Final Environmental Impact Report

Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project



Lead Agency:

Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
111 N. Hope Street, Room 1044
Los Angeles, California 90012

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CHAPTER 1
INTRODUCTION

The Los Angeles Department of Water and Power (LADWP) has prepared this Final Environmental Impact Report (Final EIR) for the proposed Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (proposed project). This Final EIR contains comments and responses to comments received on the Draft EIR, which analyzed the potential environmental impacts associated with implementation of the proposed project. This Final EIR has been prepared in accordance with the California Environmental Quality Act of 1970 (CEQA) (California Public Resources Code § 21000, et. seq., as amended) and its implementing guidelines (State CEQA Guidelines, California Code of Regulations, Title 14, Section 15000 et. seq., 2023).

Section 15367 of the CEQA Guidelines (14 California Code of Regulations 15000–15387) states that a CEQA lead agency is "the public agency which has the principal responsibility for carrying out or approving a project." Therefore, as a municipal utility that would fund, implement, and have discretionary approval authority for the proposed project, LADWP is the lead agency responsible for compliance with CEQA. The City of Los Angeles Board of Water and Power Commissioners, in order to approve the proposed project, must certify that the Final EIR was prepared in accordance with CEQA and other applicable codes and guidelines, and must take into account the conclusions contained in the Final EIR when considering approval of the proposed project.

The Draft EIR was originally circulated for a public comment period from October 31, 2024, to December 20, 2024. The public review period was extended five times and officially concluded on April 7, 2025. The comments and responses to comments are presented in Chapter 2, Response to Comments on the Draft EIR. Minor revisions and clarifications to the Draft EIR made in response to comments and/or as initiated by the lead agency are included in Chapter 3, Text Revisions and Additions to the Draft EIR.

1.1 Proposed Project Background

LADWP has identified the proposed project as integral to the goal of implementing a carbon-free energy system providing reliable and sustainable electrical power for the City of Los Angeles (City). Based on findings in the Los Angeles 100% Renewable Energy Study prepared by the National Renewable Energy Laboratory and LADWP, as well as the 2022 Power Strategic Long-Term Resource Plan prepared by LADWP (now referred to as the LA100 Plan), the continued availability of local energy generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area is necessary to maintain the resilience and reliability of the City's electrical power grid. LADWP's Scattergood Generating Station (Scattergood) has been identified as the most immediate and instrumental location in relation to the requirement for firm (i.e., dependable) in-basin generation capacity due to the projected demand for energy in areas of the City that Scattergood serves.

1.2 Summary of Proposed Project

The proposed project would allow for the generation capacity of existing Scattergood Units 1 and 2, which are conventional natural-gas-fired steam boiler generators, to be replaced with a rapid-response combined-cycle generation system (CCGS) capable of operating on a fuel mixture of natural gas with a minimum of 30 percent hydrogen by volume. The proposed CCGS would consist of a combustion-turbine generator and a steam-turbine generator operating in tandem. Additional facilities or ancillary functions required to support the proposed CCGS include, but are

not limited to, an air-cooled condenser, wet-surface air cooler, gas compressors, switchyard upgrades, and a dedicated pipeline for industrial wastewater discharge in Vista Del Mar.

With the implementation of expanded renewable generation resources, improvements to transmission systems, increased energy storage, and other elements of the LADWP carbon-free energy system outlined in the 2022 Power Strategic Long-Term Resource Plan, LADWP's in-basin generation units, including the proposed project, are anticipated to be utilized less frequently than under current conditions, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the in-basin units would be used during relatively short-term periods when renewable generation sources and/or transmission assets become unavailable due to emergency circumstances. Therefore, it is anticipated that the proposed project CCGS would be operated at a substantially lower capacity factor (i.e., the ratio of actual generation output to the potential capacity of the generation unit) compared to similar units in service today. However, the proposed project is nonetheless critical in maintaining the resilience and reliability of the LADWP power system under stressed conditions and thus, would be an integral part of the future carbon-free grid.

The green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how production would occur, and how it would be delivered to and stored at the facility. Hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available. LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the proposed project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the impacts related to the combustion of such a fuel mixture were analyzed in the Draft EIR.

1.3 CEQA Environmental Process

CEQA requires preparation of an EIR when there is substantial evidence supporting a fair argument that a proposed project may have a significant effect on the environment. The purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The EIR process is intended to facilitate the evaluation of potentially significant direct, indirect, and cumulative environmental impacts of a proposed project, and to identify feasible mitigation measures and alternatives that might reduce or avoid the project's significant effects. In addition, CEQA specifically requires that an EIR identify those adverse impacts determined to remain significant after the application of mitigation measures.

1.3.1 Notice of Preparation and Initial Study

As the lead agency for the proposed project, LADWP must complete an environmental review to determine if implementation of the project would result in significant adverse environmental impacts. To fulfill the purpose of CEQA, an Initial Study was prepared to assist in making that determination. Based on the conclusions of the Initial Study, a Notice of Preparation (NOP) was posted with the Los Angeles County Registrar-Recorder/County Clerk and in the *Los Angeles Times* and *El Segundo Herald* newspapers, and distributed to 63 agencies, organizations,

California Native American tribal contacts provided by the Native American Heritage Commission, and other interested parties, and owners and occupants located within 500 feet of the project site to inform that LADWP planned to prepare a Draft EIR and to request input regarding the scope and content of the environmental analysis and information to be included in the Draft EIR. The NOP and Initial Study were circulated for public comment to the State Clearinghouse of the Governor's Office of Planning and Research (now referred to as Office of Land Use and Climate Innovation), agencies, and other interested parties on May 15, 2023, for a 30-day review period, ending June 14, 2023. A request for an extension to submit comments was granted for an additional two weeks until June 30, 2023. A second request for an extension was received, and the review period was extended for an additional two weeks, until July 14, 2023, resulting in a 60-day public comment and review period. Refer to Appendix A of the Draft EIR for the NOP/Initial Study.

During the public comment period, a public scoping meeting for the project was held on June 6, 2023. The purpose of the meetings was to seek input from public agencies, organizations, and the general public regarding the environmental issues and concerns related to implementation of the proposed project. Two oral comments were received during the public scoping meeting, and a total of nine written comment letters were received during the NOP scoping period. The comment letters received during the NOP/Initial Study public comment and review period are included in Appendix A of the Draft EIR and Chapter 3, Text Revisions and Additions to the Draft EIR, of the Final EIR.

Based on the nature and scope of the proposed project, the evaluation contained in the Initial Study, and the comments received from agencies and members of the public during review of the NOP scoping process, resource topics that have the potential to involve significant adverse environmental impacts were evaluated in the Draft EIR.

1.3.2 Notice of Availability and Draft EIR

The public review period for the Draft EIR was conducted pursuant to CEQA and its implementing guidelines. The purpose of the public review period was to provide interested public agencies, organizations, and individuals with the opportunity to comment on the contents and accuracy of the document. The Draft EIR was originally circulated for a 50 day-public comment period from October 31, 2024, to December 20, 2024. A total of five requests for extensions to submit comments were granted, as follows:

- First extension to January 29, 2025
- Second extension to February 13, 2025
- Third extension to March 10, 2025
- Fourth extension to March 14, 2025
- Fifth extension to April 7, 2025

As a result, the Draft EIR was circulated for public review for a total of 159 days, which concluded on April 7, 2025.

The Draft EIR and the Notice of Completion were distributed to the State Clearinghouse of California Governor's Office of Planning and Research (now referred to Office of Land Use and Climate Innovation). The Notice of Availability was posted with the Los Angeles County Registrar-Recorder/County Clerk, in the *Los Angeles Times, El Segundo Herald*, and *Torrance Daily Breeze* newspapers, and distributed to over 500 agencies, organizations, California Native American tribal contacts provided by the Native American Heritage Commission, and other interested parties, and owners and occupants located within 500 feet of the project site. A public meeting

was held during the Draft EIR public review period on November 20, 2024, via Zoom to provide a presentation about the project and solicit comments from the public.

A total of 48 oral comments were received during the public scoping meeting, and a total of 53 written comment letters were received during the Draft EIR public comment and review period. The comments received during the Draft EIR public comment and review period are included in Chapter 2, Responses to Comments on the Draft EIR, of the Final EIR.

1.3.3 Final EIR

As described above, the comments and responses to comments are presented in Chapter 2, Response to Comments on the Draft EIR, and minor revisions and clarifications to the Draft EIR made in response to comments and/or as initiated by the lead agency are included in Chapter 3, Text Revisions and Additions to the Draft EIR.

Prior to approval of the proposed project, the City of Los Angeles Board of Water and Power Commissioners is required to certify that this Final EIR has been completed in accordance with CEQA, that the Final EIR reflects the independent judgment of the lead agency, and that the information in this Final EIR has been considered during the review of the proposed project. CEQA also requires the Board of Water and Power Commissioners to adopt "findings" with respect to each significant environmental effect identified in the Final EIR (CEQA Guidelines Section 15091). For each significant effect, CEQA requires the approving agency to make one or more of the following findings:

- Changes or alterations have been required in, or incorporated into, the proposed project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

If the Los Angeles Board of Water and Power Commissioners concludes that the proposed project would result in significant effects that have been identified in this Final EIR but are not substantially lessened or avoided by feasible mitigation measures, it must adopt a Statement of Overriding Considerations in order to approve the proposed project (Cal Pub. Res. Code Section 21081 [b]). In addition, the Los Angeles Board of Water and Power Commissioners must also adopt a Mitigation Monitoring and Reporting Program describing the changes that were incorporated into the proposed project or made a condition of approval in order to mitigate or avoid significant effects on the environment (Cal. Pub. Res. Code Section 21081.6). The Mitigation Monitoring and Reporting Program is adopted at the time of approval of the proposed project and is designed to ensure compliance during implementation of the proposed project. Upon approval of the proposed project, the lead agency will be responsible for implementation of the Mitigation Monitoring and Reporting Program.

The documents constituting the record of proceedings are available for review by responsible agencies and interested members of the public online (ladwp.com/environmental-reports) or by appointment during normal business hours at the offices of the LADWP at 111 N. Hope Street, Room 1044, Los Angeles, CA 91102.

1.4 Organization of this Final EIR

This Final EIR is organized as follows:

Chapter 1 (Introduction) provides a summary of the proposed project, an overview of the CEQA environmental review process, and a description of the organization of the Final EIR.

Chapter 2 (Responses to Comments on the Draft EIR) provides a list of agencies, organizations, and individuals commenting on the Draft EIR, copies of the written and verbal comments received during the Draft EIR public comment period, and the lead agency responses to those comments.

Chapter 3 (Text Revisions and Additions to the Draft EIR) provides clarifications and minor modifications that were made to the text of the Draft EIR. Clarifications and modifications reflect changes as a result of a comment made by an agency or individual during the public review period, and do not constitute significant new information and do not change any of the conclusions of the document.

Appendix

Appendix A (Mitigation Monitoring and Reporting Program) provides LADWP's plan for the implementation of mitigation measures recommended in the EIR.

CHAPTER 2
RESPONSES TO COMMENTS ON THE DRAFT EIR

The Draft EIR was distributed for public review from October 31, 2024, through April 7, 2025, pursuant to CEQA Guidelines Section 15105. According to CEQA Guidelines Section 15088(a), "the lead agency shall evaluate comments on environmental issues received from persons who reviewed the Draft EIR and shall prepare a written response." This chapter provides responses to written comments received during the public review period, including transcribed verbal comments received during the Draft EIR public meeting held on November 20, 2024 via Zoom.

Each comment letter has been assigned a letter ("A" to denote public agencies; "P" to denote interested parties) and number, as identified in Table 2-1. Specific comments within the body of each letter are delineated and numbered in the left margin. The responses to each numbered comment are provided following the reproduction of the letter.

2.1 List of Commenters on the Draft EIR

Table 2-1
List of Commenters on the Draft EIR

Letter No.	Individual/Signatory	Affiliation	Date
PUBLIC AGENCIES			
State			
A1	Heather A. Pert, Environmental Program Manager, South Coast Region	California Department of Fish and Wildlife (CDFW)	12/19/2024
County/Regional			
A2	Danica Nguyen, Air Quality Specialist, CEQA Intergovernmental Review	South Coast Air Quality Management District (SCAQMD)	11/06/2024
A3	Sam Wang, Program Supervisor, CEQA Intergovernmental Review	South Coast Air Quality Management District (SCAQMD)	01/23/2025
Local			
A4	Elias Sassoon, Director of Public Works Department	City of El Segundo, Public Works Department	11/26/2024
INTERESTED PARTIES			
P1	Alicia Rivera	Communities for a Better Environment	11/20/2024
P2	Jim Stewart		11/20/2024
P3	Roselyn Tovar	Communities for a Better Environment	11/20/2024
P4	Olga Mandrussow		11/20/2024
P5	Laura Gracia	Communities for a Better Environment	11/20/2024
P6	Theo Caretto	Communities for a Better Environment	11/20/2024
P7	Janessa Kurland		11/20/2024
P8	Heena Singh	California Environmental Justice Alliance	11/20/2024
P9	Andrea León-Grossmann	Vote Solar, West	11/20/2024

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Letter No.	Individual/Signatory	Affiliation	Date
P10	Jane Velez-Mitchell		11/20/2024
P11	Dorothy Reik	California Democratic party	11/20/2024
P12	Julia Dowell	Sierra Club	11/20/2024
P13	Karen La Cava		11/20/2024
P14	Hari Lamba	Solar Battery Hydrogen, Inc.	11/20/2024
P15	Faith Myhra	Protect Playa Now	11/20/2024
P16	Marcia Hanscom	Defend Ballona Wetlands; Coastal Lands Action Network	11/20/2024
P17	Nicolas Gardner	Sunrise Movement, Los Angeles	11/20/2024
P18	Brittany Rivas		11/20/2024
P19	Eric Gill	Extinction Rebellion Los Angeles	11/20/2024
P20	Craig Sheldon		11/20/2024
P21	Alex Jasset	Physicians for Social Responsibility, Los Angeles	11/20/2024
P22	Maria Serafin		11/20/2024
P23	David Marrett	Sierra Club; Third Act	11/20/2024
P24	Patty Glueck	Aliso Moms Alliance	11/20/2024
P25	Annie Abram	Sierra Club	11/20/2024
P26	Kevin Weir		11/20/2024
P27	Ruth Strauss	Solartopia	11/20/2024
P28	Nicole Levin		11/20/2024
P29	Emilza Guzman	Communities for a Better Environment	11/20/2024
P30	Joshua De Leon		11/20/2024
P31	Bella Gallegos	Communities for a Better Environment	11/20/2024
P32	Gregg Aniolek		11/20/2024
P33	Catherine Ronan		11/20/2024
P34	Andrea Vega	Food and Water Watch	11/20/2024
P35	Benjamin Harris	Los Angeles Waterkeeper	11/20/2024
P36	Rebecca Franke		11/20/2024
P37	Jasmin Vargas		11/20/2024
P38	Jackie Eco		11/20/2024

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Letter No.	Individual/Signatory	Affiliation	Date
P39	Amy Fung	Climate Brunch	11/20/2024
P40	Janice Lin	Green Hydrogen Coalition	11/20/2024
P41	Michael Fujimori	Sierra Club, AMG Group	11/20/2024
P42	Samantha Rangel	Communities for a Better Environment	11/20/2024
P43	Laura Rosenberger Haider	Sierra Club	11/20/2024
P44	Esther Hernández		11/20/2024
P45	María Montes	Communities for a Better Environment	11/20/2024
P46	Kathy Knight	Ballona Ecosystem Education Project	11/20/2024
P47	Robert Roy van de Hoek	Ballona Wetlands Institute; Defend Ballona Wetlands	11/20/2024
P48	Dulce	Communities for a Better Environment	11/20/2024
P49	Anna Saucedo	Communities for a Better Environment	11/20/2024
P50	Jackie Eco		11/20/2024
P51	Jake Xie	Bruin Supermileage Club, University of California Los Angeles	11/20/2024
P52	Lauren Ferree Bash	Surfrider Foundation	11/20/2024
P53	Oliver Krause	University of California Los Angeles	11/20/2024
P54	Selena Barrios		11/20/2024
P55	Stephen Weaver	Weaver & Associates	11/21/2024
P56	Vishwa Diwan	University of California, Los Angeles	11/21/2024
P57	Carey Upton		11/23/2024
P58	David Kaskowitz	Sierra Club Electric Sector Campaign	11/23/2024
P59	Mary Fitzpatrick		11/23/2024
P60	Bruce Grossan		11/25/2024
P61	Thomas L. McMahon		11/25/2024
P62	Meredith Rose		12/02/2024
P63	Salma Valdez	Communities for a Better Environment	12/04/2024
P64	Saakshi Philip	University of California, Los Angeles	12/06/2024
P65	May Raymond	University of California, Los Angeles	12/07/2024
P66	Carter Moon		12/10/2024
P67	Sophia Hua	University of California, Los Angeles	12/10/2024

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Letter No.	Individual/Signatory	Affiliation	Date
P68	Ethan Senser		12/12/2024
P69	Henry Rogers, Executive Director	Harbor Association of Industry and Commerce	01/08/2025
P70	Kimberly Caceres, Board President	South Bay Association of Chambers of Commerce	01/08/2025
P71	Rodney Boone		01/14/2025
P72	Margaret Bollock		01/19/2025
P73	Greg Thomson, Founder, Green Solutions & Technologies Bradley Cleveland, The Public Works Consulting	Green Solutions & Technologies; The Public Works Consulting	01/21/2025
P74	Catherine Ronan		01/27/2025
P75	Karin Wallerstein, CEO	Venice Chamber of Commerce	01/27/2025
P76	Andrea León-Grossmann, Deputy Program Director—West, Vote Solar Frankie Orona, Executive Director of Society of Native Nations	Vote Solar; Society of Native Nations	01/29/2025
P77	Chad Maender, President/CEO	LAX Coastal Chamber of Commerce	01/29/2025
P78	Erica Molina		01/29/2025
P79	Faith Myhra		01/29/2025
P80	Joe and Debra Galliani		01/29/2025
P81	Jonathan Leus		01/29/2025
P82	Kevin Weir		01/29/2025
P83	Laura Rosenberger Haider		01/29/2025
P84	David Klein		01/31/2025
P85	Stuart Waldman, Vice President	Valley Industry & Commerce Association	02/11/2025
P86	Diana Cassady, Facilitator	Third Act Sacramento	02/12/2025
P87	Andrea León-Grossmann, Deputy Program Director—West, Vote Solar	Vote Solar	02/13/2025
P88	Craig Barry		03/14/2025
P89	Jerry Tobe		03/24/2025
P90	Eric Crane		03/27/2025
P91	Westchester Playa del Rey Neighborhood Council	Westchester Playa del Rey Neighborhood Council	04/01/2025

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List of Commenters on the Draft EIR

Letter No.	Individual/Signatory	Affiliation	Date
P92	Gregg Aniolek		04/06/2025
P93	Andrea León-Grossmann, Deputy Program Director--West, Vote Solar Frankie Orona, Executive Director of Society of Native Nations Sim Bilal, Executive Director of Youth Climate Strike L.A.	Vote Solar; Society of Native Nations; Youth Climate Strike L.A.	04/07/2025
P94	Conner Everts, Chair, Desal Response Group, Executive Director, Southern California Watershed Alliance Andrea Vega, Southern California Senior Organizer, Food & Water Watch Jack Eidt, Co-Founder, SoCal 350 Climate Action Lydia Ponce, Lead Organizer, Idle No More So Cal/Venice Steven Starr, XRNow! Extinction Rebellion Radio Esperanza Vielma, Executive Director, Environmental Justice Coalition for Water	Southern California Watershed Alliance; Food & Water Watch; SoCal 350 Climate Action; Idle No More So Cal/Venice; XRNow! Extinction Rebellion Radio; Environmental Justice Coalition for Water	04/07/2025
P95	Benjamin Harris, Senior Staff Attorney, Los Angeles Waterkeeper David Pettit, Senior Attorney, Center for Biological Diversity Andrea Vega, Southern California Senior Organizer, Food & Water Watch Jay Parepally, Legal Fellow, Communities for a Better Environment Andrea Leon-Grossman, Deputy Program Director—West, Vote Solar Katherine Ramsey, Senior Attorney, Sierra Club; Nihal Shrinath, Staff Attorney; Sierra Club; Julia Dowell, Senior Campaign Organizer, Sierra Club Heena Singh, Energy Justice Manager, California Environmental Justice Alliance; Tyler Valdes, Interim Energy	Los Angeles Waterkeeper; Center for Biological Diversity; Food & Water Watch; Communities for a Better Environment; Vote Solar; Sierra Club; California Environmental Justice Alliance; Central Coast Alliance United for a Sustainable Economy	04/07/2025

Table 2-1
List of Commenters on the Draft EIR

Letter No.	Individual/Signatory	Affiliation	Date
	Justice Director, California Environmental Justice Alliance Lucia Marquez, Associate Policy Director, Central Coast Alliance United for a Sustainable Economy		
P96	Eric Crane		04/07/2025
P97	Laura Rosenberger Haider		04/07/2025
Notes: Comment Letter Nos. P1 through P48 refer to transcribed verbal comments that were provided at the public meeting held via Zoom on November 20, 2024. The remaining comment letters were received by the lead agency via mail or e-mail.			

2.2 Topical Responses to Comments

The following topical responses have been prepared to address similar comments that have been raised on key topics by multiple commenters during the public review period.

Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability

Commenters have stated that the Draft EIR lacks a sufficiently defined and finite reliability objective, which consequently hinders the analysis of potential project alternatives. Commenters also question whether the full generation capacity of the proposed project is necessary to meet reliability needs.

As described further herein, the project is designed to improve reliability during peak demand and emergency conditions, and the EIR is not required to provide a quantitative threshold for reliability. While it is not technically feasible to define a finite reliability objective, the following provides information regarding the proposed project's ability to meet reliability objectives, clarifies the proposed project's technical justification given the constraints associated with the alternatives considered in the Draft EIR that can achieve this objective, and discusses potential economic and other consequences of inaction. Additionally, the supplemental information provides broader context of the project considering LADWP's other clean-energy strategic initiatives.

LADWP's electric system is undergoing a comprehensive clean-energy transition. But as LADWP accelerates its shift toward a more sustainable future, the foundational responsibilities of reliability, affordability, and safety for its customers remain unchanged. The proposed project includes several objectives related to reliability, including:

- Providing resilience to maintain the reliability of the LADWP electrical power system to help meet peaks in demand that exceed available renewable generation resources and energy storage capacity as well as demand during infrequent and relatively short-term, but major, interruptions in the primary carbon-free generation and/or transmission system caused by emergency circumstances.
- Establishing a generation source that is always available, dispatchable, and local relative to the LADWP service area.
- Providing generation capacity to support grid stability and energy demand in the Scattergood service area, which includes Los Angeles International Airport (LAX), Hyperion Water Reclamation Plant (WRP), and the western districts of the City of Los Angeles.

Several converging factors contribute to the critical nature of these reliability objectives, including:

- Retirement of Scattergood Units 1 and 2, effectively mandated by the once-through cooling (OTC) policy,[1] which will create an energy capacity deficit due to transmission bottlenecks in the West Los Angeles Service Area (Westside).
- Electric-grid reliability needs, with specific risks being accelerated by climate change in the form of heat waves, wildfires, and unprecedented storms.

[1] As detailed in Section 3.2.1 of the Draft EIR, the statewide Water Quality Control Policy on the use of Coastal and Estuarine Waters for Power Plant Cooling, also referred to as the OTC Policy, was implemented by the State Water Resources Control Board (SWRCB) to establish standards to comply with federal Clean Water Act Section 316(b) and reduce potential effects on marine life associated with the operation of cooling water intake structures. The existing ocean-water OTC system at Scattergood would no longer be used once Units 1 and 2 are removed from service.

- Regulatory compliance, as required by the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) standards.

The proposed project would have the capability to deliver firm, dispatchable capacity at a specific location within the LADWP system, the Westside, which is vulnerable to stressed grid conditions due to transmission constraints. Additionally, the Westside service area holds particular importance since it includes both LAX and the Hyperion WRP.

The electrical system serving the Westside faces unique limitations that affect how electricity is reliably delivered to customers. The following points provide a general overview of these system-specific transmission constraints.

Meeting Electricity Demand: The total electricity demand, or load, on the Westside varies throughout the day and year. This demand must be met in two ways:

- *Imported power:* Electricity transmitted from outside the Westside through transmission lines.
- *Local generation:* Electricity produced by generation located within the Westside.

Transmission Limits on Imported Power: The amount of electricity that can be imported to the Westside is limited by the capacity of the local transmission system. Transmission lines can only carry a certain maximum amount of power at any given time, like the maximum flow of water through a pipe, and the corridors feeding the Westside face significant capacity constraints.

Local Generation Fills the Gap: Whenever the Westside's electricity demand exceeds the maximum power that can be imported, local power generation must provide enough electricity to cover the difference. This ensures the overall demand is met and the grid remains stable.

For example, on a hot summer day when electricity demand is high, if the Westside load exceeds the transmission import capacity, Scattergood must supply that shortage to meet electricity demand. This assumes that all transmission lines are available and operating normally. If any transmission import paths are unavailable due to outages or other issues, Scattergood generation must increase accordingly to compensate.

Challenges Due to Aging Local Generation and Reliability Planning: Local generators are scheduled to retire, including Scattergood Units 1 and 2, reducing local generation capacity that places the overall system at risk. The system must be designed to withstand the loss of its largest local generator without causing a blackout, a condition known as an "N-1 outage." However, in a scenario where the Westside load exceeds import capacity, while facing reduced local generation due to retirements or outages, there will not be enough power available to meet demand, as would be the case if the proposed project is not implemented. To maintain grid stability and avoid widespread power failures in such a scenario, it may be necessary to implement controlled reductions in electricity usage, technically referred to as "load shedding" and commonly known as "rolling blackouts," in accordance with regulatory standards.

In 2021, LADWP published the Local Capacity Technical (LCT) analysis study report. The performance criteria and methodology were coordinated with the California Independent System Operator (CAISO) to use a similar metric as was used as part of CAISO's Local Capacity Studies, which also analyze critical system events in accordance with the NERC Transmission Planning (TPL)-001 reliability standard. The LCT evaluated the relationship between Westside load, transmission capacity constraints, and Scattergood generation. The LCT determined that due to the projected load growth on the Westside, where the aggregate system peak demands for the LADWP service area were between 6,895 megawatts (MW) to 7,239 MW, there would be a generation capacity deficit at Scattergood ranging from 254 MW to 350 MW, depending on

available transmission capacity serving the Westside and the forecasted load. Without adequate Scattergood generation, NERC reliability criteria would require planned and controlled customer outages at strategic locations to avoid risk of uncontrolled widespread blackouts.

The proposed project was sized at 346 MW because multiple studies have indicated the need for this additional capacity at Scattergood, assuming the retirement of Units 1 and 2, based on current and future projections of both Westside electricity demand and the transmission capacity serving the Westside. In addition to normal projected growth in demand, there are also numerous large-load interconnection requests to LADWP totaling several hundred megawatts on the Westside. The 346 MW capacity of the proposed project was determined to provide reliability and flexibility under the uncertainty of load growth, unforeseen project delays, and the potential of transmission and generation asset outages.

It is important to note that several transmission projects are either underway or planned to improve the Westside's capacity to import renewable energy. These upgrades are expected to reduce reliance on Scattergood, limiting its operation to specific situations—such as during stressed grid conditions or when renewable resources are unavailable—based on power system reliability needs as outlined in the project objectives (see Section 3.4 of the Draft EIR). The future generation needed from the proposed project depends heavily on several key assumptions, including the advancement of renewable energy deployment, the timely completion of numerous transmission projects, electricity demand, unscheduled generator and transmission outages, and other related factors.

Unfortunately, numerous factors have contributed to delays in multiple transmission projects. The onset of the COVID-19 pandemic brought unexpected challenges throughout supply chains, including widespread factory shutdowns that disrupted equipment manufacturing, shipping, and construction due to limited staffing. As operations gradually resumed, the industry faced a significant backlog of projects and a surge in demand for equipment—demand that remaining manufacturers have struggled to meet. As a result, utilities are now experiencing extended lead times even for standard system components. Additionally, changes in federal administration have introduced new challenges, such as increased tariffs, which have complicated the equipment procurement process and further compounded project delays.

In addition, upgrading transmission capacity is a complex process that involves careful planning and coordination to ensure both safety and reliability. As part of this implementation, certain phases of construction require transmission lines to be de-energized to protect personnel working on or near the infrastructure. Importantly, as a result of the decreased transmission capacity from these planned outages, the need for local generation increases to maintain NERC-required reliability criteria and avoid customer disruptions. Therefore, many combinations of critical system upgrades cannot occur simultaneously without putting Los Angeles residents at risk of power outages. This is an important consideration for long-term planning and may lead to additional delays for necessary transmission projects, increasing the need for the reliability provided by the proposed project.

The impact of natural disaster events is another factor contributing to the need for additional capacity at Scattergood. In 2021, the Electric Power Research Institute (EPRI) conducted studies to evaluate the impact of critical natural disaster events on LADWP's transmission system. The study utilized EPRI's latest techniques and new methodologies to quantify how in-basin generation can support the local grid in events such as earthquakes and wildfires. EPRI found that the scenario with 336 MW of additional in-basin capacity following the scheduled OTC retirements is "able to best respond to the types of extreme events discussed in [the] report and

points toward the most resilient transmission plan moving into the future."[2] As an example, the Saddle Ridge Fire sequence of events was simulated, and it was determined that the additional 336 MW of local generation would reduce the likelihood of the system cascading into widespread blackouts.

Additionally, the National Renewable Energy Laboratory (NREL) evaluated potential alternatives to the proposed project, documented in a report dated February 2025.[3] This work was partly motivated by Los Angeles Council Motion (File 23-0039), which required an updated study that compared the proposed project to non-combustion alternatives, including fuel cells, energy storage, demand response,[4] and new and upgraded transmission lines. NREL's latest study acts in part as an extension of the Los Angeles 100% Renewable Energy Study (LA100 Study), which had previously identified the need to replace retiring generation capacity at the in-basin generating stations, including Scattergood Units 1 and 2.

The supplemental study considered developments in technologies and changing system conditions that have occurred since the completion of the LA100 Study analysis in late 2020. It re-evaluated the need for dispatchable capacity specifically at Scattergood and compared various technology alternatives, considering their constructability and feasibility by 2030, contribution toward system reliability, cost, siting, and air emissions.

NREL's independent analysis following the LA100 Study confirmed that no fundamental changes to the LADWP power system have altered their conclusion that new, dispatchable capacity is needed to replace the retiring Scattergood Units 1 and 2. Among NREL's findings:

- New dispatchable capacity is needed to replace the retiring OTC units at Scattergood.
- New or upgraded transmission does not appear to be a viable alternative by the 2030 requirement.
- Energy storage durations required to achieve the same level of reliability are at least 10 hours, resulting in a footprint that exceeds the land available at the Scattergood property.
- Fuel cells using 100 percent green hydrogen are unlikely to be a viable alternative to the proposed project by 2030. Fuel cells using hydrogen/natural gas blends may be a technically viable alternative but at a significantly higher cost premium and will face increased technical and operational risk/uncertainty.
- Demand response, as a stand-alone alternative, does not appear to be available in sufficient quantity in the Scattergood service area.
- Combinations can reduce the cost premium of the alternatives but are still likely to be more expensive and do not eliminate significant technology risks.

In summary, NREL found that, although there will be continued technological improvements and cost reductions in several alternatives, renewably fueled combustion turbines—like the proposed project—are likely the lowest-cost and lowest-risk option in the 2030 timeframe.

Proceeding without the proposed project would significantly increase the risk of electric-service interruptions and economic harm to LADWP's ratepayers, both to residents and businesses. NREL's latest analysis projected that in a scenario without the proposed project and where the

[2] EPRI. 2021. LADWP Climate Assessment and Transmission Resilience Analysis.

[3] NREL. 2025. Scattergood Modernization Project Alternatives: Summary of Findings. Available at: https://www.ladwp.com/sites/default/files/2025-03/Scattergood%20Moderniazation%20Alternative%20Study%20Final.pdf

[4] Demand response refers to the ways utilities or grid operators can harness demand flexibility, often to reduce demand during periods of high grid stress. These programs typically call for participation from demand-side resources.

Southern Transmission System (STS)[5] is unavailable, there would be an estimated 138 gigawatt-hours (GWh) of additional unserved energy within LADWP's system over a seven-day period in August 2030.[6] This corresponds to a potential economic impact of $1.4 to $2.8 billion from a single event.

The economic consequences of blackouts may be approximated using "blended" Value of Lost Load (VoLL) metrics retrieved from literature:[7]

Low Estimate: 138,000 megawatt-hours (MWh) × $10,000/MWh = $1.38 billion

High Estimate: 138,000 MWh × $20,000/MWh = $2.76 billion[8]

This range represents the potential economic impact of just one major outage event—in this case the STS—without accounting for broader social, health, and infrastructure consequences that accompany extended power disruptions. Beyond cost, electric-service reliability is LADWP's obligation to the people we serve. Without reliability:

- Hospitals and critical services without sufficient backup generation could be impacted.
- Long-lasting system outages may significantly impact operations at LAX, posing economic, safety, and security concerns.
- Elderly and medically vulnerable populations in urban cores face elevated health risks during summer outages.
- Disadvantaged communities, already disproportionately impacted by the cost of the clean-energy transition, would suffer real consequences without reliable power.

LADWP has a responsibility to mitigate such risks and associated outcomes through practical and affordable solutions.

No other evaluated alternative, or combination of alternatives, can meet the reliability objectives as well as the proposed project, considering factors such as feasibility, practicality, constructability, and affordability. The proposed project is not a speculative investment; rather, it is a targeted and informed response to urgent and localized reliability needs. Delaying or forgoing the project would introduce serious and avoidable risks to the residents, businesses, and communities within LADWP's service territory.

One of the central lessons from the LA100 Study is clear: no matter which path Los Angeles takes to reach 100 percent clean energy, there are certain foundational investments that must be made. These actions include major expansions in renewables and energy storage as well as critical upgrades to transmission and distribution infrastructure. Alongside these system-wide investments, also essential are the expansion of customer-facing programs, such as local solar, energy efficiency, and demand response.

[5] The STS is a major high-voltage direct current (HVDC) connecting the Intermountain Power Project (IPP) in Utah to Southern California. It also facilitates the transmission of interconnected renewables.

[6] NREL's Modeling of Alternatives to Scattergood Project (May 1, 2025), Slides 67.

[7] Lesser and Feinstein. 2020. Playing with Fire: California's Approach to Managing Wildfire Risks. Page 18, Endnote reference 69. Available at: https://media4.manhattan-institute.org/sites/default/files/californias-approach-to-managing-wildfire-risks-JL.pdf

[8] The blended VoLL is a simplified average across customer sectors, but economic consequences may be higher if higher VoLL metrics are assumed due to the presence of industrial and commercial customers in the service area.

Consistent with the investments outlined above, recent major projects involving LADWP, either as an owner/operator or through power purchase agreements with third parties, include the following:

- Eland Solar and Storage Center, a $1.5 billion investment over 25 years
- Milford II Solar, a $663 million investment over 30 years
- Heber 1 Geothermal Renewal, a $783 million investment over 25 years
- 41+ major transmission projects, which are expected to cost over $5+ billion

Further, from a broader energy system perspective, the LA100 Study emphasized that widespread electrification can lead to substantial improvements in regional air quality and public health. A reliable and resilient electric grid is foundational for a clean-energy economy, and without grid reliability, progress will be significantly hindered toward both broad economy-wide decarbonization and the reduction of local criteria pollutants. This includes NO_x from buildings, light-duty vehicles, and other mobility applications, which are far more polluting than LADWP, as shown below in Figure 1.

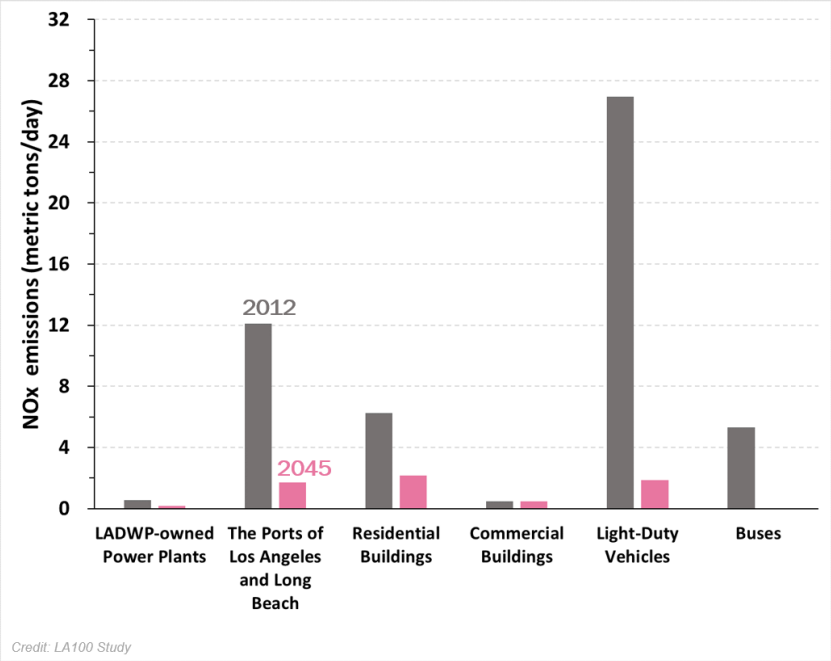

Figure 1: Per LA100 Study, City-wide NO_x emissions by sector, omitting heavy-duty trucking, which is the region's largest polluter.

The initiatives and accomplishments described above, alongside the proposed project, form the foundation of a reliable and increasingly more sustainable and equitable energy future. Ensuring the electric grid's reliability and resilience is not only essential for supporting this transition, but also fundamental to achieving our climate goals.

Topical Response No. 2 – Hydrogen

This topical response addresses public comments stating that the Draft EIR improperly piecemeals analyses related to green hydrogen supply and, therefore, inadequately assesses air quality, greenhouse gas emissions, and safety risks related to hydrogen.

Piecemealing

As described in Chapter 3, Project Description, of the Draft EIR, the proposed project would allow for the generation capacity of existing Scattergood Units 1 and 2, which are conventional natural-gas-fired steam boiler generators, to be replaced with a rapid-response combined-cycle generation system (CCGS) capable of operating on a fuel mixture of natural gas with a minimum of 30 percent hydrogen by volume. This hydrogen-ready capability would allow LADWP to begin the conversion from natural gas to green hydrogen in its in-basin combustion-turbine generation system as the City of Los Angeles transitions to a carbon-free electrical energy system. Construction of a rapid-response CCGS with the ability to operate on a fuel mixture of natural gas and hydrogen would have the potential to reduce the combustion of fossil fuels and thereby reduce GHGs.

While the proposed rapid-response CCGS would be hydrogen-ready, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. The proposed project would not produce hydrogen or require an onsite water demand to produce hydrogen, nor could hydrogen be stored onsite in the volume required for operation of the CCGS. As specified in Section 3.2.2, of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how it would be stored, and how it would be delivered to Scattergood. While truck delivery of hydrogen to Scattergood is unlikely given the large volume of hydrogen that would be required during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public.

As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist. Therefore, as stated in Section 3.3.2 of the Draft EIR, the green hydrogen system in terms of the production, delivery, and storage infrastructure will be analyzed in a separate environmental review and approval process by the separate designated lead agency when the necessary information to support an adequate analysis of potential environmental impacts is available. Accordingly, the Draft EIR does not result in piecemealing with regard to green hydrogen infrastructure, including production, delivery, and storage.

Further, CEQA does not require the EIR to evaluate the environmental impacts of other, separate projects occurring at other LADWP facilities as part of this project-level EIR. The project being proposed for consideration by the LADWP Board in connection with the EIR is limited to the Scattergood project, and the Board will not simultaneously consider any other upgrades at other LADWP facilities. As stated in **Topical Response No. 2 – Hydrogen**, there is not sufficient

information available about the potential development of other hydrogen-fueled generating units at other LADWP in-basin generating stations to support an adequate analysis of potential impacts. Potential future projects that may occur at Harbor Generating Station, Haynes Generating Station, or Valley Generating Station have separate, independent utility and will be subject to separate CEQA review once sufficient details are known to allow analysis, and the proposed project has no bearing on whether or not they may go forward. Therefore, these projects were not included in the cumulative analysis for the proposed project.

Additionally, as stated in Section 3.2.2, Green Hydrogen, of the Draft EIR, the proposed project is one of the U.S. Department of Energy (DOE) and Alliance for Renewable Clean Hydrogen Energy Systems' (ARCHES) funding recipients. Pursuant to the National Environmental Policy Act (NEPA), DOE has initiated the process to prepare an Environmental Impact Statement (EIS) to evaluate the potential impacts associated with the types of hydrogen infrastructure and technologies supported by the California Hydrogen Hub.[9] Projects are generally in the feasibility and preliminary design phases, thus, a cumulative impact evaluation including the California Hydrogen Hub funding recipients and associated projects would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public. As such, the necessary information to support an adequate analysis of potential impacts are not available and the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, in accordance with Section 15130(b)(4), would not be possible. As such, the EIR is not piecemealing foreseeable cumulative impacts under CEQA.

Air Quality and Greenhouse Gases

With regard to combustion and assessments of air quality and greenhouse gas impacts, because the combustion-turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the air quality and greenhouse gas impacts related to the combustion of such a fuel mixture were analyzed in the Draft EIR. As described in Section 3.2.2 of the Draft EIR, the CCGS that would be installed at Scattergood must be capable of combusting a mixture of natural gas and a minimum of 30 percent hydrogen by volume. (LADWP, under a competitive process, will select the exact CCGS from three turbine manufacturers and award the contract after completion of the CEQA process.) However, to provide a conservative analysis, impacts related to the combustion of 100 percent natural gas are also analyzed in the Draft EIR based on an assumption that this may be the circumstance during the initial phases of operation of the proposed CCGS. Therefore, the Draft EIR adequately defined the limits of the air quality and greenhouse gas impacts related to combustion and appropriately analyzed the applicable range of fuel-mixture (i.e., from a fuel blend with 30 percent hydrogen to 100 percent natural gas), including the "worst case" scenario of 100 percent natural gas.

Safety

With regard to hydrogen-related safety, as stated in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, while hydrogen is currently used at Scattergood in relatively small quantities in the generation unit cooling process, it would be used in greater quantities as a fuel for the proposed project combustion turbine. As stated above, the Draft EIR does not address the supply of green hydrogen to Scattergood in terms of the production, delivery, and storage infrastructure, which will be analyzed under a separate environmental document when the necessary information to support an adequate analysis of potential environmental impacts is available. LADWP would not implement or operate hydrogen infrastructure but would be a

[9] U.S. Department of Energy, Office of Clean Energy Demonstrations. California Hydrogen Hub (ARCHES) EIS Virtual Meeting Space. Available at: https://ocedarcheseis.com/, accessed August 2025.

purchaser of hydrogen to supply the proposed project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project safety impacts related to the on-site hydrogen system during operation were analyzed.

As detailed in Section 4.4 of the Draft EIR, the project's on-site hydrogen system would be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code, and the American Society of Mechanical Engineers (ASME) B31.12, which outline requirements for hydrogen piping and pipelines. The project would comply with the general hydrogen requirements of the NFPA 2, adhere to the maximum allowable quantity of hydrogen per control area for storage and usage, and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed, installed, inspected, and tested in accordance with the pressure piping and gas safety requirements. Specifically, per ASME B31.12, the project's hydrogen pipelines would be designed, constructed, operated, and maintained to account for the hydrogen embrittlement of carbon and low alloy steels and other materials. ASME B31.12 would also require LADWP to prepare and update a plan containing operating and maintenance procedures as well as an emergency plan covering facility failure, accidents, fires, potential ignition, leakage, and other emergencies. In addition, ASME B31.12 would require that training be provided for project employees and that records be maintained showing successful implementation of these plans. Extensive procedural training would be provided to staff and personnel for areas where hydrogen is handled. Required training would consist of hazards identification, communication, emergency protocols, safeguards, dispensing, processing, or use of the materials and equipment.

Additionally, per ASME B31.12, a Quality System Program (QSP) detailing how the system's quality is achieved with requirements of the ASME B31.12 and any additional requirements for the phases of the facility's lifetime would be prepared. The QSP would consist of a quality manual, quality policy and objective, structure of the facility's organization, documented procedures, and work instructions. As part of the QSP, the project's hydrogen system would undergo extensive testing and inspection prior to operation and after completion of examinations and repairs to ensure hydrogen leaks would not occur. As described in ASME B31.12, testing would include hydrostatic leak tests, pneumatic leak tests, sensitive leak tests, and alternative tests, including mechanical tests, metallurgical tests, and ferrite tests. Records of testing would be documented and retained according to the QSP. While release of hydrogen into waterways, upon the ground, or into the atmosphere is not allowed, releases would be permitted by the following: (1) federal, state, or local governing regulations, and (2) pressure relief devices and vents designated as part of a safety system. In the case that the proposed system would require releases, the project would comply with code requirements accordingly. Compliance with proper operation and maintenance would ensure prevention and/or control of piping corrosion, hydrogen-induced cracking, mechanical damage, welding or fabrication defects, and other errors or failures.

Furthermore, the Compressed Gas Association (CGA) G-5.4, Standard for Hydrogen Piping Systems at User Locations, provides the specifications and general principles recommended for piping systems for hydrogen. While the CGA standard is voluntary and not binding unless adopted by reference in regulations, the CGA recommends references to or use of the G-5.4 document by government agencies and others. Accordingly, LADWP has adopted CGA G-5.4 through its inclusion in the construction contract bid documents related to the design and construction of facilities and equipment for the proposed project. The proposed project would incorporate design criteria, piping materials, system components (i.e., pressure relief devices, isolation valves, emergency isolation valves, excess flow valves, check valves), and electrical equipment suitable for hydrogen service and for the pressures and temperatures that are encountered. Instruments and pressure gauges would be installed to reduce hazards to personnel from leakage or failure.

In addition, hydrogen gas and fire detectors and sensors would be installed to detect gas leakages, sound alarms, and/or activate shutdown if needed. The formal adoption and inclusion of CGA G-5.4 standards in project design, demonstrates LADWP's commitment to hydrogen-related safety during operations.

Therefore, as detailed and concluded in the Draft EIR, through compliance with the regulatory requirements of NFPA 2 and ASME B31.12 as well as the standards outlined in CGA G-5.4, the proposed project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Topical Response No. 3 – Environmental Justice

This topical response addresses public comments regarding environmental justice. These comments state that the Draft EIR undermines the City's environmental justice policy and does not discuss the project's impacts on environmental justice communities. This topical response also addresses public comments stating that the Draft EIR is insufficient because it does not discuss project impacts in heavily polluted environmental justice communities.

CEQA does not require an analysis of environmental justice, defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). Instead, CEQA requires analysis of whether a project may have a significant effect on the physical environment and provides that a "project may have a 'significant effect on the environment'" if, among other things, "[t]he environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly[.]" (Public Resources Code [PRC], Section 21083(b)(3)). In accordance with CEQA and as provided in the Draft EIR, the project's impacts are analyzed in Section 4.0, which includes the project's effects pertaining to air quality (Section 4.2), hazards and hazardous materials (Section 4.4), noise (Section 4.5), and wastewater (Section 4.7), among other environmental topic areas. Where impacts are found to be significant, the Draft EIR identifies feasible mitigation measures. In addition, CEQA requires a lead agency to consider whether a project's effects are "cumulatively considerable" (PRC Section 21083(b)(3)). Thus, in accordance with CEQA, the Draft EIR provides the analysis of direct, indirect, and cumulative impacts in Section 4.0 under the respective resource area chapter.

In addition to the fact that CEQA does not require analysis of environmental justice outside of the discussion of physical impacts, there is no evidence that the project will have significant impacts to a disadvantaged community. In fact, there are no populated disadvantaged communities in close proximity to the project.

Commenters state that the project site straddles two census tracts (6037980028 and 6037980030) which are identified as disadvantaged communities under Senate Bill (SB) 535, which directs the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities specifically targeted for investment of proceeds from the state's Cap-and-Trade Program.[10] CalEPA identifies disadvantaged communities using a scoring system based on pollution exposure, environmental effects, sensitive populations, and socioeconomic factors, including low-income characteristics.

Neither of the census tracts noted above contain populated communities according to the State's data for disadvantaged communities.[11] Census tract 6037980028 is within the boundaries of the City of Los Angeles and includes Los Angeles International Airport (LAX), Hyperion Water Reclamation Plant, Scattergood, and several small commercially zoned uses. Census tract 6037980030 is located within the City of El Segundo and is zoned Heavy Manufacturing. It encompasses the El Segundo Refinery and El Segundo Power Plant, and contains no residential community. The census tract also contains a strip of beach shoreline adjacent to the existing refinery and power plant, which is zoned open space and similarly contains no residential community. Therefore, claims that the project site is located in a disadvantaged community are unfounded. It should be noted that the nearest residential communities to the project site, which

[10] State of California, Office of Environmental Health Hazard Assessment. SB 535 Disadvantaged Communities. Available at: https://oehha.ca.gov/calenviroscreen/sb535, accessed July 2025.
[11] Ibid.

include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities.

Commenters also state that environmental justice concerns were raised during the Initial Study/Notice of Preparation stage, calling upon LADWP to ensure that the proposed project does not create new impacts on environmental justice communities. As discussed above, the nearest populated census tracts within the project area are not identified as disadvantaged communities. U.S. Census data indicates that these census tracts have less than 50 percent minorities and have less percentages of minorities compared with the region; therefore, these areas do not contain a minority population.[12] U.S. Census data also indicates that these census tracts have less than 50 percent of the population in poverty and have less percentages of individuals living in poverty compared with the region; therefore, these areas do not contain a poverty population. In summary, with no disadvantaged communities, no minority populations, and no poverty populations, the areas within the project site and vicinity do not contain environmental justice communities. Therefore, the project would not result in disproportionate impacts to environmental justice communities.

Furthermore, the commenters are referred to Section 4.2, Air Quality, of the Draft EIR, which discusses health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold. In addition, the chronic and acute hazard indexes would be below the significance threshold. To ensure that potential health risks in the surrounding area were fully analyzed, this HRA was based on the highly conservative assumption for the proposed CCGS of one cold start per day, one shutdown per day, and maximum operation for the remainder of the day, 365 days a year. Therefore, because the proposed project is anticipated to run intermittently and the analysis showed no exceedance of significance thresholds at full capacity, the proposed project would not expose sensitive receptors to substantial pollutant concentrations regardless of the socioeconomic status of the surrounding communities, and health risk impacts would be less than significant.

Public comments related to environmental justice concerns do not identify any new or substantially new additional analysis or require additional or modified mitigation measures to the EIR. No information that meets any of the criteria for revisions to or recirculation of the Draft EIR has been identified.

[12] U.S. Census Bureau. 2020 Census Demographic Data Map Viewer. Available at: https://maps.geo.census.gov/ddmv/map.html, accessed July 2025.

Topical Response No. 4 – Alternatives

This topical response addresses public comments stating that the EIR improperly identifies, does not fairly consider, and/or insufficiently analyzes alternatives and therefore violates CEQA. This topical response also addresses public comments stating that the Draft EIR should be informed by the National Renewable Energy Laboratory's Scattergood Modernization Project Alternatives: Summary of Findings February 2025 report (NREL Alternatives Report).

Compliance with CEQA Guidelines

As described in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to avoid or reduce those impacts in accordance with the CEQA Guidelines. CEQA Guidelines Section 15126.6(a) states that the EIR should consider a range of reasonable alternatives to the proposed project that would attain the objectives of the project and would avoid or substantially lessen any significant effects of the project. The CEQA Guidelines state there is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason and that an EIR need not consider every conceivable alternative or consider alternatives whose effects cannot be reasonably ascertained.

As stated in CEQA Guidelines Section 15126.6(f), the rule of reason "requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" and should "be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project" and "in a manner to foster meaningful public participation and informed decision-making." CEQA Guidelines Section 151261.6(f)(1) lists factors that may be taken into account when addressing the feasibility of alternatives noting that "no one of these factors establishes a fixed limit on the scope of reasonable alternatives." These factors may include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and alternative locations. Nonetheless, CEQA Guidelines Section 15126.6(f)(3) states that an EIR need not consider alternatives whose implementation is remote or speculative or those that are considered infeasible.

Project Objectives and Potential Significant Impacts

As described in Sections 3.4 and 5.2, Project Objectives, of the Draft EIR, the following objectives establish the basis for identifying potential project alternatives:

- Provide resilience to maintain the reliability of the LADWP electrical power system to help meet peaks in demand that exceed available renewable generation resources and energy storage capacity as well as during infrequent and relatively short-term, but major, interruptions in the primary carbon-free generation and/or transmission system caused by emergency circumstances.
- Establish a generation source that is always available, dispatchable, and local relative to the LADWP service area.
- Provide generation capacity to support grid stability and energy demand in the Scattergood service area, which includes Los Angeles International Airport, Hyperion Water Reclamation Plant, and the western districts of the City of Los Angeles (City).
- Reduce the emissions of greenhouse gases (GHGs) from power generation consistent with the LADWP transition to a carbon-free electrical power system.

Further, as described in Section 5.4, Summary of Project Impacts, of the Draft EIR, the proposed project was found to cause a temporary but nonetheless significant and unavoidable impact to air quality during generator commissioning activities as well as during generator operations for the equipment from one of the three vendors analyzed. Additionally, the proposed project would result in potentially significant construction-related environmental impacts that would be reduced to a less-than-significant level with the implementation of mitigation measures for air quality, biological resources, geology and soils, hazards and hazardous materials, and tribal cultural resources. Based on the objectives and the potential significant impacts identified for the proposed project, LADWP selected a reasonable range of alternatives to the proposed project to consider in the Draft EIR, as required by CEQA.

NREL's Summary of Findings Report

In February 2023, as part of the approval of the Scattergood Modernization Project ordinance, the Los Angeles City Council requested that LADWP prepare a study to compare the proposed project to non-combustion alternatives which include fuel cells, energy storage, demand response, and new transmission.[13] On March 4, 2025, the Scattergood Modernization Project Alternatives: Summary of Findings report (NREL Alternatives Report) prepared by NREL[14] was made available to the public. NREL completed the analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. This report supplements the 2021 Los Angeles 100% Renewable Energy Study (LA100 Study), also by NREL,[15] which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. The NREL Alternatives Report considers changes in technologies that have occurred since the completion of the LA100 Study and reevaluates the need for dispatchable capacity at Scattergood. The report compares the proposed project to four non-combustion alternatives (i.e., new and upgraded transmission, energy storage, fuels cells, and demand response) as well as combinations of the above technologies by considering their constructability by 2029, contribution toward reliability, cost, ability to be sited at or near Scattergood, safety, and emissions among other factors. Information and analysis applicable to the alternatives analysis in the EIR have been incorporated into the discussion below.

Alternatives Considered but Dismissed from Detailed Analysis

CEQA Guidelines Section 15126.6(c) requires that an EIR identify alternatives that were considered by the lead agency but dismissed from further consideration and briefly explain the reasons underlying the lead agency's determination, which may include factors such as infeasibility, failure to meet the project objectives, and/or inability to avoid or lessen significant environmental impacts. As discussed in Section 5.5, Alternatives Considered but Dismissed from Detailed Analysis, of the Draft EIR, alternative in-basin clean energy generation, increasing demand side management programs, expansion of new and upgraded transmission lines, retrofit of Units 1 and/or 2, and developing the proposed project at an alternative location were considered but dismissed from further analysis as summarized below.

[13] City of Los Angeles. 2023. Los Angeles City Council Motion 23-0039. February 8.

[14] National Renewable Energy Laboratory. 2025. Scattergood Modernization Project Alternatives: Summary of Findings.

[15] Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. Available at: https://maps.nrel.gov/la100/la100-study/report.

Alternative In-Basin Clean Energy Generation: As detailed in Section 5.5.1 of the Draft EIR, alternative in-basin clean energy generation is a part of LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and is already being implemented by LADWP, including multiple local solar photovoltaic programs to generate carbon-free, renewable energy for its power grid. Though local distributed renewable generation can be relatively rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always-available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented. Based on the above, the alternative was dismissed from further consideration in the Draft EIR. The NREL Alternatives Report further affirms that adding such variable renewable generation resources cannot meet the reliability requirements of the proposed project (e.g., provide electricity for multiple hours in a row [at least 10 hours] and for multiple days in a row during late summer afternoons and into the evening).

Increase Demand-Side Management Programs: As detailed in Section 5.5.2 of the Draft EIR, though increasing demand-side management programs, including increasing energy efficiency to reduce total energy consumption and demand response to reduce peak demand for energy, would reduce GHG emissions, this alternative would not supply a firm generation capacity in the Los Angeles basin nor help maintain a reliable electrical power system to meet peaks in demand or major interruptions caused by emergency circumstances. Such programs target basic demand reduction and rely on customer behavior. Aggressive demand-side management is a valuable conservation strategy and is currently being implemented by LADWP as a complement to the proposed project and will continue as planned whether or not the project is implemented. Based on the above, the alternative was dismissed from further consideration in the Draft EIR. The NREL Alternatives Report further affirms that demand response as a sole alternative to the proposed project is not a viable option because it would need to meet the reliability requirements of operating for periods of 10 hours or more for multiple days in a row and would need to be located mostly in proximity to Scattergood. The NREL report also notes that the LA100 Plan (formerly SLTRP) includes approximately 350 MW of demand response. To replace the proposed project with a demand-side management program alternative would require an additional approximately 330 MW of demand response, for a total of about 680 MW, and there is an insufficient amount of demand response potential located near the Scattergood site. Regardless, increasing demand-side management programs would not provide the reliability or supply the firm generation capacity of the proposed project.

New and Upgraded Transmission Lines: As detailed in Section 5.5.3 of the Draft EIR, new and upgraded transmission lines have already been accounted for in the SLTRP as a necessary step for LADWP to increase its inventory of imported renewable energy resources and reduce its dependence on combustion generation. While transmission capacity enables LADWP to deliver renewable energy to its end-users, it does not address LADWP's generation needs to meet peaks in demand or interruptions in the delivery of out-of-basin renewable energy. Therefore, LADWP must also maintain sufficient in-basin firm generation capacity to respond to extended transmission outages due to emergency circumstances such as wildfires, high winds, and earthquakes. New and upgraded transmission lines will continue as planned whether or not the proposed project is implemented. Based on the above, the alternative was dismissed from further consideration in the Draft EIR. The NREL Alternatives Report further states that because new transmission typically requires more than five years to deploy, this alternative cannot be available by the end of 2029 and, therefore, is not a viable alternative to the proposed project.

Retrofit Unit 1 and/or 2: As detailed in Section 5.5.4 of the Draft EIR, Units 1 and 2 are over 65 years old and though the units could be modified to help achieve reductions in air pollutant

emissions, fuel consumption, and GHG emissions, the feasibility of retrofitting the decades-old generators with dated technology would require demolition of large portions of, if not essentially the entire, units. Construction activities would potentially last several years longer than the construction of the proposed project due to the complexity of the effort and would cause an unacceptable reduction of the capacity and reliability of the LADWP electrical power system. Furthermore, since the OTC system would be removed from service at the end of 2029, a cooling system similar to the proposed project (i.e., an air cooled condenser [ACC]) would be required to keep the units operable; however, an ACC would be infeasible due to the legacy design of the existing conventional boiler units. Based on the above, the alternative was dismissed from further consideration in the Draft EIR.

Develop Proposed Project at Alternative Location: As detailed in Section 5.5.5 of the Draft EIR, constructing the proposed CCGS at another location would either require acquisition of a new property, which may be cost-prohibitive and need to undergo extensive entitlement and permitting processes, or be developed at one of LADWP's existing in-basin generation stations (i.e., Harbor Generating Station, Haynes Generating Station, or Valley Generating Station) which would not fulfill the objective of providing generation capacity to support grid stability and energy demand in the Scattergood service area. Furthermore, relocating the proposed project to an existing generating station would not avoid or lessen any of the identified significant environmental impacts because all characteristics of the project as well as all site conditions would essentially remain the same. Based on the above, the alternative was dismissed from further consideration in the Draft EIR.

Range of Alternatives Considered

Pursuant to CEQA Guidelines Section 15126.6, a range of reasonable alternatives to the proposed project that might avoid the significant impacts while fulfilling the objectives of the project were considered in the Draft EIR. Additionally, the EIR also includes analysis of a No Project Alternative to determine the consequences of not implementing the project versus implementing an alternative to the project, pursuant to CEQA Guidelines Section 15126.6(e). In accordance with CEQA Guidelines Section 15126.6, an EIR shall identify an environmentally superior alternative among the feasible alternatives, including the proposed project. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. As detailed in Section 5.6, Alternatives Development of the Draft EIR, four alternatives were identified for further analysis: the No Project Alternative (Alternative 1), Energy Storage (Alternative 2), Green Hydrogen Powered Fuel Cells (Alternative 3), and Eliminate Vendor B (Alternative 4), as summarized below.

Alternative 1 – No Project: As detailed in Section 5.6.1 of the Draft EIR, the No Project Alternative would remove Units 1 and 2 from service at the end of 2029 to comply with the OTC Policy. This alternative would eliminate short-term, construction-related impacts associated with air quality, paleontological resources, tribal cultural resources, and hazards. However, by removing Units 1 and 2 from service, this alternative would result in a significant reduction in energy produced in the Scattergood area, and therefore would not meet the project objectives for establishing a resilient, reliable, always available and dispatchable generation source for the LADWP electrical power system local to the Scattergood area. This would lead to critical outages of the electrical system in the area during periods of peak demand or during losses of imported energy under emergency circumstances, directly contrary to project objectives.

Alternative 2 – Energy Storage: As detailed in Section 5.6.2 of the Draft EIR, though technically feasible, implementation of a grid-scale battery energy storage system (BESS) to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS

and would require substantially more real estate. The NREL Alternatives Report affirms the land required for a BESS of equivalent capacity to the proposed project greatly exceeds the area available at Scattergood, even with an increased 10 hour duration (from 4 hours). Using existing case studies in California with installations of at least 100 MW, and taking into account projects with higher density BESS, the report adjusted the data to conform to the reliability requirements and determined that even with the siting characteristics of the highest density project, the capacity of energy storage potential at Scattergood would be substantially smaller than the proposed project (180 MW on 9 acres, or 60 MW on 3 acres [proposed project footprint]). Given there is insufficient land available at Scattergood for batteries to provide a full replacement alternative for the proposed project and based on the uncertainty associated with acquisition of land located near Scattergood, energy storage cannot be implemented by 2030.

Additionally, during periods of extreme peak demand, batteries would need to be recharged largely from in-basin generation during overnight time periods (likely from combustion generation sources), which may reduce the lifespan of certain electrical equipment, especially during heatwaves. Typically, reduced overnight loads allow transformers and other equipment to cool, and additional loading from storage charging would reduce cooling opportunities, potentially increasing failure rates and requiring accelerated equipment replacement and associated costs.

The NREL Alternatives Report further affirms that though non-lithium based battery types have the potential to be competitive when deployed at scale for longer-duration applications, the technologies are all in the early demonstration phase without multi-MW installations and multiple years of commercial operation, or without multiple vendors representing a robust supply chain. The report noted that the total installed capacity of all non-lithium batteries since 2020 is approximately 24 MW.

Finally, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's LA100 Plan. LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be deployed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. However, such energy storage has independent utility from the proposed project, and, furthermore, due to space constraints at Scattergood, energy storage could not be implemented within the station until after completion of the proposed CCGS because the only available property would be used as the staging area for the proposed project construction-related laydown, storage, parking, and administration.

Alternative 3 – Green Hydrogen Powered Fuel Cells: As detailed in Section 5.6.3 of the Draft EIR, implementation of a green hydrogen fuel cell system would meet some of the project objectives and reduce environmental impacts associated with commissioning and operational air pollutant emissions. However, while technically feasible, the technology at the scale required to replace the proposed project generation capacity has not been sufficiently demonstrated and may take over 10 years to implement given the amount of fuel cells and equipment needed to meet the proposed project capacity. Therefore, it does not meet the project objective to provide sufficient generation capacity to support grid stability and energy demand in the Scattergood service area. Additionally, typical lifespans for fuel stacks range from 4 to 10 years, depending on the fuel cell and operating scenario compared to the 30-year lifespan of a CCGS. Once it reaches the end of its design life, the entire fuel cell stack must be replaced, resulting in outages for Scattergood and additional costs.

The NREL Alternatives Report further affirms that the quantity of green hydrogen necessary for a 100-percent hydrogen fuel cell alternative would not be available by 2030. For the fuel cells operating on a fuel mix, the proton exchange membrane (PEM) fuel cell with the use of a reformer to convert natural gas into hydrogen and the solid oxide fuel cell (SOFC) technologies would be

viable options that could fit within the Scattergood footprint. However, the efficiency of the PEM fuel cells is lower than the proposed project and each unit of electricity generated by a PEM would require 1.5 times the fuel used by the proposed project for the same amount of electricity. The efficiency of the SOFC is similar to the proposed project, but the SOFC has long start times (typically 4-6 hours) and would typically be running at a low load to avoid shutdown. Furthermore, the largest deployed fuel cell units in the U.S. for PEM and SOFC are at 1.5 MW and 16.5 MW capacity, respectively. As such, even though this alternative would have similar requirements for hydrogen fuel and safety, operational efficiencies, and emissions rates to the proposed project, this alternative has the added uncertainty associated with the technology at the scale required to meet generation capacity and the higher costs associated with fuel usage and fuel cell equipment replacement due to a shorter lifespan than the proposed project. This alternative also does not have the option to run on 100 percent natural gas as proposed by the project in case of limited availability of hydrogen fuel which may be the circumstance during the initial phases of operation.

Alternative 4 – Eliminate Vendor B: As detailed in Section 5.6.4 of the Draft EIR, selecting either Vendor A or Vendor C and not the equipment proposed by Vendor B would reduce operational air quality impacts associated with peak VOC emissions, while all other environmental impacts would be the same as the proposed project. This alternative is technically feasible and meets all the project objectives as it is essentially the proposed project with the limitation of which vendor can be selected for project implementation.

Combination of Alternatives

The NREL Alternatives Report identified an option to combine fuel cells, energy storage (i.e., BESS), and demand response. This hybrid or combination of alternatives would not meet the reliability requirements discussed under **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** which clarifies the proposed project's technical justification and provides a broader context of the project considering LADWP's other clean-energy strategic initiatives. The combination of alternatives would also not meet the project objectives discussed in Section 3.4 of the Draft EIR. Specifically, this combination of alternatives would not establish a generation source that is always available and dispatchable.

Further, as detailed above, these combinations do not eliminate the technological risks and uncertainties associated with large-scale installations, would still be more costly to implement than the proposed project. Though air quality impacts associated with the combustion of fuel during commissioning and operations would be eliminated, implementation would require a substantially larger amount of acreage, including potentially land for additional transmission lines, which would increase the footprint of construction impacts compared to the proposed project, including potential impacts related to paleontological and tribal cultural resources as well as other environmental resources that cannot be reasonably ascertained at this time, depending on site characteristics.

While technically feasible and with similar requirements for hydrogen fuel and safety, operational efficiencies, and emissions rates to the proposed project, fuel cell technology has the added uncertainty associated with the technology at the scale required to meet generation capacity and the higher costs associated with fuel usage and fuel cell equipment replacement due to a shorter lifespan than the proposed project. Once it reaches the end of its design life, the entire fuel cell stack must be replaced, resulting in additional costs, outages for Scattergood, and increased risks to system reliability.

Implementation of a grid-scale BESS, though technically feasible, to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS and would

require substantially more real estate. The NREL Alternatives Report using existing case studies in California with installations of at least 100 MW and projects with higher density BESS and adjusting the data to conform to the reliability requirements, determined that even with the siting characteristics of the highest density project (including stacking batteries), the capacity of energy storage potential at Scattergood would be substantially smaller than the proposed project (60 MW on 3 acres [proposed project footprint]). Given there is insufficient land available at Scattergood for batteries to provide a full replacement alternative for the proposed project and based on the uncertainty associated with acquisition of land located near Scattergood, energy storage cannot be implemented by 2030. The NREL Alternatives Report further affirms that though non-lithium based battery types have the potential to be competitive when deployed at scale for longer-duration applications with a total installed capacity of approximately 24 MW since 2020, the technologies are all in the early demonstration phase without multi-MW installations and multiple years of commercial operation, or without multiple vendors representing a robust supply chain.

Furthermore, while demand side management programs would help reduce GHG emissions through the reduction in overall energy demand, they would not meet the other project objectives. Implementing a hybrid demand side management program in place of the proposed project would not help maintain a reliable electrical power system to meet peaks in demand or major interruptions caused by emergency circumstances because such programs target basic demand reduction and rely on customer behavior. Even if the demand-response goals from the SLTRP are met or exceeded, the resulting resources would not supply firm generation capacity in the Los Angeles basin. As such, demand response is a valuable conservation strategy, but it is not a reliable source of firm dispatchable generation necessary during outages of LADWP's primary carbon-free generation and/or transmission system. Aggressive demand-side management has been accounted for in the need for the proposed project and is currently being implemented by LADWP. Demand side management is complementary to the proposed project and will continue as planned whether or not the project is implemented.

Topical Response No. 5 – Baseline Environmental Conditions

This topical response addresses comments that contend that the baseline environmental condition used to evaluate the potential impacts of the proposed project, particularly in relation to air pollutant and greenhouse gas emissions, should be a hypothetical post-2029 future case when Scattergood Units 1 and 2 are no longer operating because of the mandated cessation of use of the existing ocean-water OTC system currently required for their operation.

According to CEQA Guidelines, "Generally, the lead agency should describe physical environmental conditions as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced (Section 15125(a)(1))." Ongoing activities occurring at the project site at the time CEQA review begins are generally treated as a component of existing conditions. (See, e.g., *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310.) Existing facilities and established levels of operations are also components of the existing conditions baseline. (See e.g., *Planning & Conservation League v. Department of Water Resources* (2024) 98 Cal.App.5th 726, 749; *North Coast Rivers Alliance v Westlands Water District* (2014) 227 Cal.App.4th 832, 840–41.) Consistent with these applicable standards, because Scattergood Units 1 and 2 are currently in use, recent emissions data for Units 1 and 2 were used in the Draft EIR to establish the baseline conditions to determine impacts of proposed project operations.

Nonetheless, the CEQA Guidelines do allow for the use of future conditions (e.g., when a project becomes operational) as long as those conditions are supported with substantial evidence and are not entirely hypothetical (Section 15125(a)). As applied here, a future condition in which Scattergood Units 1 and 2 are no longer operating and the proposed project has not been approved is not a reasonably foreseeable future baseline condition. Based on the imperative nature of power generation from Scattergood to prevent the disruption of the electrical grid in Los Angeles (see topical response regarding Scattergood generation and grid reliability), the shutdown of Units 1 and 2 is predicated not only on the cessation of use of the OTC system but also on the implementation of the proposed project to provide critical generation capacity at Scattergood. Absent the proposed project, the necessity to maintain as much generation capacity at Scattergood as possible would likely require a solution that would enable the continued operations of Units 1 and 2, whether through appeals to further extend the OTC deadline or through the implementation of alternative cooling technologies for the units.

In Chapter 5 of the Draft EIR (Alternatives to the Proposed Project), Section 5.5.4 (Retrofit Unit 1 and/or 2) and **Topical Response No. 4 – Alternatives** above, retrofit of Units 1 and 2 is described as an alternative that was considered, but dismissed from detailed analysis because it would not achieve the reductions in air pollutant emissions, fuel consumption, and GHG emissions that would be attained by the proposed project. While a retrofit alternative would not achieve these objectives of the proposed project, Units 1 and 2 could continue operation as steam boilers without retrofitting. Continued operation would require an alternative cooling system given removal of the OTC system from service in 2029. While a system similar to the proposed project (i.e., an air cooled condenser) was determined to be infeasible given the age of Units 1 and 2, a retrofit of the cooling system employing a wet tower (similar to cooling system retrofit projects currently planned at LADWP's Haynes and Harbor Generating Stations) would potentially be feasible. While such a retrofit would not be cost-effective or preferred when compared to the proposed project given the age of Units 1 and 2, and was therefore not considered as a feasible alternative to the proposed project in the Draft EIR, because of the critical need to maintain generation capacity at Scattergood to avoid disruptions to the grid, it would be considered in the event the proposed project does not move forward.

Therefore, it would be speculative to utilize a baseline environmental condition that does not consider emissions from Units 1 and 2. A future condition that necessarily assumes their shut down after 2029, the current deadline for the cessation of the OTC system at Scattergood, would be entirely hypothetical.

2.3 Individual Responses to Comments

All verbal and written comment letters received by LADWP during the public review period are presented below. Each comment letter has been assigned a reference number, as identified in Table 2-1. Individual comments within the body of each letter are delineated and numbered in the right margin. Responses to each numbered comment are provided following the copy of the letter.

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

December 19, 2024

Jazmin Martin
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012
Jazmin.Martin@ladwp.com

Subject: Draft Environmental Impact Report for the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project, SCH No. 2023050366, Los Angeles County, CA

Dear Jazmin Martin:

The California Department of Fish and Wildlife (CDFW) reviewed the Draft Environmental Impact Report (DEIR) from the Los Angeles Department of Water and Power (LADWP) for the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines[1].

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife.

A1-1

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Fish & G. Code, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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PROJECT DESCRIPTION SUMMARY

Proponent: LADWP

Objective: The objective of the Project is to construct and operate a rapid-response combined cycle-generation system at the Scattergood site. Primary Project activities include the construction of the CCGS and ancillary facilities, construction of retaining walls, backfilling the site, modifying in-station wastewater discharge and stormwater collection systems, and potentially constructing a wastewater line to Hyperion Water Reclamation Plant and severing the once-through cooling system.

Location: The Project is located within the cities of Los Angeles and El Segundo, in the County of Los Angeles. More specifically, the Project is located at 685 Grand Avenue, near the Vista del Mar and Grand Avenue cross streets to the southwest and west of State Highway 1. A1-2

Timeframe: The Project is anticipated to take approximately three and a half years to complete and an additional six months to test.

Biological Setting: The Project site is composed of 52.5 acres of developed land, including the southern parcel across West Grand Avenue. The southern parcel is a disturbed site that is frequently used for staging construction materials. The area surrounding the Project site is mostly developed including the Hyperion Treatment plant to the north, residential communities of the City of El Segundo to the east, and the El Segundo power plant to the south. To the west is El Segundo Beach, which is comprised of sandy beaches with patches of iceplant (*Carpobrotus edulis*). Further north of the Project site are coastal dunes that support the El Segundo blue butterfly (*Euphilotes battoides allyni*), which is listed as federally endangered under the Endangered Species Act (ESA).

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist LADWP in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

COMMENT # 1: Timing of Biological Resources Assessment

Issue: The Biological Resources Assessment should be conducted at an appropriate time of the year to ensure that a baseline biological assessment is properly attained. A1-3

Specific impact: The Biological Resources Assessment was conducted during December, a time when most species do not exhibit observable behaviors or traits. As a result, species of special concern, including those listed under the California Endangered Species Act (CESA) or ESA, may not have been observed during this period. As a result, Project activities may result in significant indirect impacts (e.g.,

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increased dust, noise, artificial lighting, and vehicle/foot traffic). These indirect impacts can lead to direct mortality, population declines, or local extirpation of sensitive or special status species that may occur in areas within and/or immediately adjacent to the Project site that were not identified during the biological assessment.

Why impact would occur: The Biological Resources Assessment was conducted during a time of year when some wildlife species, such as El Segundo blue butterfly and migratory shorebirds, may not be observable and may have been missed. Absent appropriate plant and wildlife surveys, the Project's environmental analysis lacks adequate baseline information about the number, type, and diversity of species within the vicinity of the Project to inform appropriate avoidance, minimization, and/or mitigation measures. Consequently, Project impacts may not be reduced to less than significant (as currently proposed).

Evidence impact may be significant: CEQA Guidelines section 15121 and section 15123 require the document to analyze if the Project may have a significant effect on the environment as well as review if the Project will "identify possible ways to minimize the significant effects." To analyze if a project may have a significant effect on the environment, the Project related impacts, including adequate survey results for species that may occur in the entire Project footprint, need to be disclosed during the public comment period. This information is necessary for CDFW (and other public entities) to provide meaningful comments for the purpose of avoiding impacts and to assess the significance of impact(s) relative to species (e.g., current range, distribution, population trends, and connectivity). In addition, the DEIR does not include avoidance strategies necessary to minimize impacts to sensitive or special status species that may occur within the vicinity of the Project.

A1-3
(cont'd)

Recommended Potentially Feasible Mitigation Measure(s)

Mitigation Measure #1: Biological surveys shall be conducted to establish a biological baseline, with a focus on identifying the presence or absence of sensitive or special status species and sensitive habitats, prior to finalizing the DEIR. This shall include a complete species compendium for floral and fauna and shall be conducted at the appropriate time of year. Survey results, including negative findings, analysis, recommendations, and field notes should be included in the DEIR and available for public review and comment. Based on the survey results, the Final EIR should propose avoidance, minimization, and/or specific mitigation for Project impacts to any sensitive and special status species and species found exhibiting reproductive behaviors (e.g., avoidance buffers of dens, burrows, nests, or sensitive or special status plants during blooming periods). If any sensitive or special status species are observed during the surveys, Permittee shall coordinate with CDFW before finalizing the DEIR to establish and implement appropriate avoidance, minimization, and specific mitigation measures. For botanical species, the assessment(s) will be conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant

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Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants/Info).

Mitigation Measure #2: LADWP shall conduct two pre-Project surveys within the proposed work area within a one-week period prior to the start of Project-related activities. Pre-Project surveys shall include: a) general surveys for botanical and wildlife resources; b) the identification of any active bird nests and/or animal burrows (if active, they should be recorded, monitored for species observations, and mapped); and, c) work areas with flowing or standing water shall be visibly surveyed for any aquatic species that may be impacted by Project activities. The surveys will be conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants/Info). If sensitive or special status species are observed during the pre-Project surveys, CDFW shall be notified, LADWP shall set avoidance buffer zones to reduce disturbance to the species (in coordination with CDFW), and LADWP shall monitor the species until either the Project has been completed or the species has naturally and voluntarily left the area.

A1-3 (cont'd)

Recommendation #1: The DEIR should address indirect Project impacts on biological resources, includes resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB website[2] provides direction regarding the types of information that should be reported and allows on-line submittal of field survey forms.

A1-4

LADWP should ensure data collected for the preparation of the DEIR is properly submitted.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying project approval to be operative, vested, and final.

A1-5

[2] https://wildlife.ca.gov/Data/CNDDB

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(Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist LADWP in identifying and mitigating Project impacts on biological resources. We recommend LADWP address CDFW's comments prior to adopting the DEIR. CDFW requests an opportunity to review and comment on any response that the LADWP has to our comments and to receive notification of any forthcoming hearing date(s) for the Project (CEQA Guidelines, § 15073(e)). Questions regarding this letter or further coordination should be directed to Jennifer Blackhall[3], Environmental Scientist, by phone at (858) 354-3285 and by email at Jennifer.Blackhall@wildlife.ca.gov.

A1-5 (cont'd)

Sincerely,

DocuSigned by:
Heather A. Pert
DF423498814B441...

Heather A. Pert
Environmental Program Manager
South Coast Region

ec: California Department of Fish and Wildlife
Heather A. Pert, Environmental Program Manager
Baron Barrera, Senior Environmental Scientist (Supervisory)
Felicia Silva, Senior Environmental Scientist (Specialist)
Jennifer Blackhall, Environmental Scientist
Cindy Hailey, Staff Services Analyst

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[3] Phone: (858) 354-3285; Email: Jennifer.Blackhall@wildlife.ca.gov

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California Department of Fish and Wildlife. 2023. California Natural Diversity Database. Available from: https://wildlife.ca.gov/Data/CNDDB

A1-5 (cont'd)

ATTACHMENTS

Attachment A: Draft Mitigation, Monitoring, and Reporting Program

A1-6

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Attachment A: Draft Mitigation Monitoring and Reporting Program (MMRP)

CDFW provides the following language to be incorporated into the MMRP for the Project.

Mitigation Measure	Timing	Responsible Party
Mitigation Measure #1: Updated Biological Assessment Biological surveys shall be conducted to establish a biological baseline, with a focus on identifying the presence or absence of sensitive or special status species and sensitive habitats, prior to finalizing the DEIR. This shall include a complete species compendium for floral and fauna and shall be conducted at the appropriate time of year. Survey results, including negative findings, analysis, recommendations, and field notes should be included in the DEIR and available for public review and comment. Based on the survey results, the Final EIR should propose avoidance, minimization, and/or specific mitigation for Project impacts to any sensitive and special status species and species found exhibiting reproductive behaviors (e.g., avoidance buffers of dens, burrows, nests, or sensitive or special status plants during blooming periods). If any sensitive or special status species are observed during the surveys, Permittee shall coordinate with CDFW before finalizing the DEIR to establish and implement appropriate avoidance, minimization, and specific mitigation measures. For botanical species, the assessment(s) will be conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants/Info).	Prior to Project Initiation	Project Proponent
Mitigation Measure #2: Pre-Project Surveys LADWP shall conduct two pre-Project surveys within the proposed work area within a one-week period prior to the start of Project-related activities. Pre-Project surveys	Prior to Project Initiation	Project Proponent

A1-6
(cont'd)

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shall include: a) general surveys for botanical and wildlife resources; b) the identification of any active bird nests and/or animal burrows (if active, they should be recorded, monitored for species observations, and mapped); and, c) work areas with flowing or standing water shall be visibly surveyed for any aquatic species that may be impacted by Project activities. The surveys will be conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants/Info). If sensitive or special status species are observed during the pre-Project surveys, CDFW shall be notified, LADWP shall set avoidance buffer zones to reduce disturbance to the species (in coordination with CDFW), and LADWP shall monitor the species until either the Project has been completed or the species has naturally and voluntarily left the area.			A1-6 (cont'd)
Recommendation #1: The DEIR should address indirect Project impacts on biological resources, includes resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the DEIR.	Prior to Project Initiation	Project Proponent	

Comment No. A1

December 19, 2024
Heather A. Pert, Environmental Program Manager, South Coast Region
California Department of Fish and Wildlife (CDFW)
South Coast Region, 3883 Ruffin Road, San Diego, CA 92123

Response to Comment No. A1-1

This introductory comment acknowledges receipt of the Draft EIR for review by California Department of Fish and Wildlife (CDFW) and summarizes CDFW's role in environmental review efforts. The comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. A1-2

The commenter summarizes the project description, including the proponent, objective, location, timeframe, and biological setting. The comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. A1-3

The commenter expresses concerns regarding the timing of the biological resources assessment and states that the assessment was conducted during a time of year when some wildlife species, such as El Segundo blue butterfly and migratory shorebirds, may not be observable and may have been missed. The commenter suggests that without the appropriate plant and wildlife survey, the project's environmental analysis lacks adequate baseline information about the number, type, and diversity of species within the vicinity of the project to inform appropriate avoidance, minimization, and/or mitigation measures. In addition, the commenter states that the Draft EIR does not include avoidance strategies necessary to minimize impacts to sensitive or special status species that may occur within the vicinity of the project. The commenter then suggests two mitigation measures for additional biological surveys and pre-project surveys and a recommendation to address indirect project impacts on biological resources.

As discussed in Section 4.0, Environmental Impact Analysis, of the Draft EIR, the Scattergood site consists of urban/developed and disturbed land cover on US Geological Survey maps. This includes the generation facilities, parking lots, roads, and other buildings and structures. These areas have been constructed upon or physically altered to a degree that natural soil substrates and native vegetation communities are no longer supported. There are limited areas of ornamental vegetation within the Scattergood property, and there are no natural vegetation communities or potential jurisdictional drainages or wetland features. The proposed project would construct a combined-cycle generation system (CCGS) on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. Therefore, implementation of the proposed project would not impact any riparian habitat, state or federally protected wetlands, or other sensitive natural community, and no impact to these biological resources would occur.

Based on the results of field surveys provided in the project's Biological Resources Assessment (Appendix A of the Draft EIR), which extended beyond the property boundaries and included residential neighborhoods adjacent to Scattergood, as well as a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that with the exception of the El Segundo blue butterfly (*Euphilotes battoides allyni*; ESB), none of the special-status plant and wildlife species identified by the California Natural Diversity

Database,[16] California Native Plant Society Inventory of Rare and Endangered Plants of California,[17] or Information for Planning and Consultation project planning tool[18] are expected to occur within the survey area. As a result, there would be no impacts to special-status plants or special-status wildlife species or to the movement of any wildlife species or wildlife corridors during project construction or operation.

With regard to the ESB, it should be noted that the ESB is an obligate of its host plant seacliff buckwheat (*Eriogonum parviflorum*), which is a perennial shrub and detectable year-round. The survey results outlined in the project's Biological Resources Assessment show the absence of the host plant seacliff buckwheat within the survey area. Additionally, ESB is known to be a poor disperser and to stay in close proximity to the host plant. Given the lack of suitable habitat and absence of the host plant seacliff buckwheat for this species, the commenter's recommended "Mitigation Measure #1", which requires biological surveys to establish a biological baseline, would not be warranted for the project. Incidental impacts to ESB can be avoided with implementation of the commenter's recommended "Mitigation Measure #2", which includes two pre-project surveys to be conducted within one week prior to initiation of construction activities. Accordingly, this mitigation measure will be implemented for the project and is incorporated as Mitigation Measure MM-BIO-2 in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR.

With regard to other wildlife species, it is well known that some migratory shorebirds, such as California least tern (*Sterna antillarum browni*) and western snowy plover (*Charadrius nivosus nivosus*), will nest in unusual locations when suitable habitat is scarce or unavailable, such as parking lots. However, the project footprint is within an active site and all areas that could potentially serve as alternative nesting sites for migratory shorebirds are constantly disturbed by both vehicular and pedestrian traffic that are part of the day-to-day activities at the project site. No active nests or birds displaying overt nesting behavior were observed during the field survey, and no trees are located within the footprint of the proposed project facilities. Since no trees suitable for nesting would be removed for the project, no direct impacts would occur. Indirect impacts to nesting birds within the survey area could occur as a result of noise, increased human presence, and vibrations resulting from construction activities. Disturbances related to construction could result in increased nestling mortality due to nest abandonment or decreased feeding frequency. Trees suitable for nesting are not generally located adjacent to areas of Scattergood that would be subject to construction activity. Nonetheless, as described in Section 4.0, Environmental Impact Analysis, of the Draft EIR, because indirect impacts to nesting birds could occur, Mitigation Measure MM-BIO-1, Nesting Bird Surveys, shall be implemented during project construction to ensure indirect impacts to nesting birds would be less than significant. Furthermore, as described above, the project would incorporate the commenter's recommended "Mitigation Measure #2" to conduct pre-construction surveys. If sensitive or special status species are observed during the pre-construction surveys, LADWP shall notify CDFW and coordinate on appropriate avoidance measures.

Therefore, the timing of the project's Biological Resources Assessment was adequate and the project's environmental analysis does not lack adequate baseline information about the number,

[16] California Department of Fish and Wildlife. 2023. RareFind 5, California Natural Diversity Database, California. Database report on threatened, endangered, rare or otherwise sensitive species and communities for the USGS Venice, Inglewood, Torrance, and Redondo Beach, California 7.5-minute quadrangles.

[17] California Native Plant Society. 2023. Inventory of Rare and Endangered Plants of California (online edition, v9.5). Available at: http://www.rareplants.cnps.org/. Accessed January 2023.

[18] U.S. Fish and Wildlife Service. 2023. IPaC Information for Planning and Consultation. Available at: https://ecos.fws.gov/ipac/. Accessed January 2023.

type, and diversity of species within the vicinity of the project to inform appropriate avoidance, minimization, and/or mitigation measures.

Response to Comment No. A1-4

The commenter requests that any special status species and natural communities detected during Project surveys be reported to the California Natural Diversity Database (CNDDB) per the linked CNDDB instructions. The commenter also states that LADWP should ensure data collected for the preparation of the Draft EIR is properly submitted. Accordingly, LADWP will ensure that any special-status species and natural community detections during future surveys in support of this project will be reported to the CNDDB.

Response to Comment No. A1-5

The commenter provides information regarding necessary CDFW environmental document filing fees and requests notification of LADWP's responses to comments and forthcoming hearings. The commenter provides their contact information as well as a list of references. Accordingly, LADWP will ensure that a response to comments is provided along with information about the hearing date, as is standard practice.

Response to Comment No. A1-6

The commenter attaches a table of the mitigation measures and recommendation that were previously described in Comment No. A1-3. Accordingly, the commenter is referred to **Response to Comment No. A1-3.** No further response is required.

Comment No. A2

From: Danica Nguyen <dnguyen1@aqmd.gov>
Sent: Wednesday, November 6, 2024 7:17 AM
To: Martin, Jazmin <Jazmin.Martin@ladwp.com>
Cc: Sam Wang <swang1@aqmd.gov>
Subject: [EXTERNAL] Technical Data Request: Proposed Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Dear Jazmin Martin,

South Coast AQMD staff received a Draft Environmental Impact Report (EIR) for the **Proposed Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project** (SCH No.: 2023050366) (South Coast AQMD Control Number: LAC241101-17). Staff is currently in the process of reviewing the Draft EIR. The public commenting period is from 10/31/2024 – 12/20/2024.

Upon review of the files provided as part of the public review period, I was able to access the Draft EIR and Appendices on the Agency's website.

Please provide an electronic copy of any live modeling and emission calculation files (complete data files, not summaries) that were used to quantify the air quality impacts from construction and/or operation of the Proposed Project as applicable, including the following: A2-1

- CalEEMod Input Files (.json files);
- Live EMFAC output files;
- Any emission calculation file(s) (live version of Excel file(s); no PDF) used to calculate the Project's emission sources (i.e. truck operations);
- AERMOD Input and Output files, including AERMOD View file(s) (.isc);
- HARP Input and Output files and/or cancer risk calculation files (live version of Excel file(s); no PDF) used to calculate cancer risk and chronic and acute hazards from the Project;
- Any other files related to post-processing done outside of AERMOD to calculate pollutant-specific concentrations (if applicable).

You may send the above-mentioned files via a Dropbox link, which may be accessed and downloaded by South Coast AQMD staff by **COB on Wednesday, 11/13/2024**. Without all files and supporting documentation, South Coast AQMD staff will be unable to complete a review of the air quality analyses in a timely manner. Any delays in providing all supporting documentation will require additional time for review beyond the end of the comment period.

If you have any questions regarding this request, please feel free to contact me.

Regards,

Danica Nguyen
Air Quality Specialist, CEQA-IGR

Planning, Rule Development & Implementation
South Coast Air Quality Management District
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Please note South Coast AQMD is closed on Mondays.

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Comment No. A2

November 6, 2024
Danica Nguyen, Air Quality Specialist, CEQA-Intergovernmental Review
South Coast Air Quality Management District (SCAQMD)
21865 Copley Drive, Diamond Bar, CA 91765
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(909) 396-3531

Response to Comment No. A2-1

The comment includes SCAQMD's request for information related to the Draft EIR. Specifically, SCAQMD requested an electronic copy of the live modeling and emission calculation files that were used to quantify the air quality impacts from construction and/or operation of the proposed project in order to complete their review of the air quality analyses in a timely manner within the public commenting period. All available files requested by the commenter were provided to SCAQMD by LADWP via email on November 7, 2024. The comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Comment No. A3

South Coast
Air Quality Management District
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SENT VIA E-MAIL:
jazmin.martin@ladwp.com
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Jazmin Martin, Environmental Specialist
Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
111 North Hope Street, Room 1044
Los Angeles, CA 90012

January 23, 2025

Draft Environmental Impact Report (EIR) for the Proposed Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (Proposed Project) (SCH No.: 2023050366)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The Los Angeles Department of Water and Power is the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. To provide context, South Coast AQMD staff (Staff) has provided a brief summary of the project information and prepared the following comments organized by topic of concern.

Summary of Project Information in the Draft EIR

Based on the Draft EIR, the Lead Agency proposes to construct and operate a rapid-response combined cycle generation system as the Proposed Project to replace the existing Scattergood Units 1 and 2.[1] The Proposed Project would operate on a fuel mixture of natural gas and a minimum of 30 percent (%) hydrogen by volume.[2] The Proposed Project consists of a combustion-turbine generator and a steam-turbine generator operating in tandem.[3] The Proposed Project would also install a wet-surface air cooler, new gas compressors and/or pressure reducers.[4] Based on the aerial photograph review, Staff found that the nearest sensitive receptors (e.g., residences) are adjacent to the east and northeast of the Proposed Project site. Construction would take approximately three years, starting in 2026 and continuing to mid-2029.[5] The Proposed Project's commissioning phase would occur concurrently with the final months of construction, which would be approximately six months.[6]

A3-1

South Coast AQMD Comments

Calculation of Baseline Emissions

When determining the level of significance during the operation and commissioning phases, the peak daily emissions would need to be compared to the baseline, and the incremental changes in emissions

A3-2

[1] Draft EIR. p. 3-1.
[2] *Ibid*.
[3] *Ibid*.
[4] *Ibid*. p. 3-14.
[5] *Ibid*. p. 3-15.
[6] *Ibid*. p. 3-16.

between the baseline and post-project would need to be compared to the applicable significance thresholds adopted by the lead agency or other agency such as the South Coast AQMD air quality significance thresholds.[7] The air quality discussion in Section 4.2 of the Draft EIR defines the baseline condition used in the analysis as "the daily emissions determined from the past two years of historical data for existing Unit 1 and Unit 2 on the day with highest fuel use, which represents the comparable maximum use day for the existing generators.[8]" It appears that the baseline is defined as the maximum peak daily emissions instead of averaging two years of historical emissions data. Thus, the Lead Agency potentially underestimates the emission impacts for the worst-case scenario.

A3-2 (cont'd)

Hence, Staff recommends that the Lead Agency: 1) revise the baseline to reflect an average of the actual emissions for the two-year period; 2) calculate the difference between the post-project emissions and baseline values to show the incremental effects of the Proposed Project; and 3) compare the incremental values to the applicable significance thresholds adopted by the lead agency or other agency such as the to the South Coast AQMD air quality significance thresholds to determine the level of significance for each pollutant. If the revision is not included in the Final EIR, the Lead Agency should provide reasons for not choosing the average of two years of emissions as the baseline, supported by substantial evidence in the record.

Localized Significance Threshold Analysis during Construction and Operation

The localized significance threshold (LST) analysis in the Draft EIR appears to incorrectly rely upon the LST screening tables, which, as noted in Table 3-2 of the LST methodology, are not appropriate for determining the level of significance because the Proposed Project is subject to South Coast AQMD Regulation XXX – Title V permits[9] and involves the use of large combustion sources.[10]

In addition, the air quality discussion in Section 4.2 of the Draft EIR analyzes the LST impacts during construction by relying on the LST Screening Table for source receptor area SRA Zone 3 for a project size of five acres and a receptor distance of 100 meters (328 feet).[11] The Draft EIR also contains a separate analysis of the ambient air quality impacts for the commissioning phase to ensure that the Proposed Project would not have localized impacts that would cause or contribute to an exceedance of any State or national ambient air quality standard.[12] However, according to Table 4.2-5 – Proposed Project Preliminary Construction Schedule by Phase[13], commissioning is part of the construction phase as the commissioning activities would be conducted toward the end of the construction period. Hence, the LST analysis, which relies upon the LST screening tables in the Draft EIR, would not be sufficient to determine the significance level during the construction phase. Moreover, for projects exceeding five acres in size or projects that fall into specific categories outlined in Table 3-2 of the LST methodology[14], the Lead Agency is recommended to conduct project-specific dispersion modeling to accurately assess the localized air quality impacts. Therefore, the Lead Agency is recommended to: 1) perform project-specific air dispersion modeling for the Proposed Project's construction and

A3-3

[7] *Ibid*. p.4.2-19.
[8] *Ibid*. p.4.2-19.
[9] South Coast AQMD Regulation XXX available at https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xxx
[10] South Coast AQMD Final Localized Significance Threshold Methodology available at https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf
[11] *Ibid*. p. 4.2-37.
[12] *Ibid*. p. 4.2-24.
[13] *Ibid*. p.4.2-17.
[14] South Coast AQMD Final Localized Significance Threshold Methodology available at https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf

operational phases to determine the localized air quality impacts; and 2) include the results in the Final EIR. A3-3 (cont'd)

Additional Clarification Required Regarding the Air Quality Impact Analysis

The Air Quality discussion in Section 4.2 of the Draft EIR describes the air quality impact analysis (AQIA) for operating the turbine as provided for three turbine vendors, each with two scenarios which assume the turbines utilize 100% natural gas and a minimum of 30% hydrogen fuel blend. For the 1-hour averaging time for CO, NO2, and SO2 and the 8-hour averaging time for CO, the Draft EIR applies a different assumption than what is provided in the Appendix B spreadsheet. The Draft EIR discusses the results of AQIA which assumed cold startup emissions for both fuel-type scenarios to calculate the 1-hour and 8-hour averaging times.[15] Meanwhile, the spreadsheet in Appendix B shows that the 1-hour and 8-hour averaging times for the hydrogen fuel blend assumed normal operating conditions, instead of cold start up conditions. Staff recommends that the Lead Agency remedy this inconsistency between what is described in Chapter 4 and what is relied upon for the calculations in Appendix B and revise the analysis accordingly. A3-4

Recommend Clarifying and Revising the Air Quality Analysis for the Commissioning Phase

The air quality discussion in Section 4.2 of the Draft EIR mentioned that construction of the Proposed Project would take approximately three years, comprising seven phases which includes the commissioning phase, as shown in Table 4.2-5 – Proposed Project Preliminary Construction Schedule by Phase.[16] However, during the permit application evaluation, Staff found that the commissioning emissions are analyzed and attributed to the operation phase, accounting for 1,282 hours of 8,760 hours per year[17] (this value represents Vendor A commissioning emissions, Application Number (A/N) 652361 for the main Title V permit revision application, A/N 652362 for the turbine, and A/N 652363 for the selective catalytic reduction (SCR) unit. Due to the discrepancies between the Draft EIR and these applications, the Lead Agency is recommended to include a discussion in the Final EIR and update the applications accordingly to provide clarification on what activities constitute the commissioning phase and whether these activities would occur either during construction or operation. A3-5

Greenhouse Gas (GHG) Analysis

The analysis of GHG emissions in Section 4.3 of the Draft EIR explains that the GHG significant threshold applied to the Proposed Project, as noted in Table 4.3-1 – CEQA Thresholds of Significance for GHGs, is 10,000 metric tons of CO2 equivalent per year (MT/yr CO2eq) for construction.[18] Meanwhile, for operation, Table 4.3-3 relies on the GHG thresholds of 1,110 pounds per megawatt-hour-net (lb/MWh-Net) from California Senate Bill (SB) 1368 and 1,000 lb/MWh-Gross from the U.S. EPA's New Source Performance Standard (NSPS) Subpart TTTT.[19] Although the long-term GHG operational impacts are shown to be less than the federal State standards for all three vendors, it is not clear if the total GHG emissions from operations would also be less than 10,000 MT/yr CO2eq. As such, the Lead Agency is recommended to also estimate the operational GHG emissions from the Proposed Project in terms of MT/yr CO2eq and compare A3-6

[15] *Ibid*. Table 4.2-22 to Table 4.2-27. p.4.2-30 to p.4.2-36.
[16] *Ibid*. Table 4.2-5. p. 4.2-17.
[17] Permit Application. Appendix B – GE Commissioning Emissions Summary.
[18] *Ibid*. Table 4.3-2. p. 4.3-10.
[19] *Ibid*. Table 4.3 -3. p. 4.3 -11.

that amount to the existing environmental setting/baseline conditions to determine if the GHG impacts are significant.

In addition, it is unclear in the Draft EIR how the CEQA baseline for the existing environmental setting and post-project GHG emissions were defined for the Proposed Project. The GHG baseline should discuss existing conditions, including direct and indirect on-site and off-site sources. To calculate GHG emissions for both the baseline and post-project conditions, the Lead Agency is recommended to first convert the emissions of CO2, CH4, and N2O into CO2eq by applying the appropriate Global Warming Potentials (GWPs) and then subtract the baseline emissions from the post-project emissions to determine the incremental change.[20] The GHG analysis in the Draft EIR should also discuss post-project scenarios for GHG sources by addressing both construction and all operational GHG sources. GHGs from short-term construction activities are typically amortized over 30 years. To amortize GHGs from temporary construction activities over a 30-year period (estimated life of the project/equipment), the amount of CO2eq emissions during construction is calculated and then divided by 30. Relative to operational activities, the GHG analysis should include all direct and indirect on-site and off-site sources. As a result, the Lead Agency is recommended to revise the GHG analysis in the revised CEQA document or the Final EIR. A3-6 (cont'd)

Green Hydrogen Delivery Analysis

The project description in Chapter 3 of the Draft EIR mentioned that the Lead Agency would not implement or operate the hydrogen infrastructure on-site but would purchase green hydrogen to supply the Proposed Project.[21] Even though the Lead Agency intends to analyze the supply of hydrogen in a separate environmental review, Staff recommends that the Lead Agency should include a worst-case scenario analysis of the different scenarios on how the green hydrogen can be delivered to the Proposed Project site, such as via delivery trucks or transfer via pipelines. For instance, if trucks are used to transfer the green hydrogen to the facility, the Lead Agency should estimate the number of trucks that will be needed per day (based on the amount of hydrogen needed) with the truck routes, re-calculate the operational emissions, and re-estimate the health risk assessment to account for the additional trucks coming and leaving the Proposed Project site. If transferring via pipeline, then the Lead Agency should include an analysis of constructing a new pipeline (if applicable) and update the construction analysis in the Final EIR accordingly. Regardless of the method, the emissions associated with hydrogen delivery should be incorporated into the associated construction or operation phases and compared to the corresponding South Coast AQMD regional thresholds. A3-7

Recommend Revising the EIR to Include All Information and Associated Analyses

The Proposed Project will occur at a facility (South Coast AQMD Facility ID 800075) which is subject to South Coast AQMD Regulation XVII – Prevention of Significant Deterioration (PSD)[22], Regulation XX – Regional Clean Air Incentives Market (RECLAIM)[23], Regulation XXX – Title A3-8

[20] The most recent Global Warming Potentials (GWPs) are available on U.S. EPA's website at: https://www.epa.gov/ghgemissions/understanding-global-warming-potentials

[21] *Ibid*. p. 3-3.

[22] South Coast AQMD Regulation XVII available at https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xvii

[23] South Coast AQMD Regulation XX available at https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xx

V Permits.[24] However, the Draft EIR and Appendix B contain no information or discussion regarding these regulatory requirements and the associated analyses. However, information pertaining to these regulatory requirements was submitted separately with the permit applications, which are being reviewed by the South Coast AQMD Engineering and Permitting (E&P) Division. Thus, Staff recommends including the same information from the permit applications and associated analyses in the Final EIR to ensure consistency with the contents in the applications transmitted to the South Coast AQMD E&P Division. *South Coast AQMD Air Permits and Role as a Responsible Agency*

A3-8 (cont'd)

The Proposed Project would require the use of new stationary and portable sources, including but not limited to a turbine, compressors, emergency generators, fire water pumps, boilers, etc., for which air permits from South Coast AQMD will be required. Additionally, the Draft EIR mentioned that new gas compressors and/or pressure reducers would be installed. However, it is unclear if this type of equipment is driven by electric motor or an engine. Permits may be required depending on what powering the gas compressors and/or pressure reducers. The Final EIR should include a discussion about the South Coast AQMD rules that may be applicable to the Proposed Project. In addition to the regulations mentioned earlier in this letter, the following rules and regulations may apply to the Proposed Project, including but not limited to Regulation II – Permits[25], Regulation IV – Prohibitions[26], Rule 1135 – Emissions of NOx From Electricity Generating Facilities[27], Regulation XIII – New Source Review[28], and Regulation XIV – Toxics and Other Non-Criteria Pollutants.[29]

In addition, it is important to note that since air permits from South Coast AQMD are required, South Coast AQMD's role under CEQA is as a Responsible Agency. CEQA Guidelines Section 15096 sets forth specific procedures for a Responsible Agency, including making a decision on the adequacy of the CEQA document for use as part of the process for conducting a review of the Proposed Project and issuing discretionary approvals. Also, as set forth in CEQA Guidelines Section 15096(h), the Responsible Agency is required to make Findings in accordance with CEQA Guidelines Section 15091 for each significant effect of the project and issue a Statement of Overriding Considerations in accordance with CEQA Guidelines Section 15093, if necessary. Lastly, as set forth CEQA Guidelines Section 15096(i), the Responsible Agency may file a Notice of Determination.

A3-9

In light of these procedural requirements under CEQA, it is important to note that if a Responsible Agency determines that a CEQA document is not adequate to rely upon for its discretionary approvals, the Responsible Agency must take further actions listed in CEQA Guidelines Section 15096(e), which could have the effect of delaying the implementation of the Proposed Project. In its role as CEQA Responsible Agency, the South Coast AQMD is obligated to ensure that the CEQA document prepared for the Proposed Project contains a sufficient project description and analysis to be relied upon in order to issue any discretionary approvals that may be needed for air permits, as well as to make Findings, issue a Statement of Overriding Considerations and file a Notice of Determination, if applicable. South

[24] South Coast AQMD Regulation XXX available at http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xxx
[25] South Coast AQMD Regulation II available at https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-ii
[26] South Coast AQMD Regulation IV available at https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-iv
[27] South Coast AQMD Rule 1135 available at http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1135.pdf
[28] South Coast AQMD Regulation XIII available at https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xiii
[29] South Coast AQMD Regulation XIV available at https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/regulation-xiv

Coast AQMD is concerned that the project description and analysis in its current form in the Draft EIR is inadequate to be relied upon for this purpose.

For these reasons, the analysis should be revised so that the Final EIR includes a discussion about any and all new stationary and portable equipment requiring South Coast AQMD air permits, provide the evaluation of their air quality and GHG impacts will be relied upon as the basis for the permit conditions and emission limits for the air permit(s). Please contact South Coast AQMD's E&P Division at (909) 396-3385 for questions regarding what types of equipment would require air permits. For more general information on air permits, please visit South Coast AQMD's webpage at https://www.aqmd.gov/home/permits. A3-9 (cont'd)

Conclusion

As set forth in Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(a-b), the Lead Agency shall evaluate comments from public agencies on the environmental issues and prepare a written response at least 10 days prior to certifying the Final EIR. As such, please provide South Coast AQMD written responses to all comments contained herein at least 10 days prior to the certification of the Final EIR. In addition, as provided by CEQA Guidelines Section 15088(c), if the Lead Agency's position is at variance with recommendations provided in this comment letter, detailed reasons supported by substantial evidence in the record to explain why specific comments and suggestions are not accepted must be provided. A3-10

Thank you for the opportunity to provide comments. South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Danica Nguyen, Air Quality Specialist, at dnguyen1@aqmd.gov or myself at swang1@aqmd.gov should you have any questions.

Sincerely,

Sam Wang

Sam Wang
Program Supervisor, CEQA IGR
Planning, Rule Development & Implementation

SR:MK:BR:BB:ND:SW:DN
LAC241101-17
Control Number

Comment No. A3

January 23, 2025
Sam Wang, Program Supervisor, CEQA Intergovernmental Review
South Coast Air Quality Management District (SCAQMD)
21865 Copley Drive, Diamond Bar, CA 91765-4178
swang1@aqmd.gov
(909) 396-2000

Response to Comment No. A3-1

This introductory comment acknowledges receipt of the Draft EIR for review by the SCAQMD and summarizes the proposed project. The comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. A3-2

The commenter expresses concerns related to the calculation of baseline emissions and states that the Draft EIR's baseline emissions are defined as the maximum peak daily emissions instead of averaging two years of historical emissions data. The commenter states that the Lead Agency has potentially underestimated the emission impacts for the worst-case scenario and recommends revising the emission calculations.

The Draft EIR's baseline emissions use peak daily operating conditions for Units 1 and 2 and compares them to an extremely conservative (i.e., likely to result in the highest probable emissions) calculation of the maximum daily emissions under the project conditions. As described on page 4.2-19 in Section 4.2, Air Quality, of the Draft EIR, peak daily emissions from the proposed units were estimated based on one cold start per day, one shutdown per day, and maximum operation for the remainder of the day—a highly conservative assumption, which is unlikely to occur but provides a reasonable projection of the maximum potential to emit from the proposed units. These were compared to the baseline, defined as the daily emissions determined from the past two years of historical data for existing Units 1 and Unit 2 on the day with highest fuel use, which represents the comparable maximum use day for the existing generators.

In other words, the Draft EIR appropriately uses an "apples to apples" comparison by evaluating maximum actual emissions under current conditions with maximum project emissions under project conditions. The emissions change between the baseline and the proposed units was compared to the SCAQMD CEQA operations significance thresholds. CEQA thresholds are in units of peak daily emissions, and comparing the actual maximum peak daily emissions to the maximum proposed emissions is a direct comparison. Emission quantification methodologies are different for different pollutants; therefore, the peak daily emissions were chosen based on the day with the highest fuel use to maintain consistency across all criteria pollutants and to provide more conservative comparison of actual historical operations for Units 1 and 2 to the operational scenario for the proposed project.

Alternatively, the Draft EIR could have compared average emissions under the baseline condition with average emissions under the project scenario, which would also be an "apples to apples" analysis. However, this analysis would be of less informational value to the reader, because emissions are highly variable, and an "average" emissions number would be far lower than actual emissions that are currently occurring on a given day, and which could occur on a daily basis under the project. The current analysis ensures that decisionmakers and the public fully understand the maximum emissions possible under the proposed project, using extremely conservative assumptions about operational conditions.

To the extent that the commenter is suggesting that the Draft EIR analyze maximum operating conditions against a baseline of average conditions over the last two years, this is not an "apples to apples" comparison and would result in an inflated assessment of project impacts. CEQA requires an assessment of the actual impacts of the proposed project – by comparing the "worst case" emissions scenario under actual current conditions and proposed project conditions, the Draft EIR ensures that decisionmakers and the public understand the actual potential impacts of the project.

Based on this maximum potential to emit analysis, the Draft EIR does not underestimate impacts, and no revisions are required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A3-3

The commenter expresses concerns related to the localized significance threshold analysis during construction and operation. The commenter states that the Draft EIR incorrectly relied upon the Localized Significance Threshold (LST) screening tables due to the project type and size and recommends that the Lead Agency conduct project-specific air dispersion modeling.

As described in Chapter 3, Project Description, of the Draft EIR, the proposed project would construct a combined-cycle generation system (CCGS) on approximately 3 acres at the southwest corner of the northern parcel of Scattergood and in additional areas of Scattergood for ancillary facilities. The anticipated disturbed acreage would be less than 5 acres; therefore, the Draft EIR's use of the LST screening tables is appropriate. The LST analysis was completed for construction activities only. None of the criteria in Table 3-2 of the SCAQMD's *Final Localized Significance Threshold Methodology* guidance document, such as those subject to Title V or RECLAIM, applies to construction activities. Furthermore, it should be noted that consistent with SCAQMD's recommendations, the Draft EIR included project-specific air dispersion modeling based on the worst-case dispersion (i.e., lowest flow rate and temperature) for commissioning and operation, as detailed in the project's *Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis Report* (Section 4.3 in Appendix B of the Draft EIR).

In addition, as described in Chapter 3, Project Description, of the Draft EIR, the active construction phase of the project would be followed by an approximately 6-month commissioning period during which the operation of the CCGS and associated systems would be tested, verified for reliability, and adjusted as necessary. Therefore, while actual construction activities and generator commissioning were evaluated as part of the construction phase of the project because they are temporary, one-time processes, they will occur sequentially, not concurrently. The 6-month commissioning period following active construction would include the first operation of the CCGS involving the combustion of fuel. The commenter is referred to Tables 4-16 through 4-21 of the project's *Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis Report (*Appendix B of the Draft EIR) for the commissioning modeling analyses.

Therefore, the project's LST screening analysis for construction and project-specific air dispersion modeling for commissioning and operations to determine the localized air quality impacts is appropriate, and no revisions to the Draft EIR are required.

Response to Comment No. A3-4

The commenter requests additional clarification regarding the air quality impact analysis related to natural gas, hydrogen fuel blend, and cold start and shutdown events. As clarified in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR, for hydrogen fuel powered scenarios, the emission averaging periods include a natural gas fueled cold start/shutdown for

the 8-hour, 24-hour, and annual averaging periods. This is inherent to the design of the turbine, which can only undergo cold start/shutdown using natural gas fuel, before it switches over to hydrogen fuel for normal operations. Cold start/shutdown was not used for the 1-hour averaging period because the intent is to show results of operation using the hydrogen fuel blend. Accordingly, there is no inconsistency between the assumptions in the Draft EIR and the Appendix B spreadsheet. Other than the text revisions and additions above, no additional clarifications or revisions to the Draft EIR are required to address this comment, and the air quality impact analysis is consistent in the EIR and calculations.

Response to Comment No. A3-5

The commenter recommends clarifying and revising the air quality analysis for the commissioning phase.

As described in Chapter 3, Project Description, of the Draft EIR, the active construction phase of the project would be followed by an approximately 6-month commissioning period during which the operation of the CCGS and associated systems would be tested, verified for reliability, and adjusted as necessary. This 6-month commissioning period would include the first operation of the CCGS involving the combustion of fuel. There would generally be no overlap between this 6-month commissioning period and any of the other construction phases. Although the permit application may have evaluated commissioning under the operating permit, the activity of commissioning more closely aligns with construction because it is a one-time, short-duration event required to prepare the CCGS for long-term operation. This 6-month commissioning period is a transitory process consisting of discrete steps (e.g., tuning, emissions testing, and reliability testing) that must be completed before installation is considered complete and energy produced by the CCGS could be reliably transmitted to the grid under operational conditions responding to demand. Based on this understanding, commissioning has been considered a phase of project construction in EIRs for all LADWP generation unit repowering projects reviewed by SCAQMD over the past 3 decades, including the SCAQMD-prepared Valley Generating Station CCGS Installation (2002), the Haynes Generating Station Repowering Project (2002), the Haynes Generating Station Units 5 & 6 Repowering Project (2004), and the Scattergood Unit 3 Repowering Project (2012). Equipment permitting includes commissioning emissions because they are released through permitted equipment, not because they are part of normal ongoing operations, and no updates are needed for the applications nor are revisions to the Draft EIR required.

Response to Comment No. A3-6

The commenter expresses concerns related to the greenhouse gas emissions analysis.

As noted in Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, construction of the proposed project would involve several phases including construction of retaining walls, Unit 3 basin backfill, compaction and grading, other site preparation, switchyard upgrade and plant construction (civil earthwork, foundations, structural steel, mechanical and electrical). During these active construction activities, greenhouse gas (GHG) emissions would primarily result from the use of off-road diesel-fueled construction equipment. The Draft EIR concluded that the impacts related to GHG emissions from the project's active construction activities would be less than significant based on annual emissions from construction activities of less than 10,000 metric tons (MT) of CO_2 equivalent (CO_2e) when amortized over 30 years, as stipulated in SCAQMD CEQA guidelines. While the Draft EIR analysis included active construction processes such as those listed above, accounting for commissioning in the GHG analysis would still yield a less-than-significant GHG emissions impact. This is demonstrated below in Table 2, which shows that

accounting for both active construction and commissioning would result in 30-year amortized construction MT CO_2e that are less than the 10,000 MT CO_2e threshold.

In addition, as noted by the commenter, the Draft EIR concluded that the impacts from the proposed project operations phase would be less than significant based on generation unit performance measured in pounds of CO_2e per megawatt-hour of energy (lb/MWh) when measured against the standards established under State of California legislation and U.S. Environmental Protection Agency regulations. The performance-based standard was considered an appropriate approach for the Draft EIR because electric grids are complex, and such metrics account for variations in electrical demand. Further, generators within an interconnected system are dispatched based on an interplay of economic factors (e.g., fuel costs, startup costs), operational constraints (e.g., ramp rates, minimum run times), grid reliability requirements, and other considerations. Nonetheless, as discussed below, GHG emissions from combined construction and operations of the proposed project would also be below the 10,000 MT/yr CO_2e threshold and would, therefore, remain less than significant.

The Draft EIR used an existing conditions baseline and calculated project impacts using an approach consistent with the methodology suggested in the comment, including amortization of construction impacts over 30 years. The MT/yr CO_2e impact from the proposed project was determined by comparing the existing baseline annual GHG emissions produced from the operation of Scattergood Units 1 and 2, which will cease operations at the end of 2029, with the projected annual GHG emissions from the proposed project, which will begin operations in 2030. The guidance provided in 40 Code of Federal Regulations (CFR) 51.165 (Review of New Sources and Modifications, Permit Requirements) was used to establish an annual GHG emissions baseline for Units 1 and 2 through the use of the average rate, in tons per year, of the actual emissions from the units during any consecutive 24-month period within the previous 5 years. This approach to establish baseline emissions is consistent with the approach used for the permit applications for the proposed project.

By examining the Continuous Emissions Monitoring Systems (CEMS) data for Units 1 and 2 over the 5-year period spanning January 1, 2020, through December 31, 2024, the consecutive 24-month period with the highest fuel use for each unit (analogous to the highest GHG emissions period) was identified. From October 1, 2020, through September 30, 2022, the total fuel consumption for Unit 1 was 1,632,146 thousands of standard cubic feet (KSCF) of natural gas, with an annual average of 816,073 KSCF. From January 1, 2020, through December 31, 2021, total fuel consumption for Unit 2 was 2,079,960 KSCF of natural gas, with an annual average of 1,039,980 KSCF. This establishes a combined annual baseline for Units 1 and 2 of 1,856,053 KSCF consumption of natural gas, from which the MT/yr CO_2e can be derived.

Based on factors included in 40 CFR 98 (Mandatory Greenhouse Gas Reporting) for natural gas stationary combustion, the annual baseline emissions of CO_2e from Units 1 and 2 would be 101,147 MT, as shown in Table 1.

Table 1
Units 1 & 2 Annual CO_2e Emissions

1,856,053.00	KSCF Natural Gas
1.026000	MMBtu/KSCF
1,904,310.38	MMBtu
53.06	kg CO_2/MMBtu
101,042,708.66	kg CO_2
0.001	kg CH_4/MMBtu
1,904.31	kg CH_4
25.00	CH_4 GWP
47,607.76	kg CH_4 CO2e
0.0001	kg N_2O/MMBtu
190.43	kg N_2O
298.00	N_2O GWP
56,748.45	kg N_2O CO2e
101,147,064.87	kg CO_2e
101,147.06	MT CO_2e

To provide a conservative basis to determine impacts related to GHG emissions, in the analysis presented below in Table 2, it is assumed that the proposed project would operate solely on natural gas, rather than a fuel mix of natural gas and hydrogen, which would result in lower GHG emissions. (The same assumption was used to determine the proposed project's impact relative to CO_2e lb/MWh in the Draft EIR.) Based on the baseline emissions of CO_2e from Units 1 and 2, the proposed project could operate at the following annual capacity factors per vendor and not exceed the CEQA threshold of significance of 10,000 MT per year increase in CO_2e emissions (Table 2).

Table 2
Proposed Project Annual Capacity Factor at 10,000 MT/yr Increase in GHG Emissions

Vendor	Baseline Annual CO_2e (MT)	30-yr Amortized Construction CO_2e (MT) [1]	Allowable Operational CO_2e Emissions (MT) [2]	Allowable Operational CO_2e Emissions (lb)	Vendor CO_2e Emissions Factor (lb/hr)	Annual Hours of Operation	Capacity Factor
Vendor A	101,147	6,657	104,490	230,360,887	299,309	770	8.79%
Vendor B	101,147	7,968	103,179	227,470,630	330,700	688	7.85%
Vendor C	101,147	3,223	107,924	237,931,552	275,787	863	9.85%

[1] Includes construction activities and generation unit commissioning.
[2] Includes 10,000 MT of CO_2e to account for CEQA significance threshold.

Furthermore, the proposed project could operate at the following annual capacity factors per vendor and not result in any increase in CO_2e emissions (Table 3).

Table 3
Proposed Project Annual Capacity Factor with No Increased GHG Emissions

Vendor	Baseline Annual CO_2e (MT) [1]	30-yr Amortized Construction CO_2e (MT) [2]	Allowable Operational CO_2e Emissions (MT)	Allowable Operational CO_2e Emissions (lb)	Vendor CO_2e Emissions Factor (lb/hr)	Annual Hours of Operation	Capacity Factor
Vendor A	101,147	6,657	94,490	208,314,687	299,309	696	7.95%
Vendor B	101,147	7,968	93,179	205,424,430	330,700	621	7.09%
Vendor C	101,147	3,223	97,924	215,885,352	275,787	783	8.94%

[1] Includes Units 1 and 2 baseline GHG emissions only.
[2] Includes construction activities and generation unit commissioning.

As discussed on page 3-10 of Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, when addressing the future use of in-basin generation units:

> Historically, these in-basin generation units, including Scattergood, have provided a substantial proportion of the City's energy on a daily and annual basis. However, based on the projected expansion of renewable resources in the LADWP system, the proposed project CCGS would be operated less frequently, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the dispatchable power generation provided by the proposed CCGS would be critical during stressed grid conditions that may be caused by low-probability, but high impact events when the renewable generation resources and/or transmission assets become unavailable due to emergency circumstances (e.g., the temporary loss of critical renewable energy transmission lines caused by wildfire or earthquake). Stressed grid conditions may also result from sustained periods of low renewable generation or transmission line maintenance and upgrades which can be exacerbated if they coincide with periods of high electricity demand.

Although the use of in-basin generation, including the proposed project, in the LADWP system would continue in order to maintain system reliability and resilience, the actual usage would be generally minimal and primarily for backup. As shown on Figure 1 below from the LADWP Draft LA100 Plan, under the base planning case which provides for 80% renewable resources by 2030, the capacity factor for combustion generation, whether using natural gas or hydrogen fuel, would be in the low single digits after 2030. Under the Senate Bill 100 case, which provides for 60% renewable resources by 2030 and which was used as a conservative assumption in the Draft EIR, this capacity factor would likely increase because of the lower availability of renewables. However, except under rare emergency circumstances requiring a more extended period of operation, the annual capacity factor for the proposed project is projected to remain below the capacity factors indicated in Tables 2 and 3, above, which reflect the baseline GHG emissions from Units 1 and 2. Therefore, in terms of MT/yr of CO_2e, impacts related to combined GHG emissions from proposed project construction and operations would remain less than significant, consistent with the conclusion in the Draft EIR.

Figure 1

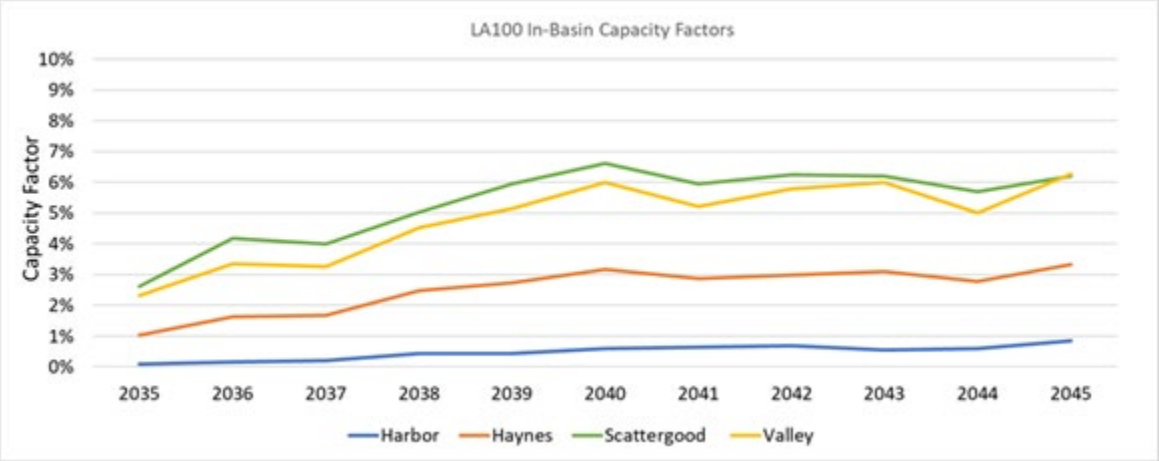

Figure 1. Projected capacity factors for LADWP's in-basin thermal plants under the LA100 Pathway reflecting their role as low-utilization, dispatchable resources for balancing the grid. Source: LADWP Draft LA100 Plan.

Therefore, no revisions to the Draft EIR are required.

Response to Comment No. A3-7

The commenter expresses concerns related to green hydrogen delivery. The commenter states that although the EIR states the supply of hydrogen would be analyzed in a separate CEQA environmental review, SCAQMD staff recommends that the Lead Agency include a worst-case scenario analysis of the different scenarios on how the green hydrogen can be delivered to the proposed project site, such as via delivery trucks or transfer via pipelines.

The commenter is referred to **Topical Response No. 2 – Hydrogen** for a detailed discussion of this topic. As discussed therein and in in Section 1.3.3 of the Chapter 1, Executive Summary, of the Draft EIR, the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how production would occur, and how it would be delivered to Scattergood. While truck delivery of hydrogen to Scattergood is unlikely given the requirements for hydrogen during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public.

Hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available. LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the proposed project. Nonetheless, because the combustion-

turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the impacts related to the combustion of such a fuel mixture in the CCGS are analyzed in this EIR.

Therefore, no revisions to the Draft EIR are required.

Response to Comment No. A3-8

The commenter notes that the proposed project will occur at a facility which is subject to SCAQMD Regulations and acknowledges that information pertaining to these regulatory requirements has been submitted separately with the permit applications. The commenter also asks for additional information about proposed gas compressors and/or pressure reducers for the project and recommends adding information regarding regulatory requirements that are applicable to the project to the EIR. Accordingly, as included in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR, the project's *Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis Report* has incorporated applicable AQMD rules and regulations in Appendix F of the report and provided further clarification of the new stationary and portable sources in Section 4.2 of the report.

Response to Comment No. A3-9

The commenter summarizes SCAQMD's role under CEQA as a Responsible Agency and reiterates that the analysis should be revised. The commenter is referred to **Response to Comment Nos. A3-2 through A3-8**. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. A3-10

The commenter states that LADWP's responses to SCAQMD comments should comply with CEQA Guidelines Section 15088(c) and that responses be provided at least 10 days prior to the certification of the Final EIR. LADWP acknowledges that this procedure/requirement will be followed. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Comment No. A4

City of El Segundo

Elected Officials

Drew Boyles, Mayor

Chris Pimentel, Mayor Pro Tem

Carol Pirsztuk, Councilmember

Lance Giroux, Councilmember

Ryan Baldino, Councilmember

Tracy Weaver, City Clerk

Matthew Robinson, City Treasurer

Appointed Officials

Darrell George, City Manager

Mark D. Hensley, City Attorney

Department Directors

Barbara Voss, Deputy City Manager

Paul Chung, Chief Financial Officer

Saul Rodriguez Police Chief

George Avery, Fire Chief

Jose Calderon, Information Technology

Aly Mancini, Recreation, Parks, and Library

Rebecca Redyk, Human Resources

Michael Allen, Community Development

Elias Sassoon, Public Works

November 26, 2024

Patrick Horton
Intergovernmental Affairs Representative
LADWP Legislative & Intergovernmental Affairs Office
111 N Hope Street
Los Angeles, California 90011

Via Email Transmission to Patrick.Horton@ladwp.com

Re: Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project

Mr. Horton and the Scattergood Modernization Team:

The Environmental Committee appreciates the time your team has spent with us in April 2023 and November 2024 presenting plans for the Scattergood Modernization Project. While the Committee respects and supports the efforts of the City of Los Angeles pursuing greener energy processes and products, as discussed in person, the Committee seeks to better understand the affects that this Project may have on our residents and businesses. To that end, the Committee looks forward to a tour of the facility and perhaps more importantly, answers to the following questions about its hydrogen resourcing: A4-1

1) Will hydrogen be produced and stored on site, or trucked in?

a) If trucks are to be used to deliver the fuel, will they be 100% hydrogen powered or otherwise fueled? Have the increased emissions from the delivery vehicles been included in the EIS to show carbon-neutral generation? What route will be used for the fuel delivery, and have traffic simulations been run? A4-2

b) If pipelines are the preferred method of fuel delivery, what percentage of hydrogen will be used?

c) If on-site hydrogen generation for fuel supply is pursued, what are the risks for air and other safety concerns?

350 Main Street, El Segundo, California 90245-3813
Phone (310) 524-2300

Without having read the DEIR in full yet, the Committee still has the following questions regarding facility design and construction in mind as asked in April 2023:

2) If a pipeline is to be built, what is the path of the pipeline to be used, and how long will construction of an adequate pipeline take? A4-3

3) What conditions may the residents of El Segundo be subjected to with the anticipation of 200 to 300 workers and construction equipment ranging between 40 to 60 construction vehicles? Please address in terms of carbon emissions, traffic delay, particulate matter, and noise pollution. A4-4

Without having read the DEIR in full yet, the Committee has the following new questions in mind:

4) If the air-cooled power generation process is no longer water-cooled, does it need to be located in this aging coastal Scattergood facility? A4-5

5) Based on emissions we have witnessed firsthand when the facility is not regularly operational, how can we be sure that it will be properly maintained in its new capacity? A4-6

6) Monitoring of hydrogen leaks in the facility will be of high importance. The Committee highly recommends design and installation of an air monitoring system for this facility in collaboration with AQMD. In particular, we would like to know: A4-7

a) Will monitoring be transparent along the lines of Rule 1180 fence line practice in place for Chevron and coming to Hyperion by 2027?

b) If not required or opting to work with AQMD, will the plant's daily monitoring be handled in-house or with a 3rd party contractor who maintains and distributes the data?

7) El Segundo is not serviced by LADWP even though the facility is located within the City, so what benefit does the community gain or how can potential negative impacts be mitigated by the project? A4-8 Is there an opportunity for funding or construction of onsite EV charging or Hydrogen filling stations? A4-9 Can a small percentage of the property be designated as parkland or protected El Segundo Blue butterfly habitat? A4-10

Since LADWP was unavailable to present to our City Council as originally proposed within the DEIR comment window, the Environmental Committee chair will make a presentation to City Council regarding this subject matter on Dec 3, 2024. Thank you in advance for addressing our concerns contained in this letter. The Environmental Committee appreciates LADWP's efforts to be good neighbors and keeping the community informed on all potential facility improvements. A4-11

Sincerely,

Elias Sassoon, Director
Public Works Department
City of El Segundo

C: Darrell George, City Manager

Members of the Environmental Committee

Comment No. A4

November 26, 2024
Elias Sassoon, Director of Public Works Department
City of El Segundo
350 Main Street, El Segundo, CA 90245-3813
(310) 524-2300

Response to Comment No. A4-1

In this introductory comment, the City of El Segundo expresses appreciation for LADWP's April 2023 and November 2024 presentations to the City about the project. The City expresses their interest in a tour of the Scattergood facility. The comment does not address the adequacy of the Draft EIR, and no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. A4-2

The commenter expresses concerns regarding hydrogen resourcing, including its production, storage, and transportation. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.3.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. Therefore, the Draft EIR does not address green hydrogen infrastructure needed to deliver green hydrogen to Scattergood because details of how and where the hydrogen would be manufactured and how it would be stored are entirely speculative at this time. Truck delivery of hydrogen to Scattergood is unlikely given the large volume of hydrogen that would be required during operation of the CCGS. Furthermore, any environmental impacts of transport via truck would depend on where it is produced, types of vehicles, and what truck routes would be used, which cannot be determined at this time. Conversely, transport via pipeline might require construction of that pipeline, and the environmental impacts would vary widely depending on the proposed location. The same is true as to storage of hydrogen. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public. Therefore, as stated in Section 3.3.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A4-3

The commenter states that the City's Environmental Committee has not reviewed the project's Draft EIR in its entirety. However, the commenter asks whether a pipeline will need to be constructed, where its path will be, and what will be the duration of construction. While it is unclear whether the commenter is referring to a pipeline for hydrogen delivery, as noted in **Topical Response No. 2 – Hydrogen,** and mentioned above, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist. Regarding other pipelines that will be constructed as part of the proposed project, as described in the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, a new wastewater pipeline from Scattergood to Hyperion Water Reclamation Plant (WRP) is proposed within Vista Del Mar, and the pipeline installation would require traffic lane closures on Vista Del

Mar during construction. A traffic control plan, as required by the LADOT, would be implemented and would include such measures as signage, flag persons, and lane detours as necessary to minimize disruptions to traffic. These disruptions would be temporary, and the roadway would be restored to pre-construction conditions after the pipeline installation is completed. As described in Chapter 3, Project Description of the Draft EIR, the installation of the wastewater pipeline to Hyperion WRP within Vista Del Mar would also be accomplished during the 29-month period in which the CCGS is constructed. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. A4-4

The commenter asks about the conditions that El Segundo's residents may be subjected to with the anticipation of 200 to 300 workers and construction equipment ranging between 40 to 60 construction vehicles. The commenter asks for this question to be addressed in terms of carbon emissions, traffic delay, particulate matter, and noise pollution. As described above, the commenter has noted that it has not yet reviewed the project's Draft EIR in its entirety. Accordingly, the commenter is referred to specific sections of the EIR that address these topics.

For analysis specific to emissions and particulate matter for both project construction, the commenter is referred to Section 4.2, Air Quality, and Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed in Section 4.2 of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. As described in Section 4.3 of the Draft EIR, the project's impacts on greenhouse gas (GHG) emissions were determined to be less than significant.

For analysis specific to noise associated with project construction and operations, the commenter is referred to Section 4.5, Noise, of the Draft EIR. As discussed therein, the surrounding residential receptors of the project site are located within the City of El Segundo. Noise impacts from the proposed project's construction activities were analyzed based on the El Segundo noise ordinance thresholds for construction and on the anticipated increase in the ambient noise level. El Segundo Municipal Code Section 7-2-10 establishes a construction noise threshold of 65 dBA L_{eq} for residential receptors. As shown in Table 4.5-6 of the Draft EIR, the switchyard upgrade activity would have the potential to create the highest noise levels during construction (approximately 62.8 dBA L_{eq}), which would not exceed the El Segundo Municipal Code 65 dBA L_{eq} construction noise threshold at receptor LT-1, where the existing daytime ambient noise level was measured at 58.5. Furthermore, noise generating construction activities would be limited to the timeframe specified in El Segundo Municipal Code Section 7-2-10 (between 7:00 a.m. and 6:00 p.m., Monday through Saturday). Therefore, construction-related noise levels would not exceed the standards established in the local noise ordinance. In addition, construction activities would not create a substantial temporary increase in ambient noise levels in the vicinity, which are generally considered noticeable once they increase by at least 5 dBA. As such, impacts related to construction noise would be less than significant.

For analysis specific to traffic, the commenter is referred to the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR. As described therein, with the exception of the installation of a new wastewater pipeline from Scattergood to Hyperion WRP within Vista Del Mar, all construction activities for the proposed project would occur within the boundaries of Scattergood. The pipeline installation would require traffic lane closures on Vista Del Mar during construction. A traffic control plan, as required by the City of Los

Angeles Department of Transportation (LADOT), would be implemented and would include such measures as signage, flag persons, and lane detours as necessary to minimize disruptions to traffic. These disruptions would be temporary, and the roadway would be restored to pre-construction conditions after the pipeline installation is completed. As such, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system; substantially increase hazards; or result in inadequate emergency access. In addition, a public liaison for the project would be available to address public concerns about construction activities. The comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. A4-5

The commenter restates that the City's Environmental Committee has not reviewed the project's Draft EIR in its entirety but asks:"[i]f the air-cooled power generation process is no longer water-cooled, does it need to be located in this aging coastal Scattergood facility?" The commenter is directed to Section 3.2.1 of the Draft EIR, which states that the implementation of the proposed project would have no bearing on the requirement to cease operation of the once-through cooling (OTC) system, which is separately required under the State Water Resources Control Board's policy on Coastal and Estuarine Waters for Power Plant Cooling, also referred to as the OTC Policy. In addition, the project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study (LA100 Study),[19] which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources, as detailed in Chapter 3, Project Description, of the Draft EIR. As described in Section 3.4, Project Objectives, of the Draft EIR, the objectives of the proposed project would be consistent with the broader aims of LADWP's future energy planning, development, and operations to maintain the reliability and resilience of the City's electrical power grid during and after the transition to a carbon-free system. Furthermore, as described in Section 3.4.3 of the Draft EIR, Scattergood has been identified as the most immediate and instrumental location in relation to the requirement for firm generation capacity due to the electrification of LAX, the implementation of increased wastewater treatment capabilities at Hyperion WRP, and anticipated growth in demand in the western areas of the City that Scattergood serves largely caused by electrification (i.e., the conversion of various functions currently powered by the combustion of fossil fuels, including cooking, space heating, water heating, and the transportation sector, to electricity). This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A4-6

The commenter states that emissions have been "witnessed firsthand when the facility is not regularly operational" and asks how the City can be sure that the facility will be properly maintained in its new capacity. As noted in Section 3.3.2 of the Draft EIR, all combustion units at Scattergood use selective catalytic reduction systems (SCR), a post-combustion control technology for reducing nitrogen oxide (NO_x) air pollutant emissions. Additionally, as described in Section 3.5.1.1 of the Draft EIR, the proposed CCGS would use a combination of processes to control air pollutant emissions, including dry burner technologies for the combustors in the combustion turbines and a SCR system to reduce the NO_x emissions and comply with SCAQMD requirements. The proposed CCGS would comply with all SCAQMD permit conditions as well as with federal, state, and local laws and regulations. The comment does not address the adequacy

[19] Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. Available at: https://maps.nrel.gov/la100/la100-study/report.

of the Draft EIR, and no further response is required. Nonetheless, this comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A4-7

The commenter expresses concern regarding hydrogen leak monitoring and recommends an air monitoring system in collaboration with SCAQMD. The commenter asks whether monitoring will be transparent along the lines of the Rule 1180 fence line practice, or if the plant's daily monitoring will be handled in-house or with a third-party contractor who maintains and distributes the data.

With regard to the commenter's concern about monitoring systems, the proposed CCGS would be subject to SCAQMD Rules 218 and 218.1, which specify the requirements for the installation, operation, certification, and quality assurance of a continuous emissions monitoring system (CEMS). These rules also include recordkeeping and reporting requirements. The NO_x emissions from the gas turbine operations will not only be continuously monitored by a CEMS but the data collected will also be submitted to SCAQMD to demonstrate compliance with these rules, as well as, the air permit emission limits and conditions. Additionally, SCAQMD requires that initial and periodic source testing to demonstrate compliance with the rules/regulations be performed by independent certified third-party contractors.

SCAQMD Rule 1180 only applies to petroleum refineries and related facilities. Facilities that are subject to SCAQMD Rule 1180 are listed in Tables 2 and 3 of the rule. Since the project is not a refinery or a related facility, it is not subject to SCAQMD Rule 1180 and is, therefore, not subject to the fence line monitoring requirement.

Furthermore, with regard to concerns about hydrogen leakage, as described in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, and **Topical Response No. 2 – Hydrogen** of the Final EIR, the project would comply with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4, to provide an adequate and safe hydrogen system that would, among various criteria, monitor for hydrogen leakage. As concluded in the Draft EIR, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The comment does not address the adequacy of the Draft EIR, and no further response is required. Nonetheless, this comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A4-8

The commenter states that El Segundo is not serviced by LADWP but notes that the facility is located within the City. The commenter asks how the City's community can benefit from the project or how potential negative impacts can be mitigated.

As described in Chapter 3, Project Description, of the Draft EIR, the City of El Segundo borders Scattergood on the northeast, east, and south. As also described therein, construction hours would be limited to hours consistent with the City of El Segundo Municipal Code regarding construction noise. In addition, a public liaison for the project would be available to address public concerns about construction activities. Furthermore, the proposed project would be operated within the existing boundaries of Scattergood in the City of Los Angeles. As discussed in the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, Scattergood is owned by LADWP and occupied by facilities devoted to the generation and transmission of electricity. No streets or sidewalks would be permanently

closed as a result of the proposed project, and no separation of uses or disruption of access between land use types would occur. The existing uses are consistent with the zoning and general plan designations, and the project would not result in land use or zoning changes or physically divide an established community, including the City of El Segundo located to the northeast, east, and south. The portion of the comment that questions benefits to the City of El Segundo's community does not address the adequacy of the Draft EIR, and no further response is required. Nonetheless, this comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Regarding the commenter's question on the mitigation of impacts, the commenter is referred to Chapter 4, Environmental Impact Analysis, of the Draft EIR, and Appendix A, Mitigation Monitoring and Reporting Program, of the Final EIR, which describe that impacts would be less than significant with mitigation for biological resources, geology and soils, hazards and hazardous materials, tribal cultural resources, and specific air quality impacts. As detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that impacts would be less than significant. As also detailed therein, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. However, it is important to note that these impacts are temporary and short in duration, and that operational impacts will be less-than-significant outside of the commissioning, startup, and shutdown. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A4-9

The commenter asks if there is an opportunity for funding or construction of onsite electric vehicle (EV) charging or hydrogen-filling stations. The project does not propose EV charging and hydrogen fueling stations, and the comment does not address the adequacy of the Draft EIR. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A4-10

The commenter asks if a small percentage of the property can be designated as parkland or protected El Segundo blue butterfly (ESB) habitat. This comment does not address the adequacy of the Draft EIR. Nonetheless, with regard to the protected ESB habitat, it should be noted no

suitable ESB habitat would be impacted by the proposed project. Specifically, as analyzed in the project's Initial Study (Appendix A of the Draft EIR), the El Segundo blue butterfly (*Euphilotes battoides allyni*) is a federally listed endangered butterfly that spends virtually its entire life cycle in intimate associations with the flower heads of the seacliff or coast buckwheat (*Eriogonum parviflorum*), which is found within and along the coastal dunes. Approximately 2 acres of the Chevron El Segundo Refinery, located adjacent to the southeast corner of the southern parcel of Scattergood, is designated as an ESB habitat preserve. As a known ESB population occurs within close proximity to Scattergood, an ESB habitat assessment was performed. It should be noted that the ESB is an obligate of its host plant seacliff buckwheat (*Eriogonum parviflorum*), which is a perennial shrub and detectable year-round. No seacliff buckwheat (i.e., ESB habitat) was observed at any location in the northern parcel of Scattergood. The southern parcel of Scattergood, located directly west of the Chevron El Segundo Refinery habitat preserve, consists of gravel-paved areas and soil stockpiles, and no coast buckwheat (i.e., ESB habitat) was observed there either. Additionally, ESB is known to be a poor disperser and to stay in close proximity to the host plant. As such, the project's Biological Resources Assessment demonstrated the absence of the host plant seacliff buckwheat within the survey area. Accordingly, the proposed project does not include a designation of parkland or protected ESB habitat. Nonetheless, as described in **Response to Comment No. A1-3**, incidental impacts to ESB can be avoided with implementation of CDFW's recommended mitigation measure, which requires two pre-project surveys to be conducted within one week prior to initiation of construction activities. This mitigation measure will be implemented for the project and is incorporated as Mitigation Measure MM-BIO-2 in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. A4-11

In this closing comment, the commenter states that since LADWP was unavailable to present to the El Segundo City Council as originally proposed within the Draft EIR comment window, the City's Environmental Committee chair will make a presentation to City Council. The comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Comment No. P1

Yes, my name is Alicia Rivera, and I am here with Communities for a Better Environment and appreciate this forum to take our comments. This project will cause additional impacts to environmental justice communities. Los Angeles is already in extreme nonattainment for critical pollutants, including ozone. NO_x emissions from hydrogen combustion lead to the creation of ozone and smog. These impacts will exacerbate already poor air quality and disproportionately impact the health of frontline communities living near the plant in the South Bay, where I'm a stakeholder. The environmental impacts of this project extend beyond the Scattergood gas plant as hydrogen will need to be made and transported to the facility. Additionally, LADWP is actively evaluating the transition of further in-basin gas plants to hydrogen, such as the one where I'm a stakeholder in Wilmington, which will expand the impacts of hydrogen combustion. Gas retirement is long overdue and transitioning to hydrogen is only building on our existing gas infrastructure, negatively impacting low-income communities of color, such as in Wilmington and vicinities. LADWP gas plants need to be retired. Thank you for your time and consideration of the many impacts of the Scattergood Modernization Project. I am against this project, and I hope it is rejected. Thank you very much.

P1-1

P1-2

Comment No. P1

November 20, 2024
Alicia Rivera
Communities for a Better Environment
alicia@cbecal.org

Response to Comment No. P1-1

The commenter expresses concerns regarding the project's air quality impacts and impacts to environmental justice communities. The commenter states that the project's impacts will exacerbate poor air quality and disproportionately impact the health of frontline communities living near Scattergood in the South Bay where the commenter is a stakeholder.

The commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, the CEQA statute does not include analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

As such, this comment does not identify any new or substantially new additional analysis or require additional or modified mitigation measures to the Draft EIR. No further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P1-2

The commenter expresses opposition to the project and shares concerns regarding the project and potential impacts related to hydrogen production, transport, and combustion. In addition, the commenter suggests that other in-basin gas plants may be transitioned to hydrogen and references a plant located in Wilmington, where the commenter is a stakeholder. The commenter asserts that such activities will result in continued reliance on existing gas infrastructure and negative impacts on low-income communities of color.

The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green

hydrogen infrastructure to Scattergood because the details related to the infrastructure needed to support the proposed project do not currently exist. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. In addition, it is assumed that the commenter is expressing concerns about Harbor Generating Station, which is a LADWP generating station located in Wilmington. However, this station is not included as part of the proposed project and any future project at Harbor Generating Station would be subject to environmental review specific to its site and future scope.

With regard to concerns related to low-income communities of color, the commenter is referred to Response to Comment No. P1-1 and **Topical Response No. 3 – Environmental Justice.**

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P2

Dr. Jim Stewart, a LADWP ratepayer, and I'm like with all the rest of the LADWP ratepayers. We're fed up with these kinds of expensive schemes. 800 million dollars. I understand you're going to get a hundred 1 million from ARCHES, but that still leaves 700 million dollars for us ratepayers to cover, and we are totally opposed to this. We don't understand how it's possible that batteries like cost around $400 a megawatt hour for that 800 million, you could get 2 gigawatt hours of it, and that's more than you need to replace this Scattergood plan. So obviously your EIR is faulty. And also you don't consider the analysis recently published by the Harvard Professors Shafiee and Schrag, showing that the cost of the CO_2 abatement by using hydrogen is over $1,200 per ton of CO_2. And that's way more than the current value of cap and trade around $40 a ton of CO_2. So you guys are way out of the ballpark. And I also want to support Alicia's comments about the fact that this is ridiculous that you don't show the NO_x from the hydrogen production, which is far more than the NO_x that's produced by methane natural gas. And so you clearly have to revise this EIR. Thank you.

P2-1

P2-2

Comment No. P2

November 20, 2024
Jim Stewart
drjimstewart@gmail.com

Response to Comment No. P2-1

The commenter expresses concern for the financial cost of the project and claims that batteries would be a cost-effective replacement of the project. The commenter is referred to **Topical Response No. 4 – Alternatives** and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, which provided an extensive assessment of alternatives as required by CEQA. As detailed therein, a grid-scale battery energy (BESS) alternative was evaluated under Alternative 2 of the Draft EIR. While technically feasible, the BESS alternative would not provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. During periods of extreme peak demand, batteries would need to be recharged largely from in-basin generation during overnight time periods (likely from combustion generation sources), which may reduce the lifespan of certain electrical equipment, especially during heatwaves. Typically, reduced overnight loads allow transformers and other equipment to cool, and additional loading from storage charging would reduce cooling opportunities, potentially increasing failure rates and requiring accelerated equipment replacement and associated costs. Therefore, while it may be effective to meet daily peaks in demand that exceed available renewable generation resources, it would not provide adequate energy to maintain system reliability during longer-duration interruptions in the generation and/or transmission system caused by emergency circumstances. Furthermore, energy storage throughout the LADWP service area is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan), and LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions.

The commenter also cites a Harvard University publication that suggests the cost of CO_2 abatement via hydrogen use is greater than abatement via cap-and-trade. However, as stated in Section 2.0, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

Therefore, the commenter's concerns do not address the adequacy of the Draft EIR or identify any information that meets any of the criteria for revisions to or recirculation of the Draft EIR. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P2-2

The commenter expresses concern that the Draft EIR did not assess the NO_x emissions resulting from hydrogen production and suggests the omission warrants revisions to the Draft EIR. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. The green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. Therefore, no revisions are required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P3

Hello, my name is Roselyn Tovar, and I'm a DWP ratepayer. I'm here today on behalf of Communities for a Better Environment and to raise concerns about Scattergood and the environmental impact report. As energy researcher at CBE. I've worked directly with frontline communities facing the health impacts of our dirty gas industry. However, hydrogen combustion and blending with methane is not the answer. Hydrogen generates 3 to 5 times as much NO_x as gas, and this project will only prolong the use of gas for an undisclosed period. As the future of hydrogen remains uncertain, due to technological limitations and its high cost, the draft EIR is in misalignment with concurrent processes, like the SLTRP and the NREL alternative studies. We need the draft EIR to be directly informed by the NREL alternative studies, and Scattergood should not move forward before a full evaluation of alternatives has been conducted. The draft EIR fails to fairly evaluate alternatives. The project proposal uses a 30-year timeline which favors combustion technology over other solutions like energy storage, and the draft EIR evaluates for our lithium ion batteries, but should also evaluate other non-emitting long duration energy storage technology with longer battery, lifespan and charging capacity. And the project scope evaluated in the Draft EIR is much smaller than the actual impacts of hydrogen infrastructure. Buildout Unit 1 and 2 are mandated to be retired in 2029, and the Draft EIR does not properly incorporate the retirement into the assessment. Thank you for your time, and I urge you to reject this Draft EIR and prioritize community and climate health over combustion.

P3-1

P3-2

Comment No. P3

November 20, 2024
Roselyn Tovar
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Response to Comment No. P3-1

The commenter expresses opposition to the gas industry, use of natural gas and hydrogen fuel mixtures, and concerns about NO_x emissions. As detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The commenter is also concerned that the project will prolong the use of gas for an undisclosed period and that the Draft EIR fails to fairly evaluate alternatives (e.g., energy storage technology with longer battery lifespan and charging capacity). The commenter states that the Draft EIR should be informed by alternatives' studies by the National Renewable Energy Laboratory and Strategic Long-Term Resource Plan. The commenter is referred to **Topical Response No. 4 – Alternatives** and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR. As detailed therein, a variety of alternatives to the project, such as battery storage and alternative in-basin clean energy generation, were considered but dismissed due to infeasibility, failure to meet the project objectives, and/or inability to avoid or lessen significant environmental impacts. In addition, as described in Chapter 3, Project Description, of the Draft EIR, the proposed project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy (LA100) Study, which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources. The LA100 Study, the final report for which was published in 2021, was a multi-year effort undertaken jointly by the National Renewable Energy Laboratory and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Across all scenarios, the requirement for firm local generation assets (i.e., located within the Los Angeles Basin) that can be readily dispatched in a controlled manner in response to demand was

recognized as essential under a range of foreseeable but unpredictable circumstances that could temporarily limit the supply of renewable energy resources coming into the City. Under such circumstances, firm (i.e., dependable) local generation would be critical to maintaining system resilience and reliability and reducing the risk of power grid collapse.

Response to Comment No. P3-2

The commenter expresses opposition to the project and states that the Draft EIR did not properly account for the mandated retirement of Units 1 and 2 in the project's analyses. The commenter is referred to **Topical Response No. 5 – Project Baseline Environmental Conditions**. As described therein, a future condition in which Scattergood Units 1 and 2 are no longer operating and the proposed project has not been approved is not a reasonably foreseeable future baseline condition. Based on the imperative nature of power generation from Scattergood to prevent the disruption of the electrical grid in Los Angeles (see **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** regarding Scattergood generation and grid reliability), the shutdown of Units 1 and 2 is predicated not only on the cessation of use of the OTC system but also on the implementation of the proposed project to provide critical generation capacity at Scattergood. Absent the proposed project, the necessity to maintain as much generation capacity at Scattergood as possible would likely require a solution that would enable the continued operations of Units 1 and 2, whether through appeals to further extend the OTC deadline or through the implementation of alternative cooling technologies for the units. Therefore, the Draft EIR provides an adequate analysis with regard to baseline and Units 1 and 2, and no further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P4

Hello, my name is Olga Mandrussow, and I thank you for this opportunity to provide comments. I fully support the comments made by Alicia Rivera, Jim Stewart and Roselyn Tovar. Those were great comments. My concern is expense. As you know, utility expenses are disproportionately high for low-income households. I believe that a grid scale battery energy system provides better value and reliability for ratepayers and for LADWP. I disagree with your statement that renewables and energy storage alone cannot achieve full decarbonization of a reliable electric grid. I don't think that's true, especially with technology, that technology is moving so fast and things are improving constantly. I think that that statement is not true, and also your alternative too, again, I think that alternative ignores the fact that in the next few years technology will advance and grid-scale battery storage systems will be able to fit in the Scattergood site and will help achieve peak demand. Thank you. P4-1

Comment No. P4

November 20, 2024
Olga Mandrussow
mandrussow@gmail.com

Response to Comment No. P4-1

The commenter expresses concerns about utility expenses for low-income households and suggests that a grid scale battery energy system would provide better value and reliability for ratepayers and for LADWP. The commenter disagrees with the notion that renewables and energy storage alone cannot achieve full decarbonization of a reliable electric grid and believes that future technology will allow grid-scale battery storage systems to fit in the Scattergood site and achieve peak demand. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, various alternatives to the project were considered, including a grid-scale battery energy storage system (BESS). Though technically feasible, implementation of a grid-scale BESS to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS and would require substantially more real estate. During periods of extreme peak demand, batteries would need to be recharged largely from in-basin generation during overnight time periods (likely from combustion generation sources), which may reduce the lifespan of certain electrical equipment, especially during heatwaves. Typically, reduced overnight loads allow transformers and other equipment to cool, and additional loading from storage charging would reduce cooling opportunities, potentially increasing failure rates and requiring accelerated equipment replacement and associated costs. Therefore, while it may be effective to meet daily peaks in demand that exceed available renewable generation resources, it would not provide adequate energy to maintain system reliability during longer-duration interruptions in the generation and/or transmission system caused by emergency circumstances. Furthermore, energy storage is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. Therefore, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P5

Hi, my name is Laura Gracia. I'm with Communities for a Better Environment. Yeah, my family and I are all LADWP customers. My mom has benefited from the easy save program and the refrigerator exchange program. I'm deeply concerned about LADWP's Scattergood project and the plan to retrofit the power plant to burn hydrogen. You know, there are options that were shared during today's presentation that feels like they're not being taken seriously because this DEIR is happening before the SLTRP Advisory group even gets a chance to really delve into the No Combustion scenario in this strategic long term resource plan. So I am hoping that we delay this. I'm also opposed to the hydrogen project. I really do think that there is an opportunity for local in-basin clean energy production. We work closely with community members around resilience hubs, and there is a lot of excitement and interest in local clean energy and local battery storage. Additionally, this project is going to cause additional impacts to environmental justice communities. Not only am I a stakeholder in Wilmington, my brother and my niece live near the Valley Generating Station. They complain constantly about how you know they're a bad neighbor, and the environmental impacts of the project for Scattergood extend beyond that plan as hydrogen is going to need to be made and transported to the facility. Additionally, LADWP is actively evaluating the transition of other in-basin gas plants to hydrogen, which will expand the impacts of hydrogen combustion. Overall, you know, thank you for your time. We really hope that you reject this Draft EIR and you prioritize community and climate health and over another risky combustion technology. Thank you.

P5-1

P5-2

Comment No. P5

November 20, 2024
Laura Gracia
Communities for a Better Environment
Laura@cbecal.org

Response to Comment No. P5-1

The commenter expresses opposition to the project and the use of hydrogen. The commenter is also concerned that there is insufficient consideration of alternatives (e.g., local in-basin clean energy production) and that the LADWP Power Strategic Long-Term Resource Plan (SLTRP) advisory group has not fully evaluated the No Combustion scenario in the SLTRP. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, a variety of alternatives to the project, including alternative in-basin clean energy generation, were considered but dismissed due to infeasibility, failure to meet the project objectives, and/or inability to avoid or lessen significant environmental impacts.

Response to Comment No. P5-2

The commenter expresses concerns that the production and transport of hydrogen and LADWP's potential transition of other in-basin gas plants to hydrogen will cause environmental impacts of the project to extend beyond the project site. The commenter claims that this project will result in impacts to environmental justice communities and refers to their location in Wilmington and their family's proximity to and negative experiences with LADWP's Valley Generating Station.

With regard to the hydrogen concern, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. It is assumed that the commenter is expressing concerns about Harbor Generating Station located in Wilmington and Valley Generating Station located in Sun Valley. However, these two LADWP facilities are not included as part of the proposed project. The development of hydrogen fueled generating units at other LADWP in-basin generating stations is speculative at this point, and there is not sufficient information available to support an adequate analysis of potential impacts. Therefore, they are not included as part of the cumulative analysis for the Draft EIR. Any future projects at Harbor Generating Station or Valley Generating Station would be subject to environmental review specific to their respective sites and future scopes.

The commenter is also referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, the CEQA statute does not include analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments

(HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

As such, this comment does not identify any new or substantially new additional analysis or require additional or modified mitigation measures to the Draft EIR. No further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P6

Hi, my name is Theo Caretto. I'm here today on behalf of Communities for a Better Environment. Thanks for the opportunity to comment on the EIR. I work in the city of LA, and I was an LADWP customer for several years. The Scattergood Units 1 and 2 are slated to be retired in 2029, and, in my opinion, the DEIR doesn't properly incorporate this retirement into their baseline set into its baseline assessment. And in addition to that, this project will cause additional impacts to environmental justice communities. Gas retirement is long overdue, and transitioning to hydrogen is only building on our existing gas infrastructure that's historically negatively impacted low-income communities of color in the city of LA. The longer LADWP relies on gas combustion, the longer these risks will be forced onto environmental justice communities. I'm disappointed and concerned that LADWP has not chosen to more seriously pursue battery alternatives in the LA basin which can provide cost savings at utility scale in addition to reducing local air pollution and climate pollution which have non energy benefits. I oppose the combustion of hydrogen for electricity and think that this project is a serious mistake. Thank you.

P6-1

P6-2

P6-3

Comment No. P6

November 20, 2024
Theo Caretto
Communities for a Better Environment
theodore@cbecal.org

Response to Comment No. P6-1

The commenter states that the Draft EIR did not properly account for the mandated retirement of Units 1 and 2 in the project's analyses. The commenter is referred to **Topical Response No. 5 – Project Baseline Environmental Conditions**. As described therein, a future condition in which Scattergood Units 1 and 2 are no longer operating and the proposed project has not been approved is not a reasonably foreseeable future baseline condition. Based on the imperative nature of power generation from Scattergood to prevent the disruption of the electrical grid in Los Angeles (see **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** regarding Scattergood generation and grid reliability), the shutdown of Units 1 and 2 is predicated not only on the cessation of use of the OTC system but also on the implementation of the proposed project to provide critical generation capacity at Scattergood. Absent the proposed project, the necessity to maintain as much generation capacity at Scattergood as possible would likely require a solution that would enable the continued operations of Units 1 and 2, whether through appeals to further extend the OTC deadline or through the implementation of alternative cooling technologies for the units. Therefore, the Draft EIR provides an adequate analysis with regard to baseline and Units 1 and 2, and no further response is required.

Response to Comment No. P6-2

The commenter claims that the project would cause additional impacts to environmental justice communities and that the transition to hydrogen will continue reliance on gas infrastructure, which has negatively impacted low-income communities of color in the City of Los Angeles. The commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, the CEQA statute does not include analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12 (e)). In addition, the surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. As such, this comment does not identify any new or substantially new additional analysis or require additional or modified mitigation measures to the Draft EIR. No further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P6-3

The commenter expresses opposition to the project and states that LADWP has not seriously pursued battery alternatives, which may provide utility cost savings and reduce pollution. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, various alternatives to the project were considered, including a grid-scale battery energy storage system (BESS). Though technically feasible, implementation of a grid-scale BESS to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS and would require substantially more real estate. During periods of extreme peak demand, batteries would need to be recharged largely from in-basin generation during overnight time periods (likely from combustion generation sources), which may reduce the lifespan of certain electrical equipment, especially during heatwaves. Typically, reduced overnight loads allow transformers and other equipment to cool, and additional loading from storage charging would reduce cooling opportunities, potentially increasing failure rates and requiring accelerated equipment replacement and associated costs. Therefore, while it may be effective to meet daily peaks in demand that exceed available renewable generation resources, it would not provide adequate energy to maintain system reliability during longer-duration interruptions in the generation and/or transmission system caused by emergency circumstances. Furthermore, energy storage is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. Therefore, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P7

Hi, Janessa Kurland. I am a resident in the City of LA in Marina del Rey for two decades, and I don't believe this has been properly researched. I concur that the study is based on maybe not archaic today, but archaic tomorrow data,that has been skewed by the people who want it to go forward. I believe that the methane and gas needed for this process, we should look to where that's coming from, which is probably SoCal Edison, and anything you know, we need to look around the whole area. How is this affecting the underground methane situation that we already have? And the storage of methane in the wetlands needs to be looked at more comprehensively. And thank you very much for taking our comments, and we actually do hope they're taken into consideration and this is not just a public comment for show where decisions have already been made, people have already been paid, and deep pockets keep on to make money. Thank you very much. P7-1

Comment No. P7

November 20, 2024
Janessa Kurland
jjsk7@hotmail.com

Response to Comment No. P7-1

The commenter alleges that the project has not been properly researched and may be based on data skewed by biased parties. However, the commenter does not provide evidence to support these claims and does not specifically address the adequacy of the Draft EIR. The commenter also references the underground storage of methane in wetlands. However, this is not proposed by the project or stated in the Draft EIR. SoCalGas, a natural gas distribution utility, is a separate entity from LADWP, which is a municipal water and power utility and the lead agency for the proposed project. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Additionally, no impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands which is located approximately 3 miles north of the Scattergood property. Accordingly, no further response is required.

Comment No. P8

Hi, I'm Heena Singh, and I'm the Energy Justice Manager at the California Environmental Justice Alliance, CEJA or se-ha. I've lived in LA for the last 5 years, and really want to see a future where everyone in our community and our county has access to clean air and clean energy. Today, I'm also representing our Regenerate California campaign which reimagines a future where gas plants across California are retired by 2035, and those in environmental justice communities are retired by 2030. I am deeply concerned about LADWP's plan to retrofit the Scattergood power plant to burn hydrogen for many reasons. If this project is carried out, it will only burn up to 30% hydrogen and 70% methane. This project is slated to cost 800 million dollars, and it doesn't even include future retrofits needed to burn 100% hydrogen. The cost of hydrogen fuel itself or the hydrogen production and transportation infrastructure. Furthermore, we know that hydrogen combustion results in NO_x emissions, which lead to the creation of ozone and smog. So for a project where the EIR has guaranteed significant and unavoidable impacts to air quality in Los Angeles, a city which has just recently been moved from a severe to extreme nonattainment designation for ozone, this is too high a price to pay. These impacts will exacerbate already poor air quality and disproportionately impact the health of frontline communities. Gas retirement is long overdue and transitioning to hydrogen is only perpetuating our existing gas infrastructure that has historically harmed communities of color and low income communities. It's clear that this Draft EIR is not comprehensive and at times it's misleading and has incomplete analysis. We ask that LADWP disclose all pending or active permits and contracts with relevant agencies required for project completion and expand the analysis. This project will set a precedent for gas plants across California. We request that LADWP reject this EIR and be a champion for EJ communities and a leader for utilities across the State. Thank you.

P8-1

P8-2

P8-3

Comment No. P8

November 20, 2024
Heena Singh
California Environmental Justice Alliance
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Response to Comment No. P8-1

The commenter expresses concern that implementation of the proposed project will result in use of only up to 30 percent hydrogen and 70 percent methane while the project cost is already high. The commenter is also concerned about the costs of future retrofits, hydrogen fuel, and hydrogen production and transportation infrastructure. With regard to the commenter's concerns regarding cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. Furthermore, with regard to hydrogen fuel, production, and transportation, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.3.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. As stated in Section 3.3.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

Response to Comment No. P8-2

The commenter expresses concern that the project will prolong reliance on the gas industry and result in NO_x emissions, which will lead to the creation of ozone and smog. The commenter states that the project's significant and unavoidable air quality impacts are too high a price for Los Angeles, which the commenter states has just recently been moved from a severe to extreme nonattainment designation for ozone. With regard to air quality impacts during construction, as detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable

impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The commenter states that the project's air quality impacts would disproportionately affect the health of historically harmed frontline communities. The commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenters are also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. As such, this comment does not identify any new or substantially new additional analysis or require additional or modified mitigation measures to the EIR. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P8-3

The commenter requests that the EIR be rejected and claims that the Draft EIR is not comprehensive, is misleading, and has incomplete analysis. The commenter asks that LADWP disclose all pending or active permits and contracts with relevant agencies required for project completion and expand the analysis. The commenter is referred to Section 3.6 of the Draft EIR, which provides a list of approvals and permits that would be required to implement the proposed project. However, the commenter does not provide evidence to support these claims and does not specifically address the adequacy of the Draft EIR. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P9

Good evening. My name is Andrea León-Grossmann. I'm a ratepayer, the deputy program director for the West, with Vote Solar, a co-author of 2 books on energy, and I also live within a 5-mile blast evacuation zone for Scattergood. I am deeply concerned about LADWP's plans to retrofit Scattergood Generation Station to burn hydrogen. LADWP needs to reject this Draft EIR of Scattergood, and they need to really take a step forward and look at alternatives like virtual power plants which other municipalities have done successfully, like SMUD in Sacramento. Hydrogen retrofits are risky and expensive. Let me remind you of the 2018 CCST Report that labeled the Playa del Rey Gas Storage Facility as the most dangerous in California. This is the same infrastructure that you're leaning on to push forward hydrogen combustion, a process riddled with inefficiencies, NO_x emissions, and enormous safety concerns for people like me who live in harm's way. Let's not forget the track record of SoCal Gas. They charge ratepayers for political fights against climate measures while prioritizing investor profits over public safety. Their 2021 report on underground oil and gas sites in Los Angeles is so heavily redacted that all locations considered were hidden. It proves transparency and accountability are not in their priorities. Why is LADWP following their lead? Instead of making excuses for the fossil fuel industry, my utility needs to prioritize ratepayers—our safety, health, and financial well-being. As someone who lives in this community, I am calling on you to stop putting your thumb on the scale for SoCal Gas investors. The people of Los Angeles deserve better. It's time for LADWP to shift course, invest in clean, reliable energy solutions that truly put us the ratepayers first. Our health and safety depend on it. Thank you.

P9-1

P9-2

Comment No. P9

November 20, 2024
Andrea León-Grossmann
Vote Solar, West
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Response to Comment No. P9-1

The commenter expresses opposition to the project's proposed use of hydrogen and calls for rejection of the EIR. The commenter claims that the project's infrastructure to support hydrogen combustion is the same as that implemented in the Playa del Rey Gas Storage Facility, citing a "2018 CCST Report that labeled the Playa del Rey Gas Storage Facility as the most dangerous in California." It is assumed that the commenter is referencing a report by the California Council on Science and Technology. However, the report does not provide evidence of the commenter's claims. Nonetheless, with regard to the commenter's concerns about safety and their location within a "5-mile blast evacuation zone" for Scattergood, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

With regard to the commenter's concerns about NO_x emissions, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR. As detailed therein, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable, but would only be temporary. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

The commenter also states that LADWP should consider alternatives such as virtual power plants (VPPs). A VPP is a system of distributed energy resources (e.g., rooftop solar panels, electric vehicle chargers, and smart water heaters) that work together to balance energy supply and demand on a large scale. The commenter is referred to **Response to Comment No. P93-13** for a detailed response regarding VPPs. As discussed therein, in summary, LADWP supports expanding VPP and distributed energy resources capabilities as complementary, emission-reducing resources, but current evidence does not support treating them as a technically equivalent or fully deliverable substitute for firm in-basin generation needed to maintain reliability

under California Independent System Operator (CAISO), North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) criteria. LADWP finds that VPPs, long duration energy storage technologies, and demand side management programs are strategic complements that enhance flexibility, lower emissions, and support customer participation. At present, these resources do not provide the firm, location-specific capacity required to ensure N-1 reliability within the Westside.

Additionally, the commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.5.1 of the Draft EIR, alternative in-basin clean energy generation, including multiple solar photovoltaic programs to generate carbon-free, renewable energy for its power grid, is a part of LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and is already being implemented by LADWP. Though local distributed renewable generation can be rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. As mentioned above, distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P9-2

The commenter states that SoCalGas prioritizes profits over safety and transparency and that LADWP is catering to SoCalGas investors over ratepayers' health and safety. However, the commenter does not specifically address the adequacy of the Draft EIR. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P10

My name is Jane Velez-Mitchell. I'm a journalist and author, and I live near the Ballona Wetlands Ecological Reserve, and everybody on the westside is against this scattershot. That's what it should be called, or scatterbad. This is obviously another cynical, morally bankrupt scheme to help SoCal Gas , which supplies the methane, and to further SoCal Gas' phony restoration that would bulldoze and destroy the Ballona wetlands over a decade, wiping out 1,700 species, including threatened and endangered species. This boondoggle, the Scattergood boondoggle is connected to that boondoggle, the phony restoration. All these gas oil and fossil fuel and methane facilities need to be shut down. This is antiquated, inefficient technology that needs to go. The LA City Council itself voted unanimously to close the SoCalGas facility under the wetlands. This scatterbad project would devastate the wildlife, and of course they say, "Oh, it won't," but it will. Biologists and environmentalists have documented that this will be devastating. Respectfully, you do not work for the gas company, you work for us, the people, and the people do not want this. Shut it down. Alternative one. No, thank you.

P10-1

Comment No. P10

November 20, 2024
Jane Velez-Mitchell
janevelezmitchell@yahoo.com

Response to Comment No. P10-1

The commenter expresses opposition to the project and suggests that the project is a scheme to further SoCalGas' methane industry and its negative impacts on the Ballona Wetlands and species. The commenter also claims the project would devastate the wetlands' wildlife. However, the commenter does not provide evidence to support these assertions and does not specifically address the adequacy of the Draft EIR. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities.

In addition, the commenter is referred to the Initial Study for the project (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR. As discussed therein, a Biological Resources Assessment was prepared for the proposed project, which determined the potential for special-status species to occur on or within the general vicinity of Scattergood. The assessment found that based on a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, only the El Segundo blue butterfly is expected to occur in the study area. However, based on the results of the conducted field survey, no suitable habitat for the El Segundo blue butterfly was observed that would be impacted by the proposed project footprint. Nonetheless, as detailed in **Response to Comment No. A1-3**, incidental impacts to ESB can be avoided with implementation of CDFW's recommended mitigation measure, which requires two pre-project surveys to be conducted within one week prior to initiation of construction activities. This mitigation measure will be implemented for the project and is incorporated as Mitigation Measure MM-BIO-2 in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR. With regard to birds, as described in Chapter 4, Environmental Impact Analysis, of the Draft EIR, although suitable nesting habitat for various year-round and seasonal bird species occur within the survey area, no active nests or birds displaying overt nesting behavior were observed during the field survey of Scattergood. Nonetheless, because indirect impacts to nesting birds could occur, nesting bird surveys and protocol would be conducted during project construction pursuant to Mitigation Measure MM-BIO-1 to ensure indirect impacts to nesting birds would be less than significant.

Moreover, no impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands which are located approximately 3 miles northwest of the project site.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Comment No. P11

My name is Dorothy Reik, and I'm a member of the LA County Democratic party, and I am also on the Executive board of the California Democratic party, and we have been trying forever to shut down, you know, to save the Ballona wetlands, and every time we think we've got saved, there comes another diabolical scheme to destroy it, and this is just another one of them. They want to dig up the wetlands, store methane and hydrogen. When I think hydrogen, I think Hindenburg and those of us who are older will remember when the blimp exploded, killing everybody on board. We need to keep hydrogen away from residential areas. We need to go to solar. We need to go to renewable energy. Importing methane by a pipeline from outside of the State, to poison our state is wrong. I'm not a scientist. A lot of these other people have a lot more knowledge than me. But I have common sense, as they do, too. And we all understand this is a very bad project. It's going to hurt people. It's going to hurt animals. It's going to, and we destroy our wetlands at our peril. You see what's happening in Florida. It could happen here. Global warming means that we can have storm surges here in California just like they have back east. So please, say no to this diabolical, terrible project. Thank you. P11-1

Comment No. P11

November 20, 2024
Dorothy Reik
California Democratic Party
dorothyreik@pdsmm.org

Response to Comment No. P11-1

The commenter expresses opposition to the project and states that the project is a scheme to dig up and destroy the Ballona Wetlands to store methane and hydrogen. The commenter lists several concerns (such as the Hindenburg blimp, storms, and global warming) and states that importing methane by pipeline from out-of-state would poison the state. However, the project does not propose that methane and hydrogen would be stored in the Ballona Wetlands or that methane would be imported by pipeline from out-of-state. The commenter does not provide project-specific context or evidence to support these claims and does not specifically address the adequacy of the Draft EIR. No impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands which are located approximately 3 miles northwest of the project site. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Accordingly, no further response is required on this issue.

The commenter also states that hydrogen needs to be kept away from residential areas and states that the proposed project will hurt people and animals. The commenter does not provide project-specific context or evidence to support these claims and does not specifically address the adequacy of the Draft EIR. Nonetheless, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. With regard to the commenter's concern about impacts to animals, the commenter is referred to the biological resources discussion in **Response to Comment No. P10-1**, above.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Comment No. P12

My name is Julia Dowell, and I'm a senior campaign organizer with Sierra Club. Thank you for the opportunity to speak. First and foremost, I feel that the process surrounding the DEIR is lacking in a couple of ways. We are still waiting to see the results from the NREL hydrogen alternatives study, and these results should be publicly available prior to consideration of in-basin hydrogen combustion. The current process gives the appearance that LADWP has already decided to move forward with hydrogen combustion before properly evaluating alternatives. One of our main concerns with hydrogen combustion is the air quality impacts: burning hydrogen leads to NO_x emissions, and NO_x emissions create ozone and trigger respiratory and cardiovascular illness. LA is quite literally the worst place in the country to add more NO_x pollution given that LA was recently upgraded from severe to extreme status for non-attainment for ozone. Alternative 2 evaluates the feasibility of a battery storage system. This alternative is stated to have reduced environmental impacts but is said not to meet all the project objectives. However, this alternative primarily looks only at 4-hour lithium ion batteries. The DEIR should evaluate other non-emitting long duration, energy storage technology with a longer battery lifespan and charging capacity that would decrease acreage needed for the project and would help with reliability and resiliency. The project scope evaluated for the DEIR is much smaller than the actual impacts of hydrogen infrastructure buildout, and LADWP has plans to burn hydrogen in its other 3 power plants, so those cumulative impacts should be evaluated before Scattergood moves forward. I think it's important to note that hydrogen combustion at this scale has never been done before, and LADWP wants to invest millions into a new and risky technology. I hope that you will take these comments into account and listen to the communities you serve. Thank you.

P12-1

P12-2

P12-3

P12-4

Comment No. P12

November 20, 2024
Julia Dowell
Sierra Club
julia.dowell@sierraclub.org

Response to Comment No. P12-1

The commenter expresses concern regarding the Draft EIR's process and the perception that LADWP has already decided to move forward with hydrogen combustion prior to availability of the National Renewable Energy Laboratory (NREL) alternatives' study. While the NREL study was not available as of November 20, 2024, when this verbal comment was made during the virtual public meeting, the Draft EIR's public review period, which began on October 31, 2024, was extended five times, which allowed the public to review the NREL study released on March 4, 2025. The public review period ultimately lasted 159 days and closed on April 7, 2025, more than a month after the NREL study's release.

Response to Comment No. P12-2

The commenter expresses concerns regarding air quality and health impacts related to NO_x and also refers to the City's non-attainment status for ozone. As detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that impacts would be less than significant. As also assessed therein, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

Response to Comment No. P12-3

The commenter states that Alternative 2 in the Draft EIR included evaluation of 4-hour lithium ion batteries. The commenter states that the Draft EIR should have evaluated "other non-emitting long duration, energy storage technology with a longer battery lifespan and charging capacity that would decrease acreage needed for the project and would help with reliability and resiliency." The commenter is referred to **Topical Response No. 4 – Alternatives.** As detailed therein, the NREL Alternatives Report states that, though non-lithium based battery types have the potential to be competitive when deployed at scale for longer-duration applications, the technologies are all in the early demonstration phase without multi-megawatt (MW) installations and multiple years of commercial operation, or without multiple vendors representing a robust supply chain. The report also noted that the total installed capacity of all non-lithium batteries since 2020 is approximately

24 MW which is substantially lower than the generation capacity of the proposed project. In other words, this technology is not sufficiently well-established to ensure that LADWP can achieve its project objectives with regard to stability and reliability.

Response to Comment No. P12-4

The commenter states that the Draft EIR's analysis of cumulative impacts related to hydrogen infrastructure buildout is inaccurate, citing claims that LADWP has plans to burn hydrogen in three other power plants. However, as discussed in **Topical Response No. 2 – Hydrogen**, the development of hydrogen fueled generating units at other LADWP in-basin generating stations is speculative at this point, and there is not sufficient information available to support an adequate analysis of potential impacts. Therefore, they are not included as part of the cumulative analysis for the Draft EIR. Any future projects at Harbor Generating Station, Haynes Generating Station, or Valley Generating Station would be subject to environmental review specific to their respective sites and future scopes. Furthermore, the commenter provides no evidence to support their claim that LADWP is proposing to implement hydrogen infrastructure at the other plants. As such, the commenter's concerns do not address the adequacy of the Draft EIR or identify any information that meets any of the criteria for revisions to or recirculation of the Draft EIR.

In addition, the commenter states that hydrogen combustion at this scale has never been implemented and suggests that LADWP wants to invest millions into a new and risky technology. The U.S. Energy Information Administration reports that natural gas power plant operators across the U.S. are upgrading existing turbines to use a blend of natural gas and hydrogen, testing fuel blends at existing power plants, and constructing new combined cycle generating systems ranging from 74 MW up to 1,158 MW.[20] Nonetheless, the commenter does not provide project-specific context or evidence to support these claims and does not specifically address the adequacy of the Draft EIR. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

[20] U.S. Energy Information Administration. 2024. In-Brief Analysis: U.S. electric power sector explores hydrogen cofiring at natural gas-fired plants. Available at: https://www.eia.gov/todayinenergy/detail.php?id=63084#:~:text=Power%20plants%20under%20construction,cofire%20up%20to%2030%25%20hydrogen. Accessed September 2025.

Comment No. P13

Hello, I am a DWP customer, and I also live in Venice, California, which is close to the Ballona Wetlands. and not far from Scattergood. I am very much against this project. I think that this project was supposed to, you know, be pro-environment is exactly the opposite. First of all, negative impacts would be on water, because hydrogen is too water-intensive. Air quality, as we've already heard. Fossil fuel dependence, as we've already heard. Okay? And that's the problem is this fossil fuel leakage—also, I'm sorry, inflammability. There's so many things, and what I am really concerned about, besides my rates going up is the fact that the Ballona Wetlands have already been at risk with what the Gas Company is attempting to do. The LA City Council already unanimously voted to stop the facility from going forward from being there and basically time to shut it down. There's so much wildlife that is at risk. And it's pretty interesting how this project is in the guise of environmental help. And yet it's going to destroy the environment and animals. I think this should be a definite No going forward, and I totally second what Jane Velez-Mitchell said and what everybody said, Sierra Club person, I apologize, I don't remember your name; and the people before me have said. It should definitely be a No, thank you very much for listening. I appreciate it. Done.

P13-1

P13-2

Comment No. P13

November 20, 2024
Karen La Cava
731 Broadway Street, Venice, CA 90291
kalacava@yahoo.com

Response to Comment No. P13-1

The commenter expresses opposition to the project and has concerns regarding hydrogen production and its high demand for water, fossil fuel dependence, safety, and costs to ratepayers.

With regard to the concerns about hydrogen production and water demand, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. The proposed project would not produce hydrogen, result in an onsite water demand to produce hydrogen, or increase safety risks related to hydrogen production.

With regard to the commenter's concerns about fossil fuel dependence, as described in Chapter 3, Project Description, of the Draft EIR, one of the objectives of the proposed project is, in part, to provide resilience to maintain the reliability of the LADWP electrical power system to help meet peaks in demand that exceed available renewable generation resources and energy storage capacity. Another objective of the project is to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. As such, the project does not aim to perpetuate dependence on fossil fuels.

With regard to the commenter's concerns about safety, as detailed in Chapter 4, Environmental Impact Analysis, of the Draft EIR, during construction, the handling, documentation, and disposal of hazardous materials and wastes would occur in accordance with federal, state, and local laws and regulations. In addition, given the functions of Scattergood and surrounding uses, the Draft EIR acknowledges the potential to encounter hazardous wastes and contaminated soils during excavation and other construction activities exists. Therefore, a Soil/Sediment Management Plan (MM-HAZ-1) and Waste Management Plan (MM-HAZ-2) would be implemented to identify and properly manage hazardous materials such that accidental releases to the environment are minimized, reducing potential impacts to less than significant. During operation, similar to existing conditions, in accordance with the existing Risk Management Plan for Scattergood, all project components would be designed to ensure hazardous materials would be contained and that such substances would not spill or leak, and handling would occur in conformance with applicable local, state, and federal regulations. With regard to hydrogen-related hazards during project operation, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

With regard to the commenter's concerns about cost, the purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. Therefore, the commenter's concerns do not address the adequacy of the Draft EIR, and no further response is required.

The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration

Response to Comment No. P13-2

The commenter expresses that they agree with previous commenters who oppose the project. The commenter claims that the project would impact the Ballona Wetlands and wildlife and states the project is "in the guise of environmental help." However, the commenter does not provide evidence to support these claims and does not specifically address the adequacy of the Draft EIR. No impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands which are located approximately 3 miles northwest of the project site. Furthermore, as discussed in the Initial Study prepared for the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. As such, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Comment No. P14

Hello, this is Dr. Hari Lamba of Solar Battery Hydrogen Incorporated. I'm dedicated to demonstrating that solar energy can be stored in electrolytic hydrogen as a major solution to climate change. I've said so in my book, Brighter Climate Futures, which is the only quantitative actionable plan for meeting 1.5 C. I greatly applaud the Intermountain Power Project with the development of salt caverns, and I'm told that the turbine gas turbines for the 30% blend had already been delivered. I just urge you never to use gray or brown hydrogen and we need to use only green hydrogen. I believe this is strong supporter of the use of renewable hydrogen. The gas turbines, as has been pointed out, do create NO_x. I would strongly urge that some R&D be done, because if temperatures are less than 800°F, there are no NO_x generated with hydrogen. So I definitely recommend spending R&D dollars for that. I also say that although you may not have the facilities here, that you replace fossil fuel power plants with solar battery hydrogen power plants where the hydrogen is produced on site using solar energy and reused at night. This will definitely reduce air pollutions. I recommend that you use some fuel cells onsite and only turn on gas turbines when you need it as a peaker plant. I strongly support this project, but I hope you will listen to some of my recommendations and let me know if they are practical. Thank you very much. And onward with renewable hydrogen. Thank you.

P14-1

Comment No. P14

November 20, 2024
Hari Lamba
Solar Battery Hydrogen, Inc.
hlamba101@gmail.com

Response to Comment No. P14-1

The commenter expresses support for the use of green hydrogen and refers to their book and another project to support such use. The commenter recommends that research and development be conducted to investigate how gas turbine temperatures can reduce NO_x emissions. The commenter also recommends that fossil fuel power plants be replaced with solar battery hydrogen power plants where the hydrogen is produced onsite, and that gas turbines be turned on only when needed as a peaker plant. As described in **Topical Response No. 2 – Hydrogen**, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. In conclusion, the commenter states that they strongly support this project. The comment does not address the adequacy of the Draft EIR, and no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P15

Faith Myhra with Protect Playa Now. I live in West Los Angeles, near Scattergood, and I'm a customer of LADWP. I'm deeply concerned about this proposal to retrofit Scattergood to burn hydrogen. This is not a genuine step to 100% clean, renewable energy. Instead, it represents a risky, unsustainable project that will leave ratepayers with stranded assets. Despite claims that hydrogen is the fuel of the future, the reality is that it serves a backdoor for natural gas—sorry— methane gas, to remain a part of our energy grid. Fossil fuel companies like SoCalGas are pushing for hydrogen in projects like this, because it allows them to keep burning methane gas under the guise of innovation. Former LA City Council, Member Paul Koretz went on record, saying that SoCalGas lobbyists openly admitted their plan to use hydrogen to “keep the methane flowing for as long as possible”. I urge you to reject this Draft EIR, and instead focus on sustainable alternatives such as grid scale battery, energy storage systems which align with our community's health, environmental justice, and the need for genuine climate action. I appreciate you holding this space, and I really hope that you will take this to heart because we need to be past the point where we're looking at fake bridge fuels at false solutions. We need LADWP to work for us, not for the fossil fuel industry. Thank you.

P15-1

P15-2

Comment No. P15

November 20, 2024
Faith Myhra
Protect Playa Now
famyhra@gmail.com

Response to Comment No. P15-1

The commenter expresses opposition to the project and states that the project is a backdoor for fossil fuel companies like SoCalGas to further methane usage in the energy industry. The commenter states that the project is unsustainable and will harm ratepayers. However, the commenter does not provide evidence to support these claims and does not specifically address the adequacy of the Draft EIR, and no further response is required. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P15-2

The commenter requests that the Draft EIR be rejected and that other alternatives, such as grid-scale battery energy storage systems, be considered in order to align with community health, environmental justice, and climate action. The commenter is referred to **Topical Response No. 4 – Alternatives** for a summary of alternatives that were considered as part of the Draft EIR. As detailed therein, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Comment No. P16

Thank you, Marcia Hanscom, with Defend Ballona Wetlands and the Coastal Lands Action Network. First, let's talk about the project description. You're calling this green hydrogen. And it is not green hydrogen because of the fact that you need 70% fossil gas to make this work. I'll say something more about that in a minute. But the project description is crucial. I've seen many judges throw out Draft EIRs/Final EIRs because the project description was not accurate, so get that right? Secondly, February 11th, 2019, almost 6 years, Mayor Eric Garcetti said this was going to be the end of methane fossil gas. Well, he called it natural gas, but it is methane fossil gas you're going to be using. He said three electricity plants would, including Scattergood, would have their powering up provided by renewable energy. So there's a huge flaw in this Draft EIR because LADWP has left out the connection with the fossil gas storage facility in Playa del Rey, which is where this gas is stored currently. These 2 sites are inextricably linked, and you have not included that in your analysis. 70% fossil gas is the problem. I heard your staff person say that there is a clear path for only hydrogen by 2035. That is not accurate. I have listened to experts and scientists this entire last year in many meetings, and they say they don't know when or if they can get to 100% hydrogen. So we're still using fossil gas. The U.S. has signed the global methane pledge. It says, with 155 other countries, saying that they are going to, we are all going to cut global methane emissions. This is not the way to do it. You've got to go back the other way.

P16-1

P16-2

P16-3

Comment No. P16

November 20, 2024
Marcia Hanscom
Defend Ballona Wetlands; Coastal Lands Action Network
coastallandsactionnetwork@gmail.com; defendballonawetlands@gmail.com

Response to Comment No. P16-1

The commenter states that the project description is misleading and the project "is not green hydrogen because of the fact that you need 70 percent fossil gas to make this work." The commenter is directed to **Topical Response No. 2 – Hydrogen** and Section 3.2.2 of the Draft EIR. As described therein, although the proposed rapid-response CCGS would be hydrogen-ready, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. Therefore, the CCGS that would be installed at Scattergood must be capable of combusting a mixture of natural gas and a minimum of 30 percent hydrogen by volume and combusting 100 percent natural gas on the assumption that this may be the circumstance during the initial phases of operation of the proposed CCGS; the analyses in the Draft EIR are based on these assumptions. Therefore, the commenter's concern does not identify any information that meets any of the criteria for revisions to or recirculation of the Draft EIR. The comment is noted and will be forwarded to the decision-makers for consideration.

Response to Comment No. P16-2

The commenter references a quote by the previous mayor of the City of Los Angeles, alluding to replacement of methane use with renewable energy at three plants, including Scattergood. The commenter suggests, based on these remarks, that the Draft EIR is flawed because "LADWP has left out the connection with the fossil gas storage facility in Playa del Rey, which is where this gas is stored currently." The commenter states that Scattergood and the facility at Playa del Rey are inextricably linked and should have been analyzed together.

While the commenter references statements from the City's previous mayor that are not specific to the project, it should be noted that the project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study (LA100 Study),[21] which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources, as described in Chapter 3, Project Description, of the Draft EIR. The LA100 Study, the final report for which was published in 2021 was a multi-year effort undertaken jointly by the NREL and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Across all scenarios, the requirement for firm local generation assets (i.e., located within the Los Angeles Basin) that can be readily dispatched in a controlled manner in response to demand was recognized as essential under a range of foreseeable but unpredictable circumstances that could temporarily limit the supply of renewable energy resources coming into

[21] Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. Available at: https://maps.nrel.gov/la100/la100-study/report.

the City. Under such circumstances, firm (i.e., dependable) local generation would be critical to maintaining system resilience and reliability and reducing the risk of power grid collapse.

In addition, as described in Chapter 3, Project Description, of the Draft EIR, one of the objectives of the proposed project is to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. The project does not aim to perpetuate dependence on fossil fuels. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Also, as described in Section 3.3.1 of the Draft EIR, the project site and the proposed uses are limited to the Scattergood facility, which is overseen by LADWP; LADWP has no jurisdiction over SoCalGas' facilities, and the proposed project does not entail any additional uses of SoCalGas facilities, such as that referenced by the commenter. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility.

Therefore, the commenter's concerns do not address the adequacy of the Draft EIR or identify any information that meets any of the criteria for revisions to or recirculation of the Draft EIR. No further response is required.

Response to Comment No. P16-3

The commenter disagrees with a statement made in the project's presentation regarding the availability of 100 percent hydrogen by 2035. The commenter is directed to **Topical Response No. 2 – Hydrogen** and Section 3.2.2 of the Draft EIR. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As previously described above in **Response to Comment No. P16-1**, although the proposed rapid-response CCGS would be hydrogen-ready, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. Therefore, the CCGS that would be installed at Scattergood must be capable of combusting a mixture of natural gas and a minimum of 30 percent hydrogen by volume and combusting 100 percent natural gas on the assumption that this may be the circumstance during the initial phases of operation of the proposed CCGS; the analyses in the Draft EIR are based on these assumptions. The commenter's concern does not address the adequacy of the Draft EIR or identify any information that meets any of the criteria for revisions to or recirculation of the Draft EIR. The comment is noted and will be forwarded to the decision-makers for consideration.

Comment No. P17

Hi, my name is Nicolas Gardner. I'm a resident of northeast Los Angeles, but I grew up in the South Bay, and my family's right by the Scattergood Plant, and that's where my family lives right now. I am with the Sunrise Movement Los Angeles, and on behalf of myself and my organization, just want to share our great concern about the LADWP's plan to retrofit the Scattergood Generating Station to burn hydrogen. These plans to expand hydrogen production across Los Angeles is incredibly risky, of course, to the physical damage it could present to the community but also because of the climate impacts. Hydrogen is incredibly water intensive. It will negatively impact air quality and will further our dependency on fossil fuels at a moment where we should actually, we need to be moving away from them. So, you know, we urge the rejection of this Draft EIR and moving towards more community-based green models for energy. Thank you so much.

P17-1

P17-2

Comment No. P17

November 20, 2024
Nicolas Gardner
Sunrise Movement, Los Angeles
nico.gardnerserna@gmail.com

Response to Comment No. P17-1

The commenter expresses concerns regarding the expansion of hydrogen production and its safety risks and high demand for water. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project. The proposed project would not produce hydrogen, result in an onsite water demand to produce hydrogen, or increase safety risks related to hydrogen production. As stated in Topical Response No. 2 and the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. As such, no additional response is required.

Response to Comment No. P17-2

The commenter states that the project's use of hydrogen will negatively impact air quality and further dependency on fossil fuel. The commenter requests that the Draft EIR be rejected and that community-based green energy models be considered.

As detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The commenter is also referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, a variety of alternatives to the project, including alternative in-basin clean energy generation, were considered but dismissed due to infeasibility, failure to meet the project objectives, and/or inability to avoid or lessen significant environmental impacts.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P18

Hi, my name is Brittany Rivas, she/hers. I'm a resident of Southeast LA and work in Wilmington, CD 15. I would just like to thank LADWP for this opportunity to comment on Scattergood Draft EIR. Some points I would like to share and concerns around LADWP's plans to retrofit the Scattergood power plant to burn hydrogen are that this project will cause additional impacts to environmental justice communities like the ones in Wilmington. LA is already in extreme nonattainment for critical pollutants, including ozone. NO_x emissions from hydrogen combustion lead to the creation of ozone and smog, and as it is in Wilmington, there is an abundance of truck traffic, diesel truck traffic to the ports and things like that that already cause harm to this area. In addition to the other gas plants/things that exist there, so definitely don't need more of that. The impacts will also exacerbate the poor air quality and disproportionately impact the health of frontline communities living near the plant. Something else to know is that the environmental impacts of the project extend beyond the Scattergood gas plant as hydrogen will need to be made and transferred to the facility. Additionally, LADWP is actively evaluating the transition of other in-basin gas plants to hydrogen, which we don't need, and which will expand the impacts of hydrogen combustion. LADWP's gas plants need to be retired already. This project will prolong the use of gas for an undisclosed period, as the future of hydrogen remains uncertain, due to the technological limitations and its high costs. Our frontline communities need and deserve more than false solutions like this one, and just want to thank you for your time and consideration for, consideration of, the many impacts of the Scattergood modernization project. And I hope you all will reject the Draft EIR and prioritize your community and climate health over another risky combustion technology. Thank you so much.

P18-1

P18-2

Comment No. P18

November 20, 2024
Brittany D. Rivas
bdrv427@gmail.com

Response to Comment No. P18-1

The commenter expresses concerns regarding air quality impacts and impacts to environmental justice communities. The commenter states that the project's impacts will exacerbate poor air quality and disproportionately impact the health of frontline communities living near Scattergood.

The commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not include analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenters are also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. As such, this concern does not identify any new impacts or substantially new additional analysis or require additional or modified mitigation measures to the Draft EIR, and no further response is required. Nonetheless, the concern is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

With regard to the commenter's air quality concerns, as detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of

Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

Response to Comment No. P18-2

The commenter expresses concern regarding environmental impacts from hydrogen production and transport. The commenter also states that LADWP is actively evaluating the transition of other in-basin gas plants to hydrogen, which the commenter opposes. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.3.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because the details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, as stated in Section 3.3.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. In addition, while the commenter is expressing concerns about other LADWP facilities, such facilities are not included as part of the proposed project and any future project at other LADWP sites would be subject to environmental review specific to its site and future scope.

The commenter requests that the Draft EIR be rejected and states that the project will prolong the use of gas for an undisclosed period due to the technological limitations and high costs. However, the commenter does not provide evidence to support these claims and does not specifically address the adequacy of the Draft EIR. In addition, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. No further response is required.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P19

Hi, I'm Eric Gill. I am a co-owner of a small mechanical engineering firm in the valley, and I reside in San Pedro, and I'm an organizer for Extinction Rebellion in Los Angeles. Can you hear me okay? Okay, thank you. Thank you very much for putting together this meeting tonight. However, I note that there are a number of basic conceits at the basis of the idea of rebuilding Scattergood that are simply erroneous. Many of those have been mentioned, but I'll go back and emphasize a few. First of all, the idea that there is such a thing as green hydrogen is entirely theoretical at this point, and unlikely to come to any fruition at scale. So if the justification for this is based on an idea of green hydrogen, then the justification is false. It would be hard to come to any other conclusion other than that this is really about keeping Sempra aka SoCalGas in the game. And actually one of the best things we could do would be to get them out of the game, and then we could make real progress. The second conceit problem is I'm not hearing any conversation about the emergency we're in, which is climate change. A gentleman earlier mentioned 1.0 C. Sir, we have blown way past that already. We really should be looking at ways of cutting consumption. That's what we really have to do. So you paid some lip service to distributed power early in the presentation, but this project is the opposite of that. This is a centralized power source, which is one of the problems with resilience in energy grids. Right? So why would you move in that direction. It doesn't make any sense to me. I also just think we should be thinking about how you transition, not more power, more power, not doubling down on fossil fuel. Thank you.

P19-1

P19-2

Comment No. P19

November 20, 2024
Eric Gill
Extinction Rebellion Los Angeles
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Response to Comment No. P19-1

The commenter states that green hydrogen is entirely theoretical and unlikely to come to fruition, and therefore the project would allow Sempra/SoCalGas to continue to persist in the industry, which the commenter opposes. While the comment does not specifically address the adequacy of the Draft EIR, it should be noted that green hydrogen has been utilized at similar scale. The U.S. Energy Information Administration reports that natural gas power plant operators across the U.S. are upgrading existing turbines to use a blend of natural gas and hydrogen, testing fuel blends at existing power plants, and constructing new combined cycle generating systems ranging from 74 megawatts (MW) up to 1,158 MW.[22] As discussed in the Initial Study of the project (Appendix A of the Draft EIR), because the project is a CCGS, it would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P19-2

The commenter expresses concerns regarding climate change and states that the project is a centralized power source, which the commenter describes as one of the problems with resilience in energy grids. The commenter supports having distributed power generation and reiterates concerns regarding the continued use of fossil fuels. With regard to climate change, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts.

As described in Chapter 3, Project Description, of the Draft EIR, the proposed project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study (LA100 Study), which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources. The LA100 Study, the final report for which was published in 2021, was a multi-year effort undertaken jointly by the National Renewable Energy Laboratory (NREL) and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Furthermore, the commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, although local distributed renewable

[22] U.S. Energy Information Administration. 2024. In-Brief Analysis: U.S. electric power sector explores hydrogen cofiring at natural gas-fired plants. Available at: https://www.eia.gov/todayinenergy/detail.php?id=63084#:~:text=Power%20plants%20under%20construction,cofire%20up%20to%2030%25%20hydrogen. Accessed September 2025.

generation can be relatively rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed power generation, such as local solar generation, is complementary to the proposed project and will continue as planned whether or not the project is implemented. The NREL Alternatives Report further affirms that adding such variable renewable generation resources cannot meet the reliability requirements of the proposed project (e.g., provide electricity for multiple hours in a row [at least 10 hours] and for multiple days in a row during late summer afternoons and into the evening).

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P20

Hello, my name is Dr. Craig Sheldon. I am an atmospheric chemist, and I've only recently been made aware of this project, so I have quite a few questions. Number one is hydrogen is a very water intensive solution to pretty much all energy solution, so the first question I have is, where is the energy coming from? We do have a fresh water energy management crisis that we are experiencing here in the United States, and if we are consuming fresh water for this project, how are we going to replace that for our food and for our drinking? P20-1

As an atmospheric chemist, I am very concerned about air quality. And as I understand it that hydrogen burning does produce a significant amount of NO_x and CO_2 emissions. And so the question I have for that is, how are these emissions going to be monitored, and how are these emissions going to be mitigated for this project? P20-2

Also, I am largely unconvinced that hydrogen is a meaningful way to address our energy crisis, due to issues of flammability, storage and overall use. If there is, unfortunately, a leak, that hydrogen is just gone from our atmosphere. We can never get it back, which means any water we spent making that hydrogen, we can never get back. Also, if we are transitioning to a quote unquote hydrogen economy, why are we also relying on fossil fuels. Fossil fuels are unequivocally destroying the planet, and we need to be building infrastructure to transition away from, not incorporate with, fossil fuels. That is all I have to say. Thank you. P20-3

Comment No. P20

November 20, 2024
Craig Sheldon
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Response to Comment No. P20-1

The commenter expresses concerns regarding hydrogen production and its high demand for water. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project. The proposed project would not produce hydrogen, result in an onsite water demand to produce hydrogen, or increase safety risks related to hydrogen production. As stated in Topical Response No. 2 – Hydrogen and Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. Because the details related to the infrastructure needed to support the proposed project do not currently exist, any such analysis would be speculative and of little informational value at this time. As such, no additional response is required.

Response to Comment No. P20-2

The commenter expresses concerns regarding air quality, NO_x and CO_2 emissions, mitigation, and emission monitoring.

As detailed in Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, the project's impacts on GHG emissions would be less than significant. With regard to air quality impacts, as detailed in Section 4.2, Air Quality, of the Draft EIR, emissions during the commissioning phase of the proposed project would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

With regard to concerns about emissions and monitoring, the proposed project would be subject to SCAQMD's monitoring, recordkeeping, and reporting requirements. As required by SCAQMD, a CEMS will be installed for monitoring and recording of NO_x emissions. CO_2 emissions, on the other hand, are estimated based on fuel use and are subject to California Air Resources Board and EPA reporting requirements.

With regard to reducing NO_x emissions, as described in Section 3.5.1.1 of the Draft EIR, the proposed CCGS would use a combination of processes to control air pollutant emissions, including dry burner technologies for the combustors in the combustion turbines and a SCR system to reduce the NO_x emissions and comply with SCAQMD requirements. As for the mitigation of CO_2 emissions, combustion of hydrogen does not generate CO_2 emissions.

No further response is required. Nonetheless, this comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P20-3

The commenter expresses concerns regarding reliance on hydrogen due to its safety risks related to flammability, storage, leakage, and overall use. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, the project would comply with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), to provide an adequate and safe hydrogen system that would, among various criteria, monitor for hydrogen leakage, ignition, and other precautions. As concluded in the Draft EIR, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The commenter also states that the project is prolonging use of fossil fuels and there needs to be a transition away from fossil fuels. As described in Chapter 3, Project Description, of the Draft EIR, one of the objectives of the proposed project is, to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. The project does not aim to perpetuate dependence on fossil fuels. The comment does not address the adequacy of the Draft EIR, and no further response is required. Nonetheless, this comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P21

Good evening. My name is Alex Jasset, and I'm here as a ratepayer, and on behalf of Physicians for Social Responsibility, Los Angeles. I remain deeply concerned about the Scattergood project for a variety of reasons, including public health and safety, environmental justice, reliability, cost, and the further entrenchment of the fossil fuel industry at a time when LA needs to be leading the manage decline off of these fuels. As the LA100 study itself states: “there is considerable uncertainty regarding hydrogen's long-term cost and commercial availability, as well as generator modifications needed to use these fuels. There is also uncertainty as to how long it will take to develop infrastructure for transportation and storage.” In the time since the report's publication, these concerns have not been realistically addressed. The Draft EIR says that the startup and shutdown operations will create uncontrolled and uncontrollable emissions air impacts, it calls “significant, and unavoidable,” Because this retrofit is intended as a peaker plant, it's reasonable to assume that there will be a lot more startups and shutdowns than with baseload generation, meaning these increased emissions, including VOCs, carbon monoxide and nitrogen oxides would likely be a frequent occurrence, and could significantly impact the public health of nearby residents. While we agree that these impacts would be significant, we don't believe that they are unavoidable. The NREL study mentioned several options to cost effectively delay the need for new in-basin combustion. We believe that these cleaner, more affordable, often scalable options, should be thoughtfully and aggressively pursued first before committing us to an expensive, risky, and dangerous pathway, such as hydrogen combustion. Even if DWP gets everything right, a single problem or delay anywhere in the supply chain could derail or delay the entire project, increasing hydrogen costs, which would be passed on to ratepayers, potentially forcing us to continue burning methane or dirty hydrogen because of low green hydrogen supply and a failure to pursue alternative scalable pathways. We hope you will reject the Draft EIR and pursue truly transformative approaches that center community resilience and public health over fossil fuel interests. Thank you.

P21-1

P21-2

P21-3

Comment No. P21

November 20, 2024
Alex Jasset
Physicians for Social Responsibility, Los Angeles
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Response to Comment No. P21-1

The commenter expresses concerns about the project for the following reasons: public health and safety, environmental justice, reliability, cost, and further entrenchment of the fossil fuel industry.

With regard to public health, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

With regard to hydrogen-related safety, the commenter is referred to **Topical Response No. 2 – Hydrogen** and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As discussed therein, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

With regard to other aspects of safety, the commenter is referred to the Initial Study of the project (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, which concluded that no impacts would occur, impacts would be less than significant, or less than significant with mitigation for safety-specific topics discussed under the following CEQA issues: geology and soils, hazards and hazardous materials, hydrology and water quality, transportation, and wildfire.

With regard to environmental justice, the commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the HRAs that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors,

the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. As such, the project would not result in disproportionate impacts to environmental justice communities.

With regard to reliability, **t**he commenter is referred to Section 1.2, Project Background, of the Draft EIR, which states the following:

> LADWP has identified the proposed project as integral to the goal of implementing a carbon-free energy system providing reliable and sustainable electrical power for the City of Los Angeles (City). Based on findings in the Los Angeles 100% Renewable Energy Study prepared by National Renewable Energy Laboratory and LADWP as well as the 2022 Power Strategic Long-Term Resource Plan [SLTRP] prepared by LADWP, the continued availability of local energy generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area is necessary to maintain the resilience and reliability of the City's electrical power grid. LADWP's Scattergood Generating Station (Scattergood) has been identified as the most immediate and instrumental location in relation to the requirement for firm (i.e., dependable) in-basin generation capacity due to the projected demand for energy in areas of the City that Scattergood serves.

Accordingly, the proposed project is critical to ensuring the resilience of the local energy grid. The commenter is also referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for further discussion regarding reliability.

With regard to cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

With regard to the concern regarding further entrenchment of the fossil fuel industry, the commenter does not provide evidence for these claims and does not specifically address the adequacy of the Draft EIR. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P21-2

The commenter provides a quote from the LA100 study regarding the uncertainty of hydrogen infrastructure, and the commenter states the concerns have not been addressed. The commenter is referred to **Topical Response No. 2 – Hydrogen.** As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen

infrastructure, including the transport to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system, including safe transport of hydrogen, will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P21-3

The commenter expresses concern regarding the significant and unavoidable impacts of the project and suggests that these impacts are not unavoidable since there are other alternatives available. The commenter also requests that the Draft EIR be rejected. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project, including renewable energy alternatives, have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA Guidelines. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. For example, a grid-scale battery energy storage system (BESS), while technically feasible, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as the LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Therefore, the project considered a reasonable range of alternatives, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P22

Buenas noches, mi nombre es María Serafin. Vivo en la ciudad de Wilmington, a muy escasos pasos de aquí de la fábrica que tienen aquí ustedes aquí. La verdad estoy que no estoy de acuerdo con su sistema que ustedes tienen, yo sé que de ahí tal vez tenemos el servicio, soy clienta porque también me llega una factura cada dos meses y la verdad somos familias de bajos recursos, y nosotros también tenemos derecho a tener una vida sana, un aire sano. Tengo un hijo con asma, entonces pienso yo que no se vale que ustedes estén jugando con nuestra salud principalmente. Soy voluntaria por 20 años de Hawaiian y he visto como cada vez que los niños salen al patio o sea tal vez son pequeños que no puedes ver, pero lo están oliendo. Niños chiquitos con cáncer, entonces de donde toda esa contaminación de todas estas organizaciones que están ustedes trabajando, yo sé que necesitamos los servicios, pero a qué costo, a nuestra salud, a la salud de nuestros hijos, a cáncer, a tantas enfermedades, niños con muchas enfermedades. Entonces yo pienso que no estoy de acuerdo con lo que ustedes están haciendo y menos con eso que quieren aprobar porque el hidrógeno lo vas a transportar, no tenemos mucho. En este año hubo una explosión por la Avalon, por la Alameda explotó. Nuestros bomberos, siete de emergencia en el hospital o sea gravemente. Entonces pienso yo que no se vale, si están por debajo de la agua, cuando ya les den permiso, qué más van a hacer? Y nosotros las facturas de nosotros no son baratas son caras y estamos todavía pagando el alto precio de nuestra salud. Entonces yo pienso que esto que ustedes están planeando, siéntense, hablen bien, no se vean en el dinero, porque el dinero compra, si. Les compra la vida a ustedes. Yo los invito a ustedes venir a Wilmington para que en cuanto ustedes entren aquí a nuestra área sientan eso en la garganta que sientes eso que te pica, sienten eso que tú una comezón en la piel. Nosotros ya estamos impuestos porque aquí vivimos pero ustedes no. Yo invito a todas esas personas que están arriba de su organización, yo sé que están trabajando y yo sé que están haciendo porque tengamos esta energía, pero hagan algo bueno. Energía buena, energía limpia, de todas maneras estamos pagando y las facturas no son baratas, entonces yo pienso que necesito que hagan algo. Gracias.

[English Translation]: Good evening, my name is María Serafin. I live in Wilmington, just a few steps from the factory you have here. The truth is that I do not agree with your system that you have, I know that perhaps we have the service from there, I am a customer because I also receive a bill every two months and the truth is we are low-income families, and we also have the right to have a healthy life, healthy air. I have a son with asthma, so I don't think it's right for you to be playing with our health first and foremost. I've been a volunteer at Hawaiian Elementary School for 20 years, and I've seen how every time the children go out onto the playground—I mean, maybe they're little, you can't see them, but they can smell it. Little children with cancer, so where does all this pollution come from, from all these organizations you're working with? I know we need these services, but at what cost? To our health, to the health of our children, to cancer, to so many illnesses, children with so many illnesses. So I don't agree with what you're doing, much less with what you want to approve, because you're going to transport hydrogen; we don't have much of it. P22-1

This year there was an explosion on Avalon, an explosion on Alameda. Our firefighters, seven in emergency at the hospital, are seriously injured. So I think it's not worth it, if they are under the water, when they are given permission, what else are they going to do? And our bills aren't cheap, they're expensive and we're still paying the high price for our health. So I think that what you're planning—sit down, talk clearly, don't focus on money, because money buys, yes. It buys your lives. I invite you to come to Wilmington so that as soon as you enter our area, you'll feel that stinging sensation in your throat, that itching sensation on your skin. We are already imposed because we live here, but you don't. I invite all those people who are at the top of your organization, I know they are working and I know what they are doing so that we have this energy, but do something good. Good energy, clean energy. We're still paying, and the bills aren't cheap, so I think I need you to do something. Thank you. P22-2

Comment No. P22

November 20, 2024
María Serafin
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Response to Comment No. P22-1

The commenter expresses opposition to the project due to air pollution and public health concerns such as asthma and cancer. The commenter states that Wilmington, where the commenter resides, is already affected by air pollution. It is assumed that the commenter is expressing concerns about refineries in the South Bay and Harbor Generating Station, which is a LADWP generating station located in Wilmington. However, the existing refineries and the Harbor Generating Station are not included as part of the proposed project. In addition, the commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

Furthermore, as also assessed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P22-2

The commenter expresses concern regarding hydrogen transport and cites two explosion incidents. It is assumed that the commenter's Alameda reference is referring to the incident from February 2024 when a compressed natural gas tank exploded and injured firefighters along Alameda Street in Wilmington. In addition, the commenter reiterates that Wilmington continues to experience public health impacts and states that they are paying a high price for their health. The commenter is referred to **Topical Response No. 2 – Hydrogen.** As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure, including the transport, to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system, including safe transport of hydrogen, will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

Comment No. P23

Yes, my name is David Marrett, and I am with the Sierra Club and Third Act, and I want to thank people for the opportunity to speak. Most of what I would like to say has been said, so I'll just hit a few high points. I'm strongly against this project. As other people have said, it seems like we're investing hundreds of millions of dollars in a failed and antiquated system of pumping in gases or mixtures of gases. The basic problem is combustion produces pollution, and LA has the worst air in the country, and combustion within the LA Basin is really a bad idea, and there are alternatives that are proven. And although battery storage today on that particular site might not meet the needs, if you combine community energy, distributed energy resources, and battery storage, you could meet most of these demands, and it's a much simpler solution to me, a proven solution. I think there are a lot of questions about the safety of hydrogen, the production of hydrogen, the environmental impacts of the production of hydrogen, the future costs of hydrogen. I think this will be a very expensive project, and thank you for letting me speak.

P23-1

P23-2

Comment No. P23

November 20, 2024
David Marrett
Sierra Club; Third Act
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Response to Comment No. P23-1

The commenter expresses opposition to the project and echoes previous commenters' concerns about investing in a system that will prolong the use of gas while there are available alternatives (e.g., battery storage and distributed energy resources). With regard to the commenter's concerns about cost, as described in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. Furthermore, with regard to the commenter's support for alternatives, the commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, under Alternative 2, the proposed CCGS would not be constructed and instead, LADWP would implement a grid-scale battery energy storage system (BESS) to store energy during periods of excess generation to be discharged later during periods of high demand. Although Alternative 2 would eliminate air quality impacts associated with the combustion of fuel during commissioning and operations, the BESS would require substantially more real estate, which would increase the footprint of construction impacts and may be cost-prohibitive and cause substantial delays in implementation of the project. In addition, the BESS would not provide a readily dispatchable, longer duration energy source during periods of critical demand when major interruptions to service occur. Furthermore, energy storage is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. As such, while Alternative 2 would be technically feasible, Scattergood would not have enough space to accommodate a BESS with a comparable generation capacity as the proposed CCGS. Furthermore, although local distributed renewable generation can be relatively rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented. The NREL Alternatives Report further affirms that adding such variable renewable generation resources cannot meet the reliability requirements of the proposed project (e.g., provide electricity for multiple hours in a row [at least 10 hours] and for multiple days in a row during late summer afternoons and into the evening).

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P23-2

The commenter expresses concerns regarding the hydrogen safety, costs, and production and its environmental impacts. The commenter is referred to **Topical Response No. 2 – Hydrogen.**

As discussed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. As specified in Section 3.2.2 of the Draft EIR, the EIR does not address green hydrogen infrastructure because the details in terms of the production, delivery, and storage infrastructure are currently unknown and any such analysis would be speculative and of little informational value. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system, including production and related impacts, will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. With regard to the commenter's concerns regarding cost, as stated above and in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P24

Thank you. I'm Patty Glueck, co-founder of the Aliso Moms Alliance. I'm a DWP ratepayer. I urge you to reject this Draft EIR. The use of gas blended hydrogen is not compatible with public health and safety. As someone who advised LA County Public health for the Aliso Canyon disaster health study, I know there's cancer risk from the use of methane. SoCalGas cares only about its executives, bank balances, and not about the community. Their product should go the way of the dinosaur. Please consider other methods, such as battery storage, which is getting better and better. Thank you very much.

P24-1

P24-2

P24-3

Comment No. P24

November 20, 2024
Patty Glueck
Aliso Moms Alliance
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Response to Comment No. P24-1

The commenter requests that the EIR be rejected and states that the use of gas blended hydrogen is not compatible with public health and safety. The commenter states they have advised Los Angeles County Public Health with the Aliso Canyon disaster health study and that cancer risk is associated with use of methane. The commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

With regard to the commenter's concerns about safety, as detailed in Chapter 4, Environmental Impact Analysis, of the Draft EIR, the handling, documentation, and disposal of hazardous materials and wastes during construction would occur in accordance with federal, state, and local laws and regulations. In addition, given the functions of Scattergood and surrounding uses, the Draft EIR acknowledges that the potential to encounter hazardous wastes and contaminated soils during excavation and other construction activities exists. Therefore, a Soil/Sediment Management Plan (MM-HAZ-1) and Waste Management Plan (MM-HAZ-2) would be implemented to identify and properly manage hazardous materials such that accidental releases to the environment are minimized, reducing potential impacts to less than significant. During operation, similar to existing conditions, in accordance with the existing Risk Management Plan for Scattergood, all project components would be designed to ensure hazardous materials would be contained and that such substances would not spill or leak, and handling would occur in conformance with applicable local, state, and federal regulations. With regard to hydrogen-related hazards during project operation, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P24-2

The commenter expresses opposition to SoCalGas' products and states that SoCalGas cares only about its executives, bank balances, and not about the community. The comment does not

pertain to the project or specifically address the adequacy of the Draft EIR. Accordingly, no further response is required.

Response to Comment No. P24-3

The commenter asks that other methods, such as battery storage, be considered. The commenter is directed to **Topical Response No. 4 – Alternatives** for a summary of alternatives discussed in the Draft EIR. As detailed therein, a grid-scale battery energy storage system (BESS) alternative was evaluated under Alternative 2. While technically feasible, the BESS Alternative would not provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions.

Comment No. P25

Yes, I'm Annie Abram. I am with the Executive Company with the Sierra Club. and I am vehemently against this project, and I choose the 1st option, which says no project at all, because this is another scheme by the SoCalGas Company, which will continue with the pipelines under the Ballona Wetlands guised in the name of hydrogen, which requires more than 70% methane gas, which is going to be carried on by the SoCalGas company. There are more than 1,700 species that are the native animals that are essential going extinct, and these animals are the ecosystem balancers. If we need to do anything, we need to rewild and welcome back more of the animals that we have pushed into extinction and into endangered status. We are causing our health and the health of Mother Nature's children, who balance our ecosystem, all in the name of greed. This is a project of greed. And this is a Ballona Wetland bulldozing guise under the name of hydrogen, green hydrogen. There's nothing green about hydrogen. It is dirty hydrogen, and this is something that should not go forward, as had been said by so many. Almost every single person said this. Even the city has decided that this project should not go forward. If anything, that should be done, Southern California Gas Company leave Ballona. Leave Ballona alone. We need to rewild our planet's health, animals, and our health is far more important than the greed of certain companies like Gas Company. LADWP, break your relationship with the gas company. This is not the way to go. We need to breathe. We need to have clean water, and we need our soil, and all animals are needed in the wild. Thank you. And again, I'm against. Number One is the choice I choose, and please give us extension for everyone to speak up about this. Everyone needs to know about this until three, four months, until March, if you please. Thank you.

P25-1

P25-2

Comment No. P25

November 20, 2024
Annie Abram
Sierra Club
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Response to Comment No. P25-1

The commenter expresses opposition to the project and states that it is a project of greed and dirty hydrogen and a scheme by SoCalGas to use pipelines under the Ballona Wetlands and further the natural gas industry. The commenter states that LADWP should break its relationship with SoCalGas. The commenter also states that the project would negatively affect nature, wildlife, and the Ballona Wetlands, which instead should be rewilded.

The commenter does not provide evidence to support its claims or specifically address the adequacy of the Draft EIR; however, it should be noted that the project does not propose to store methane and hydrogen in the Ballona Wetlands. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. In addition, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. Therefore, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value.

In addition, the commenter is referred to biological resources analyses in the Initial Study of the project (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR. As discussed therein, a Biological Resources Assessment was prepared for the proposed project, which determined the potential for special-status species to occur on or within the general vicinity of Scattergood. The assessment found that based on a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, only the El Segundo blue butterfly is expected to occur in the study area. However, based on the results of the conducted field survey, no suitable habitat for the El Segundo blue butterfly was observed that would be impacted by the proposed project footprint. Nonetheless, as discussed in **Response to Comment No. A1-3**, incidental impacts to El Segundo blue butterfly can be avoided with implementation of the CDFW's recommended mitigation measure, which includes two pre-project surveys to be conducted within one week prior to initiation of construction activities. Accordingly, this mitigation measure will be implemented for the project and is incorporated as Mitigation Measure MM-BIO-2 in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR.

With regard to birds, as described in Chapter 4, Environmental Impact Analysis, of the Draft EIR, although suitable nesting habitat for various year-round and seasonal bird species occur within the survey area, no active nests or birds displaying overt nesting behavior were observed during the field survey of Scattergood. No trees are located within the footprint of the proposed project facilities; therefore, no trees would be removed for the project, and no direct impacts would occur. Indirect impacts to nesting birds within the survey area could occur as a result of noise, increased human presence, and vibrations resulting from construction activities. Disturbances related to

construction could result in increased nestling mortality due to nest abandonment or decreased feeding frequency. Trees suitable for nesting are not generally located adjacent to areas of Scattergood that would be subject to construction activity. Nonetheless, because indirect impacts to nesting birds could occur, nesting bird surveys and protocol would be conducted during project construction pursuant to Mitigation Measure MM-BIO-1 to ensure indirect impacts to nesting birds would be less than significant.

Moreover, no impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres of the fully developed industrial site and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P25-2

The commenter requests an extension of the review period until March. The Draft EIR's public review period, which began on October 31, 2024, was extended five times and lasted 159 days until April 7, 2025.

Comment No. P26

Yes, my name is Kevin Weir. I live in Mar Vista near Scattergood, and I'm a ratepayer. I have deep concerns about the plan to retrofit Scattergood for hydrogen. This proposal doesn't reflect the community's call for sustainable solutions to the climate crisis or commitment to environmental justice. The phase-out of Scattergood stacks isn't being factored into the EIR. At the expense of ratepayers, retrofitting this facility is effectively reviving and hydrogen-washing SoCalGas' continued use of methane at Scattergood. Hydrogen will also require enormous amounts of water from our already tapped water supply and carries serious safety risks due to its highly volatile nature. There are not acceptable—these are not acceptable trade-offs when cleaner, safer options exist. I don't believe a no combustion option is being seriously considered here. The answer cannot be that we cannot meet our energy goals without fossil fuels. We need to aggressively pursue true clean energy storage solutions. I urge you to reject EIR. Instead, LADWP should prioritize innovative, sustainable solutions like grid-scale battery energy storage systems. This approach would provide true climate action, while respecting the health and well-being of our communities. Thank you.

P26-1

P26-2

P26-3

Comment No. P26

November 20, 2024
Kevin Weir
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Response to Comment No. P26-1

The commenter expresses concerns that the project does not support climate crisis solutions or environmental justice. However, it should be noted that as stated in Chapter 3, Project Description, of the Draft EIR, one of the project's objectives is to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. As also described therein, the proposed project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study (LA100 Study), which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources. The LA100 Study, the final report for which was published in 2021, was a multi-year effort undertaken jointly by NREL and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Furthermore, with regard to the commenter's concern about climate change, as detailed in Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, the project's impacts on GHG emissions were determined to be less than significant.

The commenter is also referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenters are also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

The commenter also states that the project will prolong the use of SoCalGas methane at Scattergood. However, this is not proposed by the project or stated in the Draft EIR, the comment does not specifically address the adequacy of the Draft EIR on this issue. SoCalGas, a natural gas distribution utility, is a separate entity from LADWP, which is a municipal water and power utility and the lead agency for the proposed project. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency

of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities.

As such, this comment does not identify any new or substantially new additional analysis or require additional or modified mitigation measures to the EIR. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P26-2

The commenter expresses concern regarding the water demand and safety risks of hydrogen. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project. The proposed project would not produce hydrogen, result in an onsite water demand to produce hydrogen, or increase safety risks related to hydrogen production. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. With regard to onsite hydrogen usage and safety risks, as discussed in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, and **Topical Response No. 2 – Hydrogen** of the Final EIR, the project would comply with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), to provide an adequate and safe hydrogen system that would, among various criteria, monitor for hydrogen leakage, ignition, and other precautions. As concluded in the Draft EIR, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P26-3

The commenter requests that the Draft EIR be rejected and that cleaner and safer alternatives such as gride-scale battery energy storage systems be prioritized. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives, including renewable energy alternatives, have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those impacts in accordance with CEQA. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. With regard to the commenter's suggestion for a grid-scale battery energy storage system (BESS), this was evaluated under Alternative 2. Although Alternative 2 would eliminate air quality impacts associated with the combustion of fuel during commissioning and operations, the BESS would require substantially more real estate, which would increase the footprint of construction impacts and may be cost-prohibitive and cause substantial delays in implementation of the project. In addition, the BESS would not provide a readily dispatchable, longer duration energy source during periods of critical demand when major interruptions to service occur. As such, while Alternative 2 would be technically feasible, Scattergood would not have enough space to accommodate a BESS with a comparable generation capacity as the proposed CCGS. However, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic

Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. The Draft EIR considered a reasonable range of alternatives, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P27

So my name is Ruth Strauss. I'm a citizen of Los Angeles westside. I'm also with the group Solartopia. So first of all, this is like deja vu all over again. I remember a hearing with the CPUC on nuclear and 99% of the people who testified against nuclear. We have a Fukushima part 2 about to happen, and the CPUC voted against everybody who testified. I have a feeling the same outcome will happen here. So that's number one. But anyway, I'd like a tally to be done of all of the speakers that were for the, well, let's put it this way, were against hydrogen and those who were for, to my knowledge. There's only been one person who's spoken up for it. P27-1

The second thing is this reminds me of when, you know, these oxymorons—clean, you know, clear skies, which was put out by a coal company—and now we're talking about "green hydrogen." and there's methane involved. And you know, it's obvious that methane is one of the top greenhouse gases, and I don't think you have to use your imagination much to understand the recent hurricanes, the devastating hurricanes, and what that was about. P27-2

Also, I'd like to say that the only way I learned about this hearing was through the public radio program of Solartopia. I went to your website. I saw nothing posted anywhere. I even did an internet search, and there was nothing. So I'd like to know, you know, where this was posted publicly, since it is a public utility, I'd like to know where it was posted, so people found out about it. I certainly didn't and wouldn't have except at the last minute. And also I think the reports need to be posted—all these reports that you talked about, and I couldn't hear them very well, because there was distortion listening on the phone, but all of those reports need to be published on the website, LADWP, website with links. And finally, you can't really, you know, we can't see the status on the phone… we can't see the link to the email, in the chat, so please say that. P27-3

Comment No. P27

November 20, 2024
Ruth Strauss
Solartopia
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Response to Comment No. P27-1

The commenter observes that a majority of the speakers at the public meeting have spoken against hydrogen and expresses concern about the outcome of the decision-making process in spite of the opposition. It should be noted that the project must still undergo the review/approval processes and LADWP will prepare Findings and a Statement of Overriding Considerations for the project, pursuant to CEQA Guidelines Sections 15089-15093, which will be provided to the LADWP Board of Commissioners for their review and consideration prior to approval. City Council will have the opportunity to take action after the LADWP Board's action within five meeting days. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P27-2

The commenter expresses concern that proposed use of green hydrogen is an oxymoron and that use of methane would contribute to greenhouse gas emissions and impacts on weather conditions. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. Therefore, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Additionally, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Furthermore, as discussed in Chapter 3, Project Description, of the Draft EIR, the impacts related to the combustion of 100 percent natural gas are analyzed in the EIR based on a conservative assumption that this may be the circumstance during the initial phases of operation of the proposed CCGS, in case of limited availability of hydrogen fuel. In this manner, the analysis considers the range of fuel-mixture (i.e., from a fuel blend of 30 percent hydrogen and 70 percent natural gas to 100 percent natural gas), which would define the limits of the impacts related to combustion. Lastly, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P27-3

The commenter expresses concern regarding the project meeting notices and states that they did not see any postings. The commenter requests that all the project documents be posted online

and that the presenter repeat aloud the relevant contact information for those calling into the meeting.

It should be noted that the project's Notice of Availability (NOA) was prepared in accordance with CEQA Guidelines Section 15087 to notify agencies, interested parties, and members of the public that LADWP, as the lead agency, has prepared a Draft EIR pursuant to CEQA for the proposed project. On October 31, 2024, the NOA and the notice for the public meeting were posted by the Los Angeles County Registrar-Recorder/County Clerk, the State Clearinghouse of the California Governor's Office of Planning and Research (renamed to the Office of Land Use and Climate Innovation as of July 1, 2024), and published in the *Los Angeles Times*, *El Segundo Herald*, and *Torrance Daily Breeze*. The NOA was distributed to over 500 agencies, organizations, California Native American tribal contacts provided by the Native American Heritage Commission, and other interested parties, and owners and occupants located within 500 feet of the project site. The Draft EIR and technical studies were made available for review online at http://www.ladwp.com/envnotices and at the following locations: LADWP's Corporate Environmental Affairs office, the El Segundo Public Library, and Los Angeles Central Library. Lastly, as requested by the commenter, the presenter repeated aloud the LADWP contact information and project website links for the commenter and attendees.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P28

Hi, my name is Nicole Levin, and I'm a ratepayer living in Los Angeles. I'm pretty concerned about this project. I'm a little confused why the environmental impact report didn't address the water usage needed to produce green hydrogen. I've seen estimates saying that it could take like billions of gallons of, like, fresh water to create the amount of hydrogen we'd need for these power plants. And I think, given that Department of Water and Power, and we, you know, water rates are going up. We, like, often are in a drought, like, that'd be something really important to look into. I'm also a little confused about the energy efficiency, like why we would use clean energy from solar and wind to create green hydrogen, which, you know, a report from Earthjustice showed that that results in a substantial energy loss of anywhere between 20 and 40% of energy to create the green hydrogen. We could just be using this clean energy to power our grid directly. I think, yeah, we're forgetting that the big context of this is that we need to shut down these gas plants because they're incredibly toxic to our environment and our communities. And yeah, this project would just extend a gas plant that is supposed to be shut down already. So yeah, thank you.

P28-1

P28-2

Comment No. P28

November 20, 2024
Nicole Levin
nicolejoellelevin@gmail.com

Response to Comment No. P28-1

The commenter expresses opposition to the project and questions why the Draft EIR did not address water usage needed to produce green hydrogen. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project. The proposed project would not produce hydrogen or result in an onsite water demand to produce hydrogen. As stated in Topical Response No. 2 and the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. As such, no additional response is required.

Response to Comment No. P28-2

The commenter questions why clean energy from solar and wind would be utilized to create green hydrogen. However, this is not proposed by the project or stated in the Draft EIR. Additionally, as described above, the proposed project would not produce hydrogen, and LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project. Therefore, no further response is required.

The commenter also states that clean energy should be used to power the grid and that gas plants such as Scattergood should be shut down due to toxic effects on the environment. As described in Section 3.0, Project Description, of the Draft EIR, the proposed project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study (LA100 Study),[23] which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources. The LA100 Study, the final report for which was published in 2021, was a multi-year effort undertaken jointly by the National Renewable Energy Laboratory and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Across all scenarios, the requirement for firm local generation assets (i.e., located within the Los Angeles Basin) that can be readily dispatched in a controlled manner in response to demand was recognized as essential under a range of foreseeable but unpredictable circumstances that could temporarily limit the supply of renewable energy resources coming into the City. Under such circumstances, firm (i.e., dependable) local generation would be critical to maintaining system resilience and reliability and reducing the risk of power grid collapse.

The commenter is also referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, a variety of alternatives to the project, including alternative in-basin clean energy generation, were considered but dismissed due to infeasibility, failure to meet the project objectives, and/or inability to avoid or lessen significant environmental impacts. Therefore, no

[23] Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. Available at: https://maps.nrel.gov/la100/la100-study/report.

further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P29

Hello, my name is Emilza Guzman. I'm a youth leader for environmental justice, with Communities for a Better Environment. And I'm a resident of Wilmington, California. I'm here to oppose the Los Angeles Department of Water and Power's proposed plan to retrofit 2 gas units at the Scattergood generating station to utilize a blend of explosive hydrogen and methane at the at the power plant. Personally, I'm worried for the possible health problems hydrogen can bring, and it's not strange to worry for my community, because I know that my health, along with my communities', continue to be in jeopardy if this plan goes through. If the LADWP are willing to harm the health of a community near Scattergood plant, then they are more than willing to continue harming ours. Our residents, young and old, already deal with health risks from pollution and cumulative impacts; adding hydrogen will only continue it. Please do better. And as our energy provider, we urge you to invest in clean and alternative energy solutions rather than hydrogen. Understand that hydrogen combustion can cause high rates of asthma cancer along with reproductive issues. Stop perpetuating false solutions, and stop upholding the environmental injustice in our community. Thank you.

P29-1

P29-2

P29-3

Comment No. P29

November 20, 2024
Emilza Guzman
Communities for a Better Environment
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Response to Comment No. P29-1

The commenter expresses opposition to the project due to concerns regarding health and cumulative impacts. The commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Further, based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. With regard to cumulative impacts, the commenter is referred to Sections 4.1 through 4.7 of the Draft EIR, which include the cumulative analyses conducted for the assessed environmental topics. As this comment does not specifically address the adequacy of the Draft EIR, no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P29-2

The commenter states that LADWP should invest in clean and alternative energy solutions instead of hydrogen. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project, including renewable energy alternatives, have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those impacts in accordance with CEQA. In summary, the following alternatives were considered but dismissed from further analysis: Alternative In-Basin Clean Energy Generation, Increase Demand Side Management Programs, New and Upgraded Transmission Lines, Retrofit Unit 1 and/or 2, and Develop Proposed Project at Alternative Location. The following alternatives were considered for further analysis: Alternative 1 – No Project, Alternative 2 – Energy Storage, Alternative 3 – Green Hydrogen Powered Fuel Cells, and Alternative 4 – Eliminate Vendor B. It should be noted that the majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. Accordingly, no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P29-3

The commenter states that hydrogen combustion can cause high rates of asthma, cancer, and reproductive issues. The commenter is referred to their previous comment and **Response to Comment No. P29-1** regarding such concerns. In addition, the commenter expresses concern for environmental justice. As such, the commenter is referred to **Topical Response No. 3 –**

Environmental Justice. As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). While the surrounding census tracts and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities, as detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that project construction and operation would not expose sensitive receptors to substantial pollutant concentrations. As such, the project would not result in disproportionate impacts to environmental justice communities. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P30

My name is Josh de Leon. I'm from Long Beach, California. I'm a Commissioner for Equity and Human Relations for the city, although I'm here in my personal capacity and also as a LADWP ratepayer. Really speaking as part of this, this overwhelming chorus of community voices against the Scattergood project, and really calling out the fact that these hydrogen retrofits are doubling down on overburdening these already impacted frontline communities, like my Filipino American community, heavily in West Side, Long Beach and in Wilmington and in Carson. All these areas throughout this, throughout the LA region, where folks feel the impacts of extractive and dirty energy. This is just a continuation of that. We know, as many speakers have already shared, that hydrogen is not a clean technology, that it releases more nitrogen oxide than methane does, that NO_x leads to smog and anyone who knows anything but LA knows LA is choked by far too much smog. And it also seems like a confusing use of resources. Right? 800 million dollar bet on a technology that doesn't exist at scale. And that is not the solution to our long-term energy needs. It's not respecting the ongoing inequity communities face, and it does not properly transition us towards a green energy future. We need a retirement of these dirty, inefficient, and ultimately obsolete energy projects. And a commitment to green and sustainable solutions—this is the kind of thing that we should be looking much more closely at. And this DEIR does not get it, calling for something other than this. We need a better, more effective solution than Scattergood.

P30-1

P30-2

Comment No. P30

November 20, 2024
Joshua De Leon
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Response to Comment No. P30-1

The commenter expresses opposition to the project and concern regarding the project's air quality impacts on frontline communities. As detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that impacts would be less than significant. As also assessed therein, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations must also be approved in accordance with CEQA Guidelines Section 15093.

With regard to the commenter's concerns about frontline communities, the commenter is referred to **Topical Response No. 3 – Environmental Justice.** As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. Notwithstanding, as detailed above and in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that project construction and operation would not expose sensitive receptors to substantial pollutant concentrations. As such, the project would not result in disproportionate impacts to environmental justice communities.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P30-2

The commenter reiterates opposition to the project, states that the project is not a solution to long-term energy needs, and calls for a commitment to green and sustainable solutions. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project, including renewable energy alternatives, have been considered to foster informed

decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA Guidelines. Accordingly, the EIR considered a range of reasonable alternatives to the proposed project that would attain the objectives of the project and would avoid or substantially lessen any significant effects of the project. As detailed in the Draft EIR, the following alternatives were considered but dismissed from further analysis: Alternative In-Basin Clean Energy Generation, Increase Demand Side Management Programs, New and Upgraded Transmission Lines, Retrofit Unit 1 and/or 2, and Develop Proposed Project at Alternative Location. The following alternatives were considered for further analysis: Alternative 1 – No Project, Alternative 2 – Energy Storage, Alternative 3 – Green Hydrogen Powered Fuel Cells, and Alternative 4 – Eliminate Vendor B. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P31

Hi, my name is Bella Gallegos, and I'm a concerned resident of LA, as well as, you know, I'm with Communities for a Better Environment. Thank you so much for the opportunity to speak here in opposition to the Scattergood plant as well. You know, this decision is going to impact the health, safety and quality of life for millions of us. And I really just urge you to hear what other people are saying about how this process should not go forward. I just wanted to reemphasize what Craig, I believe also Nicole, brought up about water usage. And I challenge the way that, you know, tribal cultural resources have been written off as if, you know, a cultural awareness training can mitigate that. I think we're way past, you know, that point and, you know, the destruction of tribal land as well as cultural resources. Water is a cultural resource, and, as you should know, because LA Department of Water and Power plays, you know, one of the biggest roles in this injustice. LA's extreme level of water consumption is taken from other indigenous lands in California, and that often causes, you know, drought and just the inability to survive in these places. So this needs to be considered. You know, it's not just like local native communities who are affected. So I urge you to consider that as well and not move forward with this project, or consider, you know, these other alternatives that were identified in the Draft EIR. These should be considered and given priority before, you know, any further steps on the hydrogen combustion plans are taken. So yeah, please take this opportunity to demonstrate good leadership and do the right thing for your rate payers as well as local communities. Thank you very much.

P31-1

P31-2

P31-3

Comment No. P31

November 20, 2024
Bella Gallegos
Communities for a Better Environment
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Response to Comment No. P31-1

The introductory comment expresses the commenter's opposition to the project and concern for potential impacts on health, safety, and quality of life. This comment does not specifically address the adequacy of the Draft EIR. Nonetheless, with regard to health impacts, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

With regard to the commenter's concerns about safety, as detailed in Chapter 4, Environmental Impact Analysis, of the Draft EIR, during construction, the handling, documentation, and disposal of hazardous materials and wastes would occur in accordance with federal, state, and local laws and regulations. In addition, given the functions of Scattergood and surrounding uses, the Draft EIR acknowledges the potential to encounter hazardous wastes and contaminated soils during excavation and other construction activities exists. Therefore, a Soil/Sediment Management Plan (MM-HAZ-1) and Waste Management Plan (MM-HAZ-2) would be implemented to identify and properly manage hazardous materials such that accidental releases to the environment are minimized, reducing potential impacts to less than significant. During operation, similar to existing conditions, in accordance with the existing Risk Management Plan for Scattergood, all project components would be designed to ensure hazardous materials would be contained and that such substances would not spill or leak, and handling would occur in conformance with applicable local, state, and federal regulations. With regard to hydrogen-related hazards during project operation, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The comment is noted and will be forwarded to the decision-makers for consideration.

Response to Comment No. P31-2

The commenter expresses concern about water demand associated with hydrogen production and refers to water as a tribal cultural resource. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite

water demand to produce hydrogen. Regarding potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis.

The commenter also states that the project would result in impacts to tribal cultural resources and suggests that such resources have been written off with awareness training. The commenter is referred to Section 4.6, Tribal Cultural Resources, of the Draft EIR. As detailed therein, no historical resources currently listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources were identified within the project site. In addition, ethnographic research does not indicate any villages or named places within or near the project site. Therefore, the proposed project would not result in a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in a state or local register of historical resources, and no related impact would occur. In addition, as discussed in the Draft EIR, no tribal cultural resources, including sites, places, landscapes, or objects, were identified within the project site. This conclusion was based on a Sacred Lands File search conducted by the Native American Heritage Commission, archival research, a field survey of the project site and surrounding area, and consultation with Native American tribal representatives pursuant to Assembly Bill (AB) 52. LADWP consulted with two tribes that requested consultation on the proposed project, the Gabrielino Tongva Indians of California Tribe and Gabrieleno Band of Mission Indians - Kizh Nation. Since no specific tribal cultural resources have been identified within the project site, including through AB 52 consultation, because of the aeolian sand dune formation that previously occupied the project site, and due to substantial previous subsurface disturbance within all areas proposed for project construction, the potential for the existence of tribal cultural resources is considered very low. Nonetheless, during the construction of the proposed project, unknown subsurface archaeological resources, including tribal cultural resources, could potentially be encountered during ground-disturbing activities. As such, because the potential exists for unknown buried archaeological resources, Mitigation Measure MM-TCR-1 (Cultural Resources Awareness Training), shall be implemented, as acknowledged by the commenter. Furthermore, the Draft EIR also addresses inadvertent discovery of archaeological resources. Specifically, in the event previously unknown archaeological resources are encountered during construction activities, the proposed project would be subject to California PRC Section 21083.2(i), the provisions of which include immediately halting construction work in the vicinity of the find and LADWP retaining a qualified archaeologist meeting Secretary of Interior standards to evaluate the significance of and determine appropriate treatment for the resource in accordance with the provisions of CEQA Guidelines Section 15064.5 and the National Historic Preservation Act. If the resource is determined to be potentially of Native American in origin, MM-TCR-2 (Inadvertent Discovery of a Tribal Cultural Resource) would be required, which includes further consultation with tribes and resource evaluation and treatment. Therefore, impacts to tribal cultural resources have been considered and would be less than significant with incorporation of the mitigation measures described above.

Accordingly, no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P31-3

The commenter expresses opposition to the project and requests that alternatives to the project discussed in the Draft EIR be considered. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. For example, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. The project considered a reasonable range of alternatives, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P32

Yes, my name is Gregg Aniolek. I'm a resident of West Playa del Rey, and I'm on the Neighborhood Council of Westchester, Playa del Rey residential District 2. I am not speaking on behalf of the Council. I just want to bring up the environmental concerns that people voiced ahead of time. Put those aside for now. And I just want to ask about the I know. I want to comment about the hydrogen. Where is this hydrogen coming from? Okay, natural gas is produced. Naturally it is extracted, it's stored and distributed. Hydrogen has to be manufactured. Where is the energy to manufacture this hydrogen going to come from? Is it going to be more energy than we get in return? Is there return on investment? We don't know anything about— you've not talked about the production of it, the storage, the distribution. You're putting the cart way before the horse here. We need to know about this hydrogen and where it's coming from. There is the Chevron plant down in El Segundo, and there may be some waste streams where you can crack some fuels down and make hydrogen, but I don't know how you can talk about putting a hydrogen plant in when we don't have the hydrogen source and the hydrogen distribution. It needs to be discussed first and a full risk assessment has to be done. I don't know if that Scattergood plant supplies power to LAX or the Hyperion plant, but those are two not essential but critical infrastructures. They must stay powered. And if this plant goes down, and LAX and Hyperion are dependent on that power for power, this is, we're in a crisis situation here. Again, I don't know the distribution of that Scattergood plant, but this is a reliability of a power source is really needed here. And unfortunately, ladies and gentlemen, we can't power all of LA on wind and sun. Germany has tried it, and they had to go back to mining coal. I mean, if you got an idea, let's hear it.

P32-1

P32-2

Comment No. P32

November 20, 2024
Gregg Aniolek
ncwpdrgregg@gmail.com

Response to Comment No. P32-1

The commenter expresses concern regarding the production, storage and distribution of hydrogen. The commenter states that such issues need to be discussed and a full risk assessment should be done. The commenter is referred to the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P32-2

The commenter recognizes that there is a need for reliable power within the region and that the City cannot be powered only by wind and sun. While the comment does not specifically address the adequacy of the Draft EIR, the commenter is referred to **Topical Response No. 4 – Alternatives** for a summary of alternatives analyzed in the Draft EIR which include renewable energy alternatives. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P33

Hi, my name's Catherine Ronan, and I'm a ratepayer. I live in Mar Vista. As far as installing hydrogen ready units, as you acknowledge the availability and cost of hydrogen, green hydrogen, as well as the feasibility of ever getting to 0 greenhouse gas emissions with hydrogen are unknown, if you run a power plant on a 30% hydrogen blend, you only achieve a 14% greenhouse gas reduction. The hydrogen path is just a way of prolonging the use of methane. We don't want to burn hydrogen in our power plants here in the LA Basin. We're already in noncompliance with NO_x emission standards. Secondly, the DEIR doesn't really provide sufficient data to rule out the No Project Alternative. You've stated numerous times that you're reducing the use of all in-basin generation units and will be using them “primarily to meet peaks.” So why do you even need to replace Units 1 and 2 after they shut down in 2029? There are four other units at Scattergood, including rapid response units. Let's start retiring our methane units, not building new ones. Where is the data that shows how much you're currently running the generation units, and what are the reductions you anticipate? Where is the data that shows the timing and amount of the peaks? Where is the plan to reduce peaks? What progress have you made? You have much more that you can do, including demand response which Southern California Edison has already implemented. We're way behind at LADWP. Please provide a more thorough and data-backed analysis of the No Project alternative instead of dismissing it out of hand. We really don't need a new power plant. Thank you.

P33-1

P33-2

Comment No. P33

November 20, 2024
Catherine Ronan
cmronan@gmail.com

Response to Comment No. P33-1

The commenter opposes the use of hydrogen for the project and states it would result in limited reductions in greenhouse gas emissions and its use will just prolong the use of methane. The commenter also states that the LA basin is already in noncompliance with NO_x emission standards.

The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. Therefore, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Additionally, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. With regard to GHG, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts.

With regard to NO_x emissions, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which determined that mass emissions of all criteria pollutants from construction, except for NO_x, would be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P33-2

The commenter states that the Draft EIR does not provide sufficient data to rule out the No Project Alternative. The commenter questions why Units 1 and 2 must be replaced after they are shut down in 2029, particularly since other generation units will remain at Scattergood. The commenter also questions why LADWP is not implementing programs such as demand response that would reduce or eliminate the requirement for the proposed project.

The commenter is referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for a detailed discussion regarding the requirement for the proposed project's generation capacity to maintain grid reliability and the limitations of alternatives, including demand response programs, to achieve this objective.

As discussed in Topical Response No. 1, several converging factors contribute to the critical nature of the reliability objectives that underlie the proposed project, including:

- Retirement of Scattergood Units 1 & 2, effectively mandated by the once-through cooling (OTC) policy, which will create an energy capacity deficit due to transmission bottlenecks in the West Los Angeles Service Area (Westside).
- Electric-grid reliability needs, with specific risks being accelerated by climate change in the form of heat waves, wildfires, and unprecedented storms.
- Regulatory compliance, as required by the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) standards.

The proposed project would have the capability to deliver firm, dispatchable capacity at a specific location within the LADWP system, the Westside, which is vulnerable to stressed grid conditions due to transmission constraints. Additionally, the Westside service area holds particular importance since it includes both LAX and the Hyperion Water Reclamation Plant (WRP).

In 2021, LADWP published the Local Capacity Technical (LCT) analysis study report. The performance criteria and methodology were coordinated with the California Independent System Operator (CAISO) to use a similar metric as was used as part of CAISO's Local Capacity Studies, which also analyze critical system events in accordance with the NERC Transmission Planning (TPL)-001 reliability standard. The LCT evaluated the relationship between Westside load, transmission capacity constraints, and Scattergood generation. The LCT determined that due to the projected load growth on the Westside, where the aggregate system peak demands for the LADWP service area were between 6,895 megawatts (MW) to 7,239 MW, there would be a generation capacity deficit at Scattergood ranging from 254 MW to 350 MW, depending on available transmission capacity serving the Westside and the forecasted load. Without adequate Scattergood generation, NERC reliability criteria would require planned and controlled customer outages at strategic locations to avoid risk of uncontrolled widespread blackouts.

The proposed project was sized at 346 MW because multiple studies have indicated the need for this additional capacity at Scattergood, assuming the retirement of Units 1 & 2, based on current and future projections of both Westside electricity demand and the transmission capacity serving the Westside. In addition to normal projected growth in demand, there are also numerous large-load interconnection requests to LADWP totaling several hundred megawatts on the Westside. The 346 MW capacity of the proposed project was determined to provide reliability and flexibility under the uncertainty of load growth, unforeseen project delays, and the potential of transmission and generation asset outages.

As detailed in Section 5.5.2 of the Draft EIR, though increasing demand-side management programs, including increasing energy efficiency to reduce total energy consumption and demand response to reduce daily peak period demand for energy, would not supply a firm generation capacity in the Los Angeles basin nor help maintain a reliable electrical power system to meet extended peaks in demand that exceed generation capacity or to respond to major interruptions caused by emergency circumstances. Such programs target basic demand reduction and rely on customer behavior. As noted in Topical Response No. 1, LADWP's demand response programs, as delineated in the LA100 Plan, currently target 350 MW of demand reduction. To replace the proposed project with a demand response alternative would essentially require a doubling of current program targets within the Scattergood service area alone, which is not an achievable goal given that the current 350 MW target is inclusive of the entire City of Los Angeles. Aggressive demand-side management is a valuable conservation strategy and is being implemented by LADWP as a complement to the proposed project and will continue as planned whether or not the project is implemented, but it cannot achieve the following project objectives:

- Provide resilience to maintain the reliability of the LADWP electrical power system to help meet peaks in demand that exceed available renewable generation resources and energy storage capacity as well as during infrequent and relatively short-term, but major, interruptions in the primary carbon-free generation and/or transmission system caused by emergency circumstances.
- Establish a generation source that is always available, dispatchable, and local relative to the LADWP service area.
- Provide generation capacity to support grid stability and energy demand in the Scattergood service area, which includes Los Angeles International Airport, Hyperion WRP, and the western districts of the City of Los Angeles.

Therefore, demand response does not represent an alternative to the proposed project.

As discussed in Section 5.6.1 of the Draft EIR, the No Project Alternative, the consideration of which is mandated under CEQA, would remove Units 1 and 2 from service at the end of 2029 without replacement. However, this alternative would result in a significant reduction in energy produced in the Scattergood area and therefore would not meet the project objectives for establishing a resilient, reliable, always available and dispatchable generation source for the LADWP electrical power system local to the Scattergood area. This would lead to critical outages of the electrical system in the area during periods of peak demand or during losses of imported energy under emergency circumstances, directly contrary to project objectives.

Furthermore, the assumption implied in the comment that Units 1 and 2 represent surplus generation capacity at Scattergood simply because their removal from service is mandated by considerations not related to power generation needs as well as the fact that other generation units would remain in operation after their removal is false. As discussed in **Topical Response No. 5 - Project Baseline Environmental Conditions**, based on the imperative nature of power generation from Scattergood to prevent the disruption of the electrical grid in Los Angeles, the shutdown of Units 1 and 2 is predicated not only on the cessation of use of the OTC system but also on the implementation of the proposed project to provide critical generation capacity at Scattergood. Absent the proposed project, the necessity to maintain as much generation capacity at Scattergood as possible would likely require a solution that would enable the continued operations of Units 1 and 2, whether through appeals to further extend the OTC deadline or through the implementation of alternative cooling technologies for the units.

Comment No. P34

Hello, my name is Andrea Vega, and I'm with the organization Food and Water Watch, and I'm also an LADWP ratepayer. The Scattergood Modernization Project is a dangerous and costly project, which is in no way aligned with community demands for real community-driven solutions to our climate crisis or environmental justice principles. Retrofitting our gas plants to burn hydrogen would undoubtedly keep Los Angeles dependent on fossil fuels. This project would further burden ratepayers, continue to pollute our air, and is highly water intensive, and would just push Los Angeles further away from our climate goals. Not only is water needed to produce hydrogen itself, but the process also requires vast quantities for cooling, treatment, and disposal. Scattergood would require 122 million gallons of fresh water by 2045. Now, especially at a time when California is still experiencing drought conditions, Los Angeles would be better off investing in renewable energy generation, which would significantly reduce our water footprint. We're out of time for incremental change and modest emission reductions. We have to do everything we can to stop the climate crisis. But an all-of-the-above strategy won't work. The focus on hydrogen has already distracted from much more important initiatives like utility, debt relief, and grid electrification which can save people money and cut local pollution. If LADWP is truly committed to meeting LA's goal of 100% clean energy by 2035, then LADWP must reject the Scattergood Draft EIR, and instead pursue a grid-based grid-scale battery storage system, which is one of the project's alternatives.

P34-1

P34-2

Comment No. P34

November 20, 2024
Andrea Vega
Food and Water Watch
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Response to Comment No. P34-1

The commenter expresses concerns regarding the expansion of hydrogen production and its high demand for water. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project. The proposed project would not produce hydrogen, result in an onsite water demand to produce hydrogen, or increase safety risks related to hydrogen production. As stated in the Topical Response No. 2 and Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. As such, no additional response is required.

Response to Comment No. P34-2

The commenter requests that LADWP reject the project and focus more on cost-effective initiatives and project alternatives, such as the grid-scale battery storage system, to meet the City's clean energy goal. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, various alternatives to the project were considered, including a grid-scale battery energy storage system (BESS).Though technically feasible, implementation of a grid-scale BESS to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS and would require substantially more real estate. During periods of extreme peak demand, batteries would need to be recharged largely from in-basin generation during overnight time periods (likely from combustion generation sources), which may reduce the lifespan of certain electrical equipment, especially during heatwaves. Typically, reduced overnight loads allow transformers and other equipment to cool, and additional loading from storage charging would reduce cooling opportunities, potentially increasing failure rates and requiring accelerated equipment replacement and associated costs. Therefore, while it may be effective to meet daily peaks in demand that exceed available renewable generation resources, it would not provide adequate energy to maintain system reliability during longer-duration interruptions in the generation and/or transmission system caused by emergency circumstances. Furthermore, energy storage is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. Therefore, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P35

Hi, my name is Benjamin Harris. I'm the senior staff attorney with Los Angeles Waterkeeper. I'm also an LAFWP ratepayer. I live very close to the Scattergood facility. I echo a lot of the comments that were said before. The Scattergood Modernization project to combust natural gas and green hydrogen is simply not the right solution for the future of our region. For climate change, for energy, combustion is outdated practice. There is not enough justification in the EIR to even be considering combustion at this time. And you know, for all the other reasons the commenter said, this project needs to be halted, but the other thing that I really wanted to emphasize, which recent commenters have also talked about, is the fact that there is absolutely no analysis in the EIR about where hydrogen will come from that will be used for combustion at this facility. It is easily putting the cart before the horse to assume that you can modernize this facility, and assume that there will be commercially available hydrogen to burn at the facility without any idea of where that hydrogen is coming from. It is piecemealing, which is a violation of CEQA. This EIR really should be a programmatic EIR to look at modernizing the entire LADWP grid to address the impacts from these facilities that are currently operating on gas combustion. We need better solutions. We need more integrated regional solutions, and we cannot afford to use water to develop hydrogen and then burn it just to create energy. We are in the process of really needing to evaluate our energy system as a whole, and I think the EIR needs to do a better job of taking that regional approach rather than focusing on this facility. I'll also just add quickly. LADWP has had years, if not decades, to prepare for the transition of Scattergood given the upcoming OTC closure deadlines, which have already been extended until 2029. It's time to get this right, and LADWP has not. Thank you very much.

P35-1

P35-2

P35-3

Comment No. P35

November 20, 2024
Benjamin Harris
Los Angeles Waterkeeper
ben@lawaterkeeper.org

Response to Comment No. P35-1

The commenter expresses opposition to the project, critiques combustion as an outdated practice, and states that there is not enough justification for the project to include combustion. The commenter is referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for a detailed discussion regarding the requirement for the proposed project's generation capacity to maintain grid reliability. As discussed therein, several converging factors contribute to the critical nature of the reliability objectives that underlie the proposed project, including:

- Retirement of Scattergood Units 1 & 2, effectively mandated by the once-through cooling (OTC) policy, which will create an energy capacity deficit due to transmission bottlenecks in the West Los Angeles Service Area (Westside).
- Electric-grid reliability needs, with specific risks being accelerated by climate change in the form of heat waves, wildfires, and unprecedented storms.
- Regulatory compliance, as required by the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) standards.

The proposed project would have the capability to deliver firm, dispatchable capacity at a specific location within the LADWP system, the Westside, which is vulnerable to stressed grid conditions due to transmission constraints. Additionally, the Westside service area holds particular importance since it includes both LAX and the Hyperion Water Reclamation Plant (WRP).

In 2021, LADWP published the Local Capacity Technical (LCT) analysis study report. The performance criteria and methodology were coordinated with the California Independent System Operator (CAISO) to use a similar metric as was used as part of CAISO's Local Capacity Studies, which also analyze critical system events in accordance with the NERC Transmission Planning (TPL)-001 reliability standard. The LCT evaluated the relationship between Westside load, transmission capacity constraints, and Scattergood generation. The LCT determined that due to the projected load growth on the Westside, where the aggregate system peak demands for the LADWP service area were between 6,895 megawatts (MW) to 7,239 MW, there would be a generation capacity deficit at Scattergood ranging from 254 MW to 350 MW, depending on available transmission capacity serving the Westside and the forecasted load. Without adequate Scattergood generation, NERC reliability criteria would require planned and controlled customer outages at strategic locations to avoid risk of uncontrolled widespread blackouts.

The proposed project was sized at 346 MW because multiple studies have indicated the need for this additional capacity at Scattergood, assuming the retirement of Units 1 & 2, based on current and future projections of both Westside electricity demand and the transmission capacity serving the Westside. In addition to normal projected growth in demand, there are also numerous large-load interconnection requests to LADWP totaling several hundred megawatts on the Westside. The 346 MW capacity of the proposed project was determined to provide reliability and flexibility under the uncertainty of load growth, unforeseen project delays, and the potential of transmission and generation asset outages.

It is important to note that several transmission projects are either underway or planned to improve the Westside's capacity to import renewable energy. These upgrades are expected to reduce reliance on Scattergood, limiting its operation to specific situations—such as during stressed grid conditions or when renewable resources are unavailable—based on power system reliability needs as outlined in the project objectives (see Section 3.4 of the Draft EIR). The future generation needed from the proposed project depends heavily on several key assumptions, including the advancement of renewable energy deployment, the timely completion of numerous transmission projects, electricity demand, unscheduled generator and transmission outages, and other related factors.

Unfortunately, numerous factors have contributed to delays in multiple transmission projects. The onset of the COVID-19 pandemic brought unexpected challenges throughout supply chains, including widespread factory shutdowns that disrupted equipment manufacturing, shipping, and construction due to limited staffing. As operations gradually resumed, the industry faced a significant backlog of projects and a surge in demand for equipment—demand that remaining manufacturers have struggled to meet. As a result, utilities are now experiencing extended lead times even for standard system components. Additionally, changes in federal administration have introduced new challenges, such as increased tariffs, which have complicated the equipment procurement process and further compounded project delays.

In addition, upgrading transmission capacity is a complex process that involves careful planning and coordination to ensure both safety and reliability. As part of this implementation, certain phases of construction require transmission lines to be de-energized to protect personnel working on or near the infrastructure. Importantly, as a result of the decreased transmission capacity from these planned outages, the need for local generation increases to maintain NERC-required reliability criteria and avoid customer disruptions. Therefore, many combinations of critical system upgrades cannot occur simultaneously without putting Los Angeles residents at risk of power outages. This is an important consideration for long-term planning and may lead to additional delays for necessary transmission projects, increasing the need for the reliability provided by the proposed project.

The impact of natural disaster events is another factor contributing to the need for additional capacity at Scattergood. In 2021, the Electric Power Research Institute (EPRI) conducted studies to evaluate the impact of critical natural disaster events on LADWP's transmission system. The study utilized EPRI's latest techniques and new methodologies to quantify how in-basin generation can support the local grid in events such as earthquakes and wildfires. EPRI found that the scenario with 336 MW of additional in-basin capacity following the scheduled OTC retirements is "able to best respond to the types of extreme events discussed in [the] report and points toward the most resilient transmission plan moving into the future."[24] As an example, the Saddle Ridge Fire sequence of events was simulated, and it was determined that the additional 336 MW of local generation would reduce the likelihood of the system cascading into widespread blackouts.

Additionally, the National Renewable Energy Laboratory (NREL) evaluated potential alternatives to the proposed project, documented in a report dated February 2025.[25] This work was partly motivated by Los Angeles Council Motion (File 23-0039), which required an updated study that compared the proposed project to non-combustion alternatives, including fuel cells, energy

[24] EPRI. 2021. LADWP Climate Assessment and Transmission Resilience Analysis.

[25] NREL. 2025. Scattergood Modernization Project Alternatives: Summary of Findings. Available at: https://www.ladwp.com/sites/default/files/2025-03/Scattergood%20Moderniazation%20Alternative%20Study%20Final.pdf

storage, demand response,[26] and new and upgraded transmission lines. NREL's latest study acts in part as an extension of the Los Angeles 100% Renewable Energy Study (LA100 Study), which had previously identified the need to replace retiring generation capacity at the in-basin generating stations, including Scattergood Units 1 and 2.

The supplemental study considered developments in technologies and changing system conditions that have occurred since the completion of the LA100 Study analysis in late 2020. It re-evaluated the need for dispatchable capacity specifically at Scattergood and compared various technology alternatives, considering their constructability and feasibility by 2030, contribution toward system reliability, cost, siting, and air emissions.

NREL's independent analysis following the LA100 Study confirmed that no fundamental changes to the LADWP power system have altered their conclusion that new, dispatchable capacity is needed to replace the retiring Scattergood Units 1 and 2. Among NREL's findings:

- New dispatchable capacity is needed to replace the retiring OTC units at Scattergood.
- New or upgraded transmission does not appear to be a viable alternative by the 2030 requirement.
- Energy storage durations required to achieve the same level of reliability are at least 10 hours, resulting in a footprint that exceeds the land available at the Scattergood property.
- Fuel cells using 100 percent green hydrogen are unlikely to be a viable alternative to the proposed project by 2030. Fuel cells using hydrogen/natural gas blends may be a technically viable alternative but at a significantly higher cost premium and will face increased technical and operational risk/uncertainty.
- Demand response, as a stand-alone alternative, does not appear to be available in sufficient quantity in the Scattergood service area.
- Combinations can reduce the cost premium of the alternatives but are still likely to be more expensive and do not eliminate significant technology risks.

The NREL Alternatives Report did not identify any feasible alternatives that could meet the objectives of the proposed project. Further, the commenter is referred to **Topical Response No. 4 – Alternatives**. As described therein, though the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR, information and analysis provided in the NREL Alternatives Report support the alternatives analysis in the EIR. As discussed in Topical Response No. 4 – Alternatives, CEQA Guidelines Section 15126.6(c) requires that an EIR identify alternatives that were considered by the lead agency but dismissed from further consideration and briefly explain the reasons underlying the lead agency's determination, which may include factors such as infeasibility, failure to meet the project objectives, and/or inability to avoid or lessen significant environmental impacts. As detailed in Topical Response No. 4 – Alternatives and Section 5.5, Alternatives Considered but Dismissed from Detailed Analysis, of the Draft EIR, alternative in-basin clean energy generation, increasing demand side management programs, expansion of new and upgraded transmission lines, retrofit of Units 1 and/or 2, and developing the proposed project at an alternative location were considered but dismissed from further analysis.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

[26] Demand response refers to the ways utilities or grid operators can harness demand flexibility, often to reduce demand during periods of high grid stress. These programs typically call for participation from demand-side resources.

Response to Comment No. P35-2

The commenter expresses concern that the Draft EIR does not discuss the source of hydrogen, assumes that supply of hydrogen will be commercially available, and is in violation of CEQA due to piecemealing. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. Accordingly, the Draft EIR does not result in piecemealing with regard to green hydrogen infrastructure (including production, delivery, and storage) as a separate environmental review and approval process will occur in the future. No further response is required.

Response to Comment No. P35-3

The commenter states that the project's Draft EIR should be a programmatic EIR and that LADWP should evaluate the entire grid on a regional scale to devise integrated regional solutions.

The project described in the EIR and proposed for consideration by the LADWP Board is limited to Scattergood. A program EIR allows an agency to review in one document a series of actions that can be characterized as one program, including those contemplated in connection with "plans, or other general criteria to govern the conduct of a continuing program..." (CEQA Guidelines, § 15168(a)(1)-(4).) It is up to the lead agency to decide whether to prepare a program EIR for a series of actions, or whether to consider them on a project-by-project basis.

A primary objective of the proposed project is to provide generation capacity to support grid stability and energy demand in the Scattergood service area, which includes LAX, Hyperion WRP, and the western districts of the City of Los Angeles, as discussed in Section 3.4, Project Objectives, of the Draft EIR. This primary objective gives the proposed project independent utility from other contemplated upgrades to the in-basin network system.

LADWP's electricity imports predominantly enter the Los Angeles basin from the north. Three of its four in-basin generating stations are located on the coast in the southern and western boundaries of the service territory. Transmission was built out from these generating stations, forming transmission "cul-de-sacs" that provide dispatchable electricity from the south. Because of potential disruptions to out-of-basin renewable energy sources, Scattergood has been identified as the most immediate and instrumental location in relation to the requirement for firm generation capacity due to the electrification of LAX, the implementation of increased wastewater treatment capabilities at Hyperion WRP, and anticipated growth in demand in the western areas of the City that Scattergood serves, largely caused by electrification (i.e., the conversion of various functions currently powered by the combustion of fossil fuels, including cooking, space heating, water heating, and the transportation sector, to electricity). Thus, the need for upgrades to the proposed project exists regardless of whether other facilities in LADWP's in-basin network are also contemplated for upgrades. Therefore, regardless of whether this project could be considered as part of a broader programmatic EIR, it is appropriately subject to project-level review under CEQA in its own EIR.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P35-4

The commenter states that LADWP has not adequately prepared Scattergood's transition for the upcoming OTC closure deadline. As this comment does not specifically address the adequacy of the Draft EIR, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P36

Hi, my name is Rebecca Franke. I'm representing myself. Thank you for the opportunity to share my concerns about the plans to retrofit the Scattergood power plant to burn hydrogen. There isn't room for additional combustion in power generation, either hydrogen plus methane or hydrogen alone. Gas has to be retired. It isn't a bridge. It is a distraction from clean energy investments, and it is costly. Burning hydrogen generates nitrogen oxide, which will only worsen the level of ozone and smog. And DWP. will have to pay millions in fees for these emissions plus the cost of the infrastructure for producing the hydrogen and the pipelines for transporting it through the communities to supply Scattergood. These costs are magnified if additional gas plants are transitioned. Investing in this archaic and infrastructure would be incompatible with mitigating climate change. There are alternatives of which DWP is knowledgeable, especially involving local energy and battery storage. They should be prioritized. Thank you.

P36-1

P36-2

Comment No. P36

November 20, 2024
Rebecca Franke
rfconsulting@sonic.net

Response to Comment No. P36-1

The commenter expresses concern that power generation still uses combustion and states that gas use and infrastructure should be retired due to its cost and impacts on air quality and climate change. With regard to the commenter's concern regarding cost, as stated in Section 2.0, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

As detailed in Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, the project's impacts on GHG emissions would be less than significant. With regard to air quality impacts, as detailed in Section 4.2, Air Quality, of the Draft EIR, emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 horsepower (hp) to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The commenter also critiques the cost of hydrogen production and transport. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. No further response to this concern is required.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P36-2

The commenter requests that alternatives, including local energy and battery storage, be prioritized. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, various alternatives to the project were considered, including in-basin clean energy generation and grid-scale battery energy storage system (BESS). As this comment does not specifically address the adequacy of the Draft EIR, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P37

My name is Jasmin Vargas. I am a LA resident, LA Department of Water and Power ratepayer on the northeast LA side. I'm calling today because I wanted to voice my opposition to building out this and any in-basin hydrogen gas plant instead of doing what was promised by LADWP, which was shut down all of their in-basin gas plants and transition to real 100% clean energy. I think if there's a lot, this is a very flawed DEIR, and if you even look at it from the point of reliability, it's no guarantee that anything you build on this portion of the land where Scattergood exists will be able to withstand the climate crisis that will unfold, especially due to the emissions that LADWP is at fault for several decades. and have perpetuated by shoring up natural gas as a bridge fuel for our clean energy future, when, in fact, methane is one of the most potent greenhouse gas emissions that there is. And so I don't know what you're going to be doing with the sea levels rise on this part of land that's right off the coast. I don't see the reliability in building a new hydrogen plant that's going to cost us hundreds of millions of dollars close to billions of dollars just so to be taken over by the climate crisis. And I want to also mention just how shameful it is that this utility is using the climate crisis like fires to try and shove this gas plant down our throats. That's disgusting.

P37-1

P37-2

Comment No. P37

November 20, 2024
Jasmin Vargas
jxvargas@gmail.com

Response to Comment No. P37-1

The commenter expresses opposition to the project and in-basin hydrogen gas plants and states that the project and Scattergood will not likely be able to withstand climate crisis impacts such as sea level rise. The commenter expresses concerns regarding GHG emissions, climate change impacts, and the use of natural gas as a bridge fuel. The commenter also states that the Draft EIR is flawed; however, the commenter does not provide evidence for the claims and does not specifically address the adequacy of the Draft EIR. The commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P37-2

The commenter criticizes the large financial cost of the project and expresses doubt about the reliability of the project. The commenter states that LADWP is using the climate crisis to move their projects forward. With regard to the commenter's concerns about cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

In addition, in accordance with CEQA Guidelines, the project's EIR serves as a decision-making tool so the lead agency can evaluate environmental impacts objectively and consider alternatives and mitigation measures before approving or rejecting a project. As part of the EIR process, public comments, such as those of the commenter, are acknowledged for the record and forwarded to the decision-makers for their review and consideration. The outcome of the project will be deliberated by the decision-makers.

Comment No. P38

I belong to a lot of groups. I'm just a resident of Playa del Rey. I'm opposed to the Scattergood proposal. And I'd just like to remind everybody that we live in earthquake country, where we are 150 years overdue for a magnitude 8 earthquake. And according to well-known local seismologist, Lucy Jones, when a magnitude 8 earthquake or another powerful quake will occur, citywide fires have the potential to burn down Los Angeles. So, since it is well known that sudden hydrogen, released from high pressure vessel into air, can be spontaneously ignited without any apparent ignition sources present, is it really such a good idea to add more flammable materials to such an unpredictable high earthquake risk area? Don't we have enough dangerous gas risks with the putrid toxic and very outdated Hyperion plant and the gas storage facility in Playa del Rey, which is already considered the most dangerous in the State? Finally, there should be easily affordable solar panels on every rooftop in LA that wants one, one of the sunniest cities in America, unlike a cloudy country like Germany. Thank you.

P38-1

P38-2

P38-3

Comment No. P38

November 20, 2024
Jackie Eco
maanc_president@yahoo.com

Response to Comment No. P38-1

The commenter expresses opposition to the project and provides information related to the probability of earthquakes and potential for resultant fires in the City of Los Angeles. The commenter questions the safety risks from hydrogen release from a high-pressure vessel and the potential for spontaneous ignition and increased flammable materials in the air. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, while hydrogen is currently used at Scattergood in relatively small quantities in the generation unit cooling process, it would be used in greater quantities as a fuel for the proposed project combustion turbine. The Draft EIR does not address the supply of green hydrogen to Scattergood in terms of the production, delivery, and storage infrastructure, which will be analyzed under a separate environmental document when the necessary information to support an adequate analysis of potential environmental impacts is available. At this time, details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Further, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project impacts related to the on-site hydrogen system during operation were analyzed.

As discussed in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA 2, Hydrogen Technologies Code, and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

Furthermore, as described in the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, the project site is not located within

an Alquist-Priolo Earthquake Fault Zone or other known fault zone.[27,28] The proposed project facilities would be designed and constructed in compliance with the latest version of the City of Los Angeles Building Code and other applicable local, state, and federal codes to minimize impacts related to fault rupture and seismic ground shaking. Furthermore, a site-specific geotechnical analysis for the project site would be prepared prior to construction to provide design recommendations related to seismic criteria. Therefore, impacts related to potential adverse effects from the rupture of a known earthquake fault and impacts related to strong seismic ground shaking would be less than significant.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P38-2

The commenter expresses concern regarding LA Sanitation's Hyperion Water Reclamation Plant and SoCalGas' Playa del Rey storage facility, neither of which are part of the proposed project. As this comment does not specifically address the adequacy of the Draft EIR, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P38-3

The commenter suggests the increased availability of affordable solar panels for developments within the City. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.5.1, Alternative In-Basin Clean Energy Generation of the Draft EIR, LADWP has on-going efforts to increase alternative sources of in-basin distributed clean energy generation, including rooftop solar, through various programs. These programs include LADWP's Solar Incentive Program, Net Energy Metering Program, Utility Built Solar, Community Solar Program, and Solar Rooftops Program, which enable the installation of PV solar systems at City facilities and customers' rooftops throughout the City to help LADWP meet its renewable energy goals and reduce overall GHG emissions. As such, solar panels are already being widely implemented in the City. However, the intermittent and variable nature of local solar generation would not represent an always-available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented, but was determined not to be a viable alternative to the proposed project and was therefore dismissed from further consideration in the Draft EIR. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

[27] California Department of Conservation. 2022. CGS Seismic Hazards Program: Alquist-Priolo Fault Hazard Zones. Available at: https://gis.data.ca.gov/maps/ee92a5f9f4ee4ec5aa731d3245ed9f53/about. Accessed October 2023.

[28] U.S. Geologic Survey. 2022. Quaternary Fault and Fold Database of the United States. Interactive Map. Available at: https://doi.org/10.5066/F7S75FJM. Accessed October 2023.

Comment No. P39

Hi, my name is Amy Fung, and I'm with Climate Brunch. I also work in the City of Los Angeles, and had been an LADWP ratepayer for several years, and I'm here to stand in opposition of the proposed project. Firstly, the LADWP Strategic Long Term Resource Plan SLTRP is still considering a no-combustion scenario. And so, before further consideration of the Scattergood modernization project moves forward. The SLTRP Advisory group should be able to evaluate the SLTRP. It seems disappointingly premature to be making this public comment today. I would also argue that there is insufficient consideration for how the project will affect the life outcomes of frontline communities. For instance, the exceedance of NO_x during construction is noted as significant and unavoidable. This is unacceptable. Hydrogen burned for electricity generation can produce 6 times more nitrous oxides than natural gas, and nitrous oxides are also harmful pollutants that can cause respiratory illness and contribute to the formation of smog. The SB 535 disadvantaged communities map shows that there are many environmental justice EJ communities surrounding this Scattergood site. Has there been any consideration for how the presence of a site that burns hydrogen and extremely flammable gas will affect the inherent viability of the local communities to adequately insure homes? Would the modernization of Scattergood for hydrogen, burning further exacerbate the disproportionate income inequalities of frontline communities that have been redlined to receive the brunt of inequities? Once again, I am here to stand in opposition of the proposed project. Please shut down Scattergood for good.

P39-1

P39-2

Comment No. P39

November 20, 2024
Amy Fung
Climate Brunch
amy.lan.fung@gmail.com

Response to Comment No. P39-1

The commenter expresses opposition to the project and states that the LADWP Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) considers a no-combustion scenario and that the SLTRP Advisory group should be able to evaluate the SLTRP before the project moves forward. As described in Chapter 3, Project Description, of the Draft EIR, the proposed project has been identified as an integral component of SLTRP,[29] which through involvement with the SLTRP Advisory Group comprised of over 45 stakeholders representing neighborhood councils, academia, community organizations, existing customers, and city and local government, establishes a roadmap for reliable and sustainable electrical power for the City, while also providing the strategy to achieve a carbon-free energy system, relying primarily on renewable solar, wind, and geothermal generation resources as well as large-capacity energy storage facilities. This comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P39-2

The commenter reiterates opposition to the project and requests that Scattergood be shut down. The commenter expresses concerns regarding the health impacts on environmental justice communities, the project's significant and unavoidable air quality impacts, and fire risks related to hydrogen.

With regard to environmental justice and health impacts, the commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. Notwithstanding, as detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that project construction and operation would not expose sensitive receptors to substantial pollutant concentrations. As such, the project would not result in disproportionate impacts to environmental justice communities.

With regard to air quality, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR. As assessed therein, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level.

[29] Los Angeles Department of Water and Power. 2022. 2022 Power Strategic Long-Term Resource Plan. Available at: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB794970&RevisionSelectionMethod=LatestReleased

Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

With regard to hydrogen-related fire risks, the commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As detailed therein, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P40

I'm here representing the Green Hydrogen Coalition. We're an educational nonprofit whose mission is to transition society away from fossil fuels and achieve deep economy-wide decarbonization. I really appreciate the opportunity to comment, and also everyone else's comments. I want to start by pointing out what we all share, and that is a desire to move away from fossil fuels, and in so doing improve community health and improve our planet. We strongly support this project. I'd like to respond to some of the comments that I've made thus far, and really encourage everyone to consider that shared goal and to keep an open mind. My first point is that solar and batteries, you know, it was raised as an alternative. I started my career in energy and rooftop solar many years ago, and then I subsequently founded the California Energy Storage Alliance. I love solar and battery storage. I just wanted to share and weigh in that battery storage and solar alone cannot get us to 100% renewables. Batteries are great for intraday, but they are not suitable for multi-day requirements that are now being driven by heat waves and the climate crisis that we're facing. And a multi-day duration battery just doesn't commercially exist at the scale of Scattergood, and it would not fit in the footprint available. None of us can afford to have rolling blackouts, and NREL's study made it clear that in-basin power is needed to maintain reliability and to keep the lights on. If Scattergood isn't converted to renewable hydrogen, it will continue to combust natural gas, and that's why we're all here—to transition away from fossil fuels. I realize I'm running out of time, and had so many comments. The last thing I wanted to say in my 8 seconds is that hydrogen is starting to be produced at scale, renewable hydrogen. Traditional hydrogen's been around for a really, really long time, like decades, and that's why we have existing safety standards. And I would say in summary, the use of green hydrogen for clean, firm power in power plants enables us to achieve 100% renewable energy. It's particularly important to deep decarbonization.

P40-1

Comment No. P40

November 20, 2024
Janice Lin
Green Hydrogen Coalition
jlin@ghcoalition.org

Response to Comment No. P40-1

The commenter expresses support for the proposed project and states that the use of green hydrogen for clean, firm power in power plants would allow for decarbonization and the achievement of 100 percent renewable energy. The commenter notes that solar and battery storage does not commercially exist at the scale required to offset the amount of energy produced by the Scattergood Generating Station. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P41

Good evening. My name is Michael Fujimori. I'm on the Executive Committee from the Sierra Club, AMG Group. And I just want to say it's very concerning to me that the DWP. is considering to retrofit the Scattergood station to burn hydrogen. As we know, hydrogen is highly volatile, very dangerous, and is 24 times as flammable as natural gas. It's also not cost effective. So I'm asking them to please reject this Draft EIR and to pursue alternatives such as the implementation of a grid-scale battery energy storage system. SoCalGas, which operates underground facilities under the Ballona Wetlands, wants to expand their operations by supplying the methane gas needed to make hydrogen when we all know that SoCalGas was responsible for the Aliso Canyon disaster. And this is just another disaster waiting to happen if we allow these facilities to expand and continue operations and this horrible plan becomes a reality. So I'm asking the DWP to instead focus on alternatives to fossil fuel because this proposed project using methane is just too risky and dangerous. And one last thing I really have. I really hope that the DWP is taking note that the public calling in tonight is like 99% in agreement that this is just a bad idea, so please listen to your customers. Thank you.

P41-1

P41-2

P41-3

P41-4

Comment No. P41

November 20, 2024
Michael Fujimori
Sierra Club, AMG Group
(310) 600-8916

Response to Comment No. P41-1

The commenter expresses opposition to the project and concerns regarding volatility, flammability, and high cost of hydrogen. The commenter requests that the Draft EIR be rejected and that alternatives, such as a grid-scale BESS, be considered instead.

With regard to hydrogen-related hazards, the commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As detailed therein, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

With regard to cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

With regard to alternatives, the commenter is referred to **Topical Response No. 4 – Alternatives** and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR. As detailed therein, a grid-scale BESS alternative was evaluated under Alternative 2. While technically feasible, the BESS would not be anticipated to provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP,

now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P41-2

The commenter states that SoCalGas, which operates underground facilities under the Ballona Wetlands, wants to expand their operations by supplying the methane gas needed to make hydrogen. The commenter expresses concern based on SoCalGas' role in the Aliso Canyon disaster. However, the commenter does not provide evidence for these claims and does not specifically address the adequacy of the Draft EIR. SoCalGas, a natural gas distribution utility, is a separate entity from LADWP, which is a municipal water and power utility and the lead agency for the proposed project. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P41-3

The commenter recommends focusing on alternatives and expresses safety concerns similar to those discussed in Comment No. P41-1, and is referred to **Response to Comment No. P41-1** above.

Response to Comment No. P41-4

The commenter states that LADWP should listen to the public's concerns about the project. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P42

My name is Samantha Rangel. I am a youth justice leader with Communities for a Better Environment in Wilmington, California. I am here today because I oppose the Los Angeles Department of Water and Power's proposed plan to retrofit to gas Scattergood Generating Station to utilize a blend of hydrogen and methane at the power plant, because considering the fact that hydrogen is explosive and could easily leak, it will come to my community where there's already a lot of pollution from oil refineries, it will make the atmosphere worse, pollute the air and lead to health complications for many people. As someone who struggles with breathing issues, feel suffocated at times, and suffers from eczema, this will make matters worse for me and for many people within the community. I worry for people with illnesses such as my grandmother and uncle who suffer from diabetes, my classmates who suffer from asthma, for the people who are poor, don't have resources to afford medication, and suffer from illnesses, and how it would affect them, how it would affect the developing children, and in the scenario of how LADWP will put workers at risk to respiratory issues from the exposure of methane and hydrogen if this occurs. Therefore, I urge you to take this into consideration and think about how a hydrogen plant will affect the environment and the community. Thank you for your time. P42-1

Comment No. P42

November 20, 2024
Samantha Rangel
Communities for a Better Environment
samantharangel1507@gmail.com

Response to Comment No. P42-1

The commenter expresses opposition to the project due to concerns related to hydrogen safety, air pollution, and health impacts.

The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, through compliance with the regulatory requirements of National Fire Protection Association 2 and American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), as detailed in the Draft EIR, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

With regard to the commenter's concern about health impacts, as detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that impacts would be less than significant. As also assessed therein, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P43

Hello, this is Laura Rosenberger Haider, a member of Sierra Club. And well, first, the question: What will the green hydrogen be produced from? Like is it biofuels or dairy methane? Like that releases co-pollutants, like ammonia and nitric oxide, and $PM_{2.5}$,and rarely achieve over 90% capture of cow burps. I mean, they're rarely achieved, and then the methane is really captured. And some VOCs, also some VOCS are endocrine disruptors and carcinogenic, and VOCs contribute significantly to ozone linked to asthma. And the Los Angeles basin is an extreme nonattainment for ozone. Initially, during the construction, NO_x would be released and $PM_{2.5}$, and will not meet our $PM_{2.5}$standards and ozone standards. And when hydrogen is mixed with methane, more NO_x is generated than by either alone. Adding just a little more NO_x could make the cumulative impact of all pollutants unbearable. And don't rely on natural gas that leaked from Aliso Canyon gas storage, and Ventura compressor station, and from a hundred oil wells in California had been leaking. Inspectors found them leaking in the inspection report. Instead, promote rooftop solar with battery storage in people's homes. And there is not a cost shift, according to the McCann's report if you consider the benefits to all electric ratepayers. Projects failed to reach their climate goals, their carbon capture goals. They failed right? Thanks.

P43-1

P43-2

Comment No. P43

November 20, 2024
Laura Rosenberger Haider
Sierra Club
(814) 590-5528

Response to Comment No. P43-1

The commenter expresses concern regarding the green hydrogen production, health impacts, and air quality impacts, including cumulative air quality impacts.

With regard to green hydrogen production, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project.

With regard to health impacts, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

With regard to air quality impacts, as assessed in the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. With regard to the commenter's concern about cumulative air quality impacts, Section 4.2.7 of the Draft EIR also noted that project emissions during commissioning and operations (related to Vendor B) would be cumulatively considerable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P43-2

The commenter expresses opposition to the use of natural gas and proposes residential rooftop solar and battery storage as an alternative. The commenter is referred to **Topical Response No. 4 – Alternatives** and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR. As detailed therein, alternative in-basin clean energy generation is a part of the LADWP Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and is already being implemented by LADWP, including multiple local solar photovoltaic programs to generate carbon-free, renewable energy for its power grid. Though local distributed renewable generation can be relatively rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always-available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented. Based on the above, the alternative was dismissed from further consideration in the Draft EIR. The NREL Alternatives Report further affirms that adding such variable renewable generation resources cannot meet the reliability requirements of the proposed project (e.g., provide electricity for multiple hours in a row [at least 10 hours] and for multiple days in a row during late summer afternoons and into the evening). The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P44

Buenas tardes/buenas noches, mi nombre es Esther Hernández, soy de la ciudad de Wilmington y soy afiliada de justicia ambiental. yo estoy en contra de el procedimiento que va ser, del proyecto de la planta de energía Scattergood. Estoy en contra porque nosotros acá donde vivimos en Wilmington somos una comunidad de bajos recursos. Estamos muy muy muy contaminados. Estamos en medio de las refinerías, nuestros hijos tienen asma, nuestros padres están diabéticos. Entonces queremos que piensen un poco en nosotros en la gente de bajos recursos. Yo sé que ocupamos también la luz, ocupamos también los servicios que dan ellos, pero por favor pónganse a pensar un poquito en la gente de bajos recursos. Nada mas la vida es hacer dinero hacer dinero. Piensen por favor un poquito en nosotros. Gracias.

[English Translation]: Good afternoon/good evening, my name is Esther Hernández, I am from the City of Wilmington and I am affiliated with environmental justice. I am against the procedure that is moving forward, the Scattergood power plant project. I am against it because here where we live in Wilmington, we are a low-income community. We are very, very, very polluted. We are in the middle of the refineries, our children have asthma, our parents are diabetic. So we want you to think a little about us, the low-income people. I know that we also need electricity, we also need the services that they provide, but please think a little about the low-income people. Life is not just about making money. Please think a little about us. Thank you. P44-1

Comment No. P44

November 20, 2024
Esther Hernández
hernandezesther80@hotmail.com

Response to Comment No. P44-1

The commenter expresses opposition to the project due environmental justice concerns.

The commenter states that Wilmington, where the commenter resides, is already a polluted, low-income community in the middle of refineries. It is assumed that the commenter is expressing concerns about refineries in the South Bay and Harbor Generating Station, which is a LADWP generating station located in Wilmington. However, the existing refineries and the Harbor Generating Station are not included as part of the proposed project. In addition, the commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, the CEQA statute does not include analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

Furthermore, as also assessed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a

Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P45

Buenas noches, mi nombre es María Montes, estoy con la comunidad para mejorar el medio ambiente y yo soy cliente del departamento de agua y poder de Los Ángeles. Vivo en la ciudad de San Pedro y yo me opongo a este proyecto de modernización de Scattergood. Pues mi comunidad, estamos llenas de industrias que afectan nuestra salud, y muchos contaminantes invisibles los cuales no vemos, pero sí sentimos físicamente como es el asma, el cáncer, eczema y otras cosas. El hidrógeno aún produce emisiones que pueden amenazar a nuestra clima y a nuestras comunidades. Estas plantas utilizan agua, acabamos de pasar una sequía y vamos a utilizar nuestro preciado líquidos en plantas que esto es muy preocupante y nos costaría más que la energía solar. También nuestras comunidades de bajo recursos, somos siempre las más afectadas y las comunidades ricas allá ni les hacen nada, ellos siempre no tienen esos problemas de contaminación. Ustedes dicen que serán mínimas lo que va a pasar que son mínimo, pero eso es algo y ese algo es peligroso, y eso es la diferencia que nos afectan. Por favor tomen en cuenta nuestra comunidad que estamos ya muy dañada para que sigamos dañándola más. Les pido por favor que se nos tomen en cuenta nuestras opiniones, puesto la mayoría, creo que tenemos la razón de qué nosotros somos los que vivimos en aquí, y sabemos lo que está pasando. Mucha gente que no vive aquí no tiene ni idea lo que lo que es vivir en esta situación verdad entonces les pido por favor que tomen en cuenta nuestras opiniones y les agradezco mucho por su tiempo y que nos escuchen. Por favor tómenos en cuenta. Muchas gracias y buenas noches.

[English Translation]: Good evening, my name is María Montes, I am with Communities for a Better Environment and I am a client of the Los Angeles Department of Water and Power. I live in the City of San Pedro and I oppose this Scattergood Modernization Project. My community is full of industries that affect our health, and many invisible pollutants that we do not see, but we do feel physically such as asthma, cancer, eczema and other things. Hydrogen still produces emissions that can threaten our climate and our communities. These plants use water, we just went through a drought and we are going to use our precious liquids in plants, that is very concerning and would cost us more than solar energy. Also our low-income communities—we are always the most affected, and the rich communities are not impacted, they don't have these contamination problems. You say that what is going to happen will be something minimal, but even that something is dangerous, and that is the difference, that it affects us. Please take into account our community that is already very damaged so that we don't continue damaging it more. I ask that you please take our opinions into account, since most of us, I think that we are right and we are the ones who live here, and we know what is happening. Many people who do not live here have no idea what it is like to live in this situation, right, so I ask you please to take into account our opinions and I thank you very much for your time and for listening to us. Please take us into account. Thank you very much and good night.

P45-1

P45-2

P45-3

Comment No. P45

November 20, 2024
María Montes
Communities for a Better Environment
mariamontes1223@yahoo.com
(310) 938-8813

Response to Comment No. P45-1

The commenter expresses opposition to the project based on health, air quality, and GHG/climate change impacts. With regard to health impacts, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

With regard to air quality impacts, as assessed in the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

With regard to GHG, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, which details that the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P45-2

The commenter expresses concern regarding droughts and water demand associated with hydrogen. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Regarding potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis. As such, the proposed project would not result in an onsite water demand to produce hydrogen. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P45-2

The commenter states that low-income communities are the most affected and susceptible to potential dangerous hazards. The commenter asks that people's voices and concerns be heard and considered. As discussed in **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the HRAs that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. Additionally, as discussed in **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. With regard to other aspects of safety, the commenter is referred to the Initial Study of the project (Appendix A of the Draft EIR) and

Chapter 4, Environmental Impact Analysis, of the Draft EIR, which concluded that no impacts would occur, impacts would be less than significant, or less than significant with mitigation for safety-specific topics discussed under the following CEQA issues: geology and soils, hazards and hazardous materials, hydrology and water quality, transportation, and wildfire.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P46

My name is Kathy Knight, and I'm with the Ballona Ecosystem Education Project, and I've been, we've been, volunteering for 30 years to protect this very rare wetland on the coast of California. 90 about 95% of our coastal wetlands in California have been destroyed. And it's very important what people are saying to protect the land, the animals in, you know, that live out there. And we don't need more construction and more things like that going on and anything that would hurt the quality of the ecosystem there. And to use hydrogen on this experimental and dangerous scheme, they still need to use 70% fossil gas methane that is transported via pipeline to Playa del Rey from places like Oklahoma, Texas, and Utah. Methane is now understood by scientists to be one of the biggest causes of climate change impacts. And another reason we need to respect this land is that Ballona is a sacred site of the Tongva people, who already were taken off their land hundreds of years ago, and they lived there for thousands of years and took beautiful, wonderful care of this ecosystem. So it was called Saangna, and we just need to, we need to respect this land and treat it very carefully, and not cause any more problems on keeping it healthy. Thank you very much.

P46-1

P46-2

P46-3

Comment No. P46

November 20, 2024
Kathy Knight
Ballona Ecosystem Education Project
kathyknight66@gmail.com

Response to Comment No. P46-1

The commenter expresses concern about the Ballona Wetlands and ecosystem. While the comment does not specifically address the adequacy of the Draft EIR, the commenter is referred to biological resources analyses in the Initial Study of the project (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR. As discussed therein, a Biological Resources Assessment was prepared for the proposed project, which determined the potential for special-status species to occur on or within the general vicinity of Scattergood. The assessment found that based on a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, only the El Segundo blue butterfly is expected to occur in the study area. However, based on the results of the conducted field survey, no suitable habitat for the El Segundo blue butterfly was observed that would be impacted by the proposed project footprint. As a known ESB population occurs within close proximity to Scattergood, an ESB habitat assessment was performed. It should be noted that the ESB is an obligate of its host plant seacliff buckwheat (*Eriogonum parviflorum*), which is a perennial shrub and detectable year-round. No seacliff buckwheat (i.e., ESB habitat) was observed at any location in the northern parcel of Scattergood. The southern parcel of Scattergood, located directly west of the Chevron El Segundo Refinery habitat preserve, consists of gravel-paved areas and soil stockpiles, and no coast buckwheat (i.e., ESB habitat) was observed there either. As such, the project's Biological Resources Assessment demonstrated the absence of the host plant seacliff buckwheat within the survey area. Additionally, ESB is known to be a poor disperser and to stay in close proximity to the host plant. Nonetheless, as discussed in **Response to Comment No. A1-3**, incidental impacts to El Segundo blue butterfly can be avoided with implementation of the CDFW's recommended mitigation measure, which includes two pre-project surveys to be conducted within one week prior to initiation of construction activities. Accordingly, this mitigation measure will be implemented for the project and is incorporated as Mitigation Measure MM-BIO-2 in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR.

With regard to birds, as described in Chapter 4, Environmental Impact Analysis, of the Draft EIR, although suitable nesting habitat for various year-round and seasonal bird species occur within the survey area, no active nests or birds displaying overt nesting behavior were observed during the field survey of Scattergood. No trees are located within the footprint of the proposed project facilities; therefore, no trees would be removed for the project, and no direct impacts would occur. Indirect impacts to nesting birds within the survey area could occur as a result of noise, increased human presence, and vibrations resulting from construction activities. Disturbances related to construction could result in increased nestling mortality due to nest abandonment or decreased feeding frequency. Trees suitable for nesting are not generally located adjacent to areas of Scattergood that would be subject to construction activity. Nonetheless, because indirect impacts to nesting birds could occur, nesting bird surveys and protocol would be conducted during project construction pursuant to Mitigation Measure MM-BIO-1 to ensure indirect impacts to nesting birds would be less than significant.

Moreover, no impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area.

The proposed project would construct a CCGS on approximately 3 acres of the fully developed industrial site and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands, which is located approximately 3 miles north of the Scattergood property.

No further comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P46-2

The commenter states that using hydrogen would be experimental and dangerous and continuing to use methane affects climate change. While the comment does not specifically address the adequacy of the Draft EIR, it should be noted that green hydrogen has been utilized at scale. The U.S. Energy Information Administration reports that natural gas power plant operators across the U.S. are upgrading existing turbines to use a blend of natural gas and hydrogen, testing fuel blends at existing power plants, and constructing new combined cycle generating systems ranging from 74 MW up to 1,158 MW.[30] As discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. With regard to climate change, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P46-3

The commenter states that Ballona is a sacred site for the Tongva people and should be respected. While the comment does not specifically address the adequacy of the Draft EIR, it should be noted the proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. Additionally, tribal cultural resources were addressed in the Draft EIR, and consultation with Native American tribal representatives pursuant to Assembly Bill (AB) 52 occurred for the project. As detailed in Section 4.6, Tribal Cultural Resources, of the Draft EIR, no historical resources currently listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources were identified within the project site. In addition, ethnographic research does not indicate any villages or named places within or near the project site. Therefore, the proposed project would not result in a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in a state or local register of historical resources, and no related impact would occur. In addition, as discussed in the Draft EIR, no tribal cultural resources, including sites, places, landscapes, or objects, were identified within the project site. This conclusion was based on a Sacred Lands File search conducted by the Native American Heritage Commission, archival research, a field survey of the project site and surrounding area, and consultation with Native American tribal representatives pursuant to AB 52. LADWP consulted with two tribes that requested consultation on the proposed project, the Gabrielino Tongva Indians of California Tribe and Gabrieleno Band of Mission Indians - Kizh Nation. Since

[30] U.S. Energy Information Administration. 2024. In-Brief Analysis: U.S. electric power sector explores hydrogen cofiring at natural gas-fired plants. Available at: https://www.eia.gov/todayinenergy/detail.php?id=63084#:~:text=Power%20plants%20under%20construction,cofire%20up%20to%2030%25%20hydrogen. Accessed September 2025.

no specific tribal cultural resources have been identified within the project site, including through AB 52 consultation, because of the aeolian sand dune formation that previously occupied the project site, and due to substantial previous subsurface disturbance within all areas proposed for project construction, the potential for the existence of tribal cultural resources is considered very low. Nonetheless, during the construction of the proposed project, unknown subsurface archaeological resources, including tribal cultural resources, could potentially be encountered during ground-disturbing activities. As such, because the potential exists for unknown buried archaeological resources, Mitigation Measure MM-TCR-1 (Cultural Resources Awareness Training), shall be implemented, as acknowledged by the commenter. Furthermore, the Draft EIR also addresses inadvertent discovery of archaeological resources. Specifically, in the event previously unknown archaeological resources are encountered during construction activities, the proposed project would be subject to California PRC Section 21083.2(i), the provisions of which include immediately halting construction work in the vicinity of the find and LADWP retaining a qualified archaeologist meeting Secretary of Interior standards to evaluate the significance of and determine appropriate treatment for the resource in accordance with the provisions of CEQA Guidelines Section 15064.5 and the National Historic Preservation Act. If the resource is determined to be potentially of Native American in origin, MM-TCR-2 (Inadvertent Discovery of a Tribal Cultural Resource) would be required, which includes further consultation with tribes and resource evaluation and treatment. Therefore, impacts to Tribal Cultural Resources have been considered and would be less than significant with incorporation of the mitigation measures described above. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P47

Oh, great! Finally, thank you for trying earlier to reach me. My name is Robert Roy van de Hoek, and I'm an environmental scientist and educator with the Ballona Wetlands Institute and Defend Ballona Wetlands, and I would like to say that Alternative 1 is the choice that needs to be chosen. Your summary stated that the project would not be built, and that would be retired in 2029, and that there would be a loss of generation, and I think most of the comments, probably a hundred people today, are actually saying they want Alternative 1. What I'd like to share with you is the vision of what would happen to the Scattergood plant. If it's retired in 2029. It is a sand dune habitat. It's not wetland, but it is sand dune habitat, and could easily be genuinely restored and recovered with endangered species and common species. And, for example, the El Segundo blue butterfly occurs just north of the Scattergood plant on sand dune at the LA Airport and just to the south at the Chevron refinery. But the entire Scattergood plant could be really excellent sand dune habitat by restoring the vegetation and the flora there. And that would also include using native ecology and bringing in using historical ecology studies, and that was not adequately discussed in Alternative 1, and the report is very short, and shifting baselines are involved, and that means that in the 1770s and the 1930s and 1970s, we have different time periods as we lost native species, including California condor, rare birds, rare mammals, rare butterflies, and approximately 1,700 species in the sand dune and the adjoining wetlands to the north. And we can have a vision here to bring back this nature on this site, and it would work, and it requires doing a biodiversity inclusion, which is part of an LA City mandate to do. And we have overindustrialized this part of the coast. Thank you.

P47-1

Comment No. P47

November 20, 2024
Robert Roy van de Hoek
Ballona Wetlands Institute; Defend Ballona Wetlands
robertvandehoek@yahoo.com

Response to Comment No. P47-1

The commenter expresses support for Alternative 1 – No Project and states that the project site's sand dune habitat could easily be restored with vegetation and the flora and recovered with endangered species and common species. The commenter states that the Draft EIR's assessment of Alternative 1 did not include review of native and historical ecology studies and species of different time periods. The commenter states that nature can be returned to the project site, citing a "biodiversity inclusion, which is part of an LA City mandate." Although not clearly stated, it is assumed that the commenter is referring to the proposed City of Los Angeles Wildlife Ordinance. The draft ordinance was ultimately reviewed by the City Attorney's office and transmitted to the City Council for consideration in November 2024.[31] Based on the draft ordinance, the project site and Scattergood facility are not located within the proposed wildlife resource or resource buffer areas.[32] Notwithstanding, it should be noted that the ordinance has not been approved, and the approved Annual Budget for Fiscal Year 2025-2026 eliminated funding for the Wildlife District Ordinance unit.[33]

Furthermore, the commenter is referred to CEQA Guidelines Section 15126.6(e), which states:

> *(1) The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (see Section 15125).*
>
> *(2) The "no project" analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services…*

Accordingly, the commenter's vision for a restored and recovered sand dune habitat within the project site would not fall under the conditions of the specific alternative of "no project" as described per CEQA Guidelines Section 15126.6(e). There is no proposal under any alternative to remove the entirety of the Scattergood Generation Station, the majority of which would remain regardless of the proposed project. Therefore, sand dune restoration would not be possible. Furthermore, such a proposal is not an alternative to the project but a wholly separate action with

[31] Los Angeles City Planning. Wildlife Ordinance. Available at: https://planning.lacity.gov/plans-policies/wildlife-pilot-study. Accessed July 2025.

[32] Los Angeles City Planning. Wildlife Ordinance. Draft Wildlife Resources (interactive mapping). Available at: https://experience.arcgis.com/experience/779e7266be1d40298035cb0394a58f63. Accessed July 2025.

[33] Los Angeles City Planning. Quarterly Newsletter. Q2 2025. Available at: https://myemail.constantcontact.com/Quarterly-Newsletter---Q2-2025.html?soid=1129936419697&aid=1x478DETsj8. Accessed July 2025.

its own objectives. Furthermore, with regard to the selection of alternatives, the commenter is referred to **Topical Response No. 4 – Alternatives** as well as CEQA Guidelines Section 15126.6.

As described in Topical Response No. 4, the Draft EIR adequately selected and evaluated a range of reasonable alternatives, and the commenter's concerns do not identify any information that meets any of the criteria for revisions to or recirculation of the Draft EIR. No further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P48

Gracias por el espacio mi nombre es Dulce, soy miembro de CBE de comunidades para un medio ambiente mejor. Tengo más de 35 años viviendo en la comunidad de Los Ángeles, soy cliente de LADWP, estoy aquí para oponerme firmemente al proyecto de modernización de Scattergood y expresar mis preocupaciones con el informe de impacto ambiental. Los Ángeles ya supera la calidad de aire contaminado y ya tenemos muchos problemas de salud. Mi comunidad y mi familia ha estado impactada mente fuertemente con la salud, mi hijo y mi nieta han sido diagnosticados con eczema desde que nacieron y problemas respiratorios y estoy preocupada como eso va a empeorar la salud de la comunidad y de mi familia, y no está claro como estas facturas van a subir a nosotros los clientes de LADWP. La salud no es un privilegio, es un derecho algo que Scattergood no está respetando, la vida ni la salud pública, así que exijo que respeten ese derecho que tenemos la comunidad de vivir en de calidad de salud pública una calidad bien, así que por favor no le den esos permisos de dañar a la salud, que no piensen en el dinero, denle prioridad a la salud pública, a la vida y a la salud pública. Gracias.

[English Translation]: Thank you for the space, my name is Dulce, I am a member of CBE – Communities for a Better Environment. I have lived in the Los Angeles community for over 35 years, I am a customer of LADWP, I am here to strongly oppose the Scattergood Modernization Project and to express my concerns with the Environmental Impact Report. Los Angeles is already exceedingly polluted in air quality and we already have many health problems. My community and my family's health have been greatly impacted, my son and granddaughter have been diagnosed with eczema since birth and respiratory problems and I am worried how this is going to worsen the health of the community and my family, and it is not clear how these bills are going to go up for us, LADWP customers. Health is not a privilege, it is a right, something that Scattergood is not respecting—life or public health. So I demand that you respect the right that we have as a community to live in quality public health, a good quality, so please do not give them permission to harm our health, do not think about money, give priority to public health, to life and public health. Thank you. P48-1

Comment No. P48

November 20, 2024
Dulce
Communities for a Better Environment
dulcealtamiranos@yahoo.co.uk

Response to Comment No. P48-1

The commenter expresses opposition to the project and EIR and is concerned that the project will worsen the air quality and health of their community and family. The commenter asks that public health be prioritized.

The commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk indexes (cancer risk and acute and chronic hazard indexes) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

With regard to air quality impacts during construction, as detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P49

Martin, Jazmin

From: Nin Saucedo <ninsaucedo@gmail.com>
Sent: Wednesday, November 20, 2024 9:09 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Opposed for true climate resilience

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Thank you, my name is Anna Saucedo, and I'm here today with CBE. I'm deeply concerned as a resident of Los Angeles, and someone committed to the health and future of our communities.

I strongly oppose this project as it is not only a step backward for environmental justice but it also undermines the principles of true resilience that our city should prioritize.

If resilience is the goal, then we must protect our most vulnerable communities, address systemic inequities, and advance solutions that do not come at the expense of public health or our environment. This project fails to meet those standards, these are just two reasons why: P49-1

•

This project will cause additional harm to environmental justice communities. The Scattergood plant is located near communities that already experience disproportionate pollution and health burdens.

•

Transitioning to hydrogen builds on harmful gas infrastructure. Gas plants like Scattergood have historically caused significant harm to frontline communities. Transitioning to hydrogen merely extends this legacy, delaying the long-overdue retirement of LADWP's gas plants and perpetuating reliance on a system that has already failed to equitably serve Angelenos.

True resilience requires investing in solutions that move us away from outdated, polluting technologies and toward clean, renewable, and community-centered alternatives. Solar power, battery storage, energy efficiency, and demand response technologies are the resilient solutions we need to provide firm capacity without compromising public health or perpetuating harm to vulnerable communities. P49-2

I urge you to reject this Draft EIR in order to prioritize equity, sustainability, and true resilience for Angelenos.

Thank you for your time and attention.

Comment No. P49

November 20, 2024
Anna Saucedo
Communities for a Better Environment
ninsaucedo@gmail.com

Response to Comment No. P49-1

The commenter introduces themselves as part of the Communities for a Better Environment organization. The commenter expresses opposition to the project, stating the project does not support environmental justice and resilience goals, protect vulnerable communities, or address systemic inequities. The commenter asserts the project will harm environmental justice communities that experience disproportionate pollution and health issues, primarily due to the transition to hydrogen that involves natural gas infrastructure. The commenter is referred to **Topical Response No. 3 – Environmental Justice**. As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P49-2

The commenter asserts that clean and renewable energy solutions would provide energy capacity without compromising public health. The commenter reiterates their opposition to the Draft EIR. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein, alternative in-basin clean energy generation, increasing demand side management programs, expansion of new and upgraded transmission lines to import renewable energy resources, and battery energy storage systems were considered in the Draft EIR. Though local distributed renewable generation can be relatively rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Although increasing demand side management programs including increasing energy efficiency to reduce total energy consumption and demand response to reduce peak demand for energy would reduce GHG emissions, this alternative would not supply a firm generation capacity in the Los Angeles basin or help maintain a reliable electrical power system to meet peaks in demand or major interruptions caused by emergency circumstances because

such programs target basic demand reduction and rely on customer behavior. Further, while transmission capacity enables LADWP to deliver renewable energy to its end-users, it does not address LADWP's generation needs to meet peaks in demand or interruptions in the delivery of out-of-basin renewable energy. A grid-scale BESS would not be anticipated to provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate. However, all of these alternatives are complementary to the proposed project and will continue as planned or currently implemented, whether or not the project is implemented. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P50

Martin, Jazmin

From: Jackie <maanc_president@yahoo.com>
Sent: Wednesday, November 20, 2024 9:43 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Proposal

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Hello,

As a resident of Playa Del Rey, I am opposed to the Scattergood Proposal.

We live in Earthquake Country – where we are 150 years OVERDUE for a magnitude 8 earthquake. According to reputable, well-known local Seismologist Lucy Jones, WHEN a magnitude 8 earthquake or another powerful quake WILL occur: "City-wide fires have the potential to burn down Los Angeles." P50-1

So, since it is well-known that sudden hydrogen release from high-pressure vessel into air can be spontaneously ignited without any apparent ignition sources present, etc, is it really such a good idea to add MORE flammable materials to an unpredictable high earthquake risk area? P50-2

Don't we have enough DANGEROUS gas risks with the putrid, toxic and very-outdated Hyperion Plant, and the gas storage facility in Playa Del Rey which is already considered the most dangerous in the state! P50-3

Finally, there should be easily affordable solar panels on every rooftop in LA, one of the Sunniest - Cities - in - America, unlike a cloudy country like Germany.

P50-4

Thank you.
Sincerely,
Jackie Eco

Comment No. P50

November 20, 2024
Jackie Eco
maanc_president@yahoo.com

Response to Comment No. P50-1

The commenter expresses opposition to the project and provides information related to the probability of earthquakes and potential for resultant fires in the City of Los Angeles. This comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. P50-2

The commenter questions the safety risks from hydrogen release from a high-pressure vessel and the potential for spontaneous ignition and increased flammable materials in the air. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, while hydrogen is currently used at Scattergood in relatively small quantities in the generation unit cooling process, it would be used in greater quantities as a fuel for the proposed project combustion turbine. The Draft EIR does not address the supply of green hydrogen to Scattergood in terms of the production, delivery, and storage infrastructure, which will be analyzed under a separate environmental document when the necessary information to support an adequate analysis of potential environmental impacts is available. At this time, details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Further, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project impacts related to the on-site hydrogen system during operation were analyzed.

As discussed in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA 2, Hydrogen Technologies Code, and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and

emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

Furthermore, as described in the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, the project site is not located within an Alquist-Priolo Earthquake Fault Zone or other known fault zone.[34,35] The proposed project facilities would be designed and constructed in compliance with the latest version of the City of Los Angeles Building Code and other applicable local, state, and federal codes to minimize impacts related to fault rupture and seismic ground shaking. Furthermore, a site-specific geotechnical analysis for the project site would be prepared prior to construction to provide design recommendations related to seismic criteria. Therefore, impacts related to potential adverse effects from the rupture of a known earthquake fault and impacts related to strong seismic ground shaking would be less than significant.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P50-3

The commenter expresses concern regarding LA Sanitation's Hyperion Water Reclamation Plant and SoCalGas' Playa del Rey storage facility, neither of which are part of the proposed project. As this comment does not specifically address the adequacy of the Draft EIR, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P50-4

The commenter suggests the increased availability of affordable solar panels for developments within the City. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.5.1, Alternative In-Basin Clean Energy Generation of the Draft EIR, LADWP has on-going efforts to increase alternative sources of in-basin distributed clean energy generation, including rooftop solar, through various programs. These programs include LADWP's Solar Incentive Program, Net Energy Metering Program, Utility Built Solar, Community Solar Program, and Solar Rooftops Program, which enable the installation of PV solar systems at City facilities and customers' rooftops throughout the City to help LADWP meet its renewable energy goals and reduce overall GHG emissions. As such, solar panels are already being widely implemented in the City. However, the intermittent and variable nature of local solar generation would not represent an always-available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented, but was determined not to be a viable alternative to the proposed project. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

[34] California Department of Conservation. 2022. CGS Seismic Hazards Program: Alquist-Priolo Fault Hazard Zones. Available at: https://gis.data.ca.gov/maps/ee92a5f9f4ee4ec5aa731d3245ed9f53/about. Accessed October 2023.

[35] U.S. Geologic Survey. 2022. Quaternary Fault and Fold Database of the United States. Interactive Map. Available at: https://doi.org/10.5066/F7S75FJM. Accessed October 2023.

Comment No. P51

Martin, Jazmin

From: Jake Xie <jakexie520@gmail.com>
Sent: Wednesday, November 20, 2024 10:43 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Modernization Project Opinion

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Hello,

My name is Jake Xie. I am a student at UCLA and a LADWP customer. Additionally, I'm the president of Bruin Supermileage, an engineering club at UCLA focused on sustainability with an emphasis on hydrogen power.

Today, I am writing in support of the Scattergood modernization project because of the positive impact it can have on our community. I am for affordable, reliable, and sustainable power and believe green hydrogen is a viable medium to achieve these objectives. One of my goals as a member of Bruin Supermileage at UCLA is to spread the awareness of hydrogen's value as a mature, commercially produced industrial commodity that has been safely produced and used for decades. P51-1

Green hydrogen is a form of electrification – it stores solar and wind in the form of hydrogen, so it can be used when needed. The issue with solar and wind is that it is intermittent. We are currently curtailing and wasting so much solar and wind in California, almost 2.5 terawatt hours. This generation is totally wasted. Instead, it can be used to produce green hydrogen, and turned back into affordable clean firm dispatchable power for LA. As such, adoption of renewable hydrogen in our power plants is key in decreasing our reliability in fossil fuels and achieving a sustainable, carbon neutral future. Thank you for the work that is done on the Scattergood project and allowing me to comment on this today.

Sincerely,
Jake Xie

Comment No. P51

November 20, 2024
Jake Xie
Bruin Supermileage Club, University of California, Los Angeles
jakexie520@gmail.com

Response to Comment No. P51-1

The commenter introduces themselves as a student and LADWP customer. The commenter expresses support for the proposed project and the use of green hydrogen, stating the limitations of intermittent renewables and the benefits of green hydrogen. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P52

Martin, Jazmin

From: Lauren Bash <laurenfbash@gmail.com>
Sent: Wednesday, November 20, 2024 8:30 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Ratepayer Against Scattergood

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DearLADWP,

My name is Lauren Bash, I am from the Surfrider Foundation Los Angeles, I grew up in the South Bay, and I now live along the Ballona Creek. P52-1

I'm concerned about LADWP's plans to retrofit the Scattergood Generating Station to burn hydrogen. The plans to retrofit Scattergood to expand hydrogen power across Los Angeles are not aligned with community demands for a real community driven solution to the climate crisis or environmental justice principles. This risky project is highly water intensive, highly volatile, and would worsen air quality, which would further endanger public health. I urge you to reject this Draft EIR and to instead pursue alternatives such as the implementation of a grid-scale battery energy storage system. P52-2 P52-3

Thank you for your consideration.

--
Lauren Ferree Bash (she/her)
Environmentalist // Creator
www.relauren.com
IG: @relauren
TikTok: @relauren

Comment No. P52

November 20, 2024
Lauren Ferree Bash
Surfrider Foundation Los Angeles
laurenfbash@gmail.com

Response to Comment No. P52-1

The commenter introduces themselves as a member of the Surfrider Foundation Los Angeles and expresses concern regarding the proposed project's plans to expand reliance on hydrogen power. The commenter states the project does not align with community driven solutions for climate and environmental justice. The commenter is referred to **Topical Response No. 3 – Environmental Justice**. As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. As such, with no environmental justice communities existing in the project vicinity, the project would not result in disproportionate impacts to environmental justice communities. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P52-2

The commenter states the project is water intensive and would result in air quality impacts that would endanger public health.

With regard to the concerns about hydrogen production and water demand, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen. Regarding potable water use, the commenter is referred to page 53 of the Initial Study of the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis.

Regarding air quality and public health, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for

toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P52-3

The commenter expresses their opposition to the Draft EIR and suggests alternative development such as a grid-scale battery energy storage system. The commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.6.2 of the Draft EIR, Alternative 2 would implement a grid-scale battery energy storage system (BESS) to store energy during periods of excess generation to be discharged later during periods of high demand. Although Alternative 2 would eliminate air quality impacts associated with the combustion of fuel during commissioning and operations, the BESS would require substantially more real estate, which would increase the footprint of construction impacts and may be cost-prohibitive and cause substantial delays in implementation of the project. In addition, though technically feasible, the BESS would not provide a readily dispatchable, longer duration energy source during periods of critical demand when major interruptions to service occur. Furthermore, energy storage is already included as an additional major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand.

Comment No. P53

Martin, Jazmin

From: Oliver Krause <ollie.krause@gmail.com>
Sent: Wednesday, November 20, 2024 10:43 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Renewable Power Modernization Project Opinion

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To whom it may concern,

My name is Oliver Krause and I'm a mechanical engineering student here at UCLA. I'm writing today to voice my opinion in favor of the proposed Scattergood power plant modernization project. Green hydrogen is a proven technology and has already seen widespread commercial adoption worldwide. As you may know, many renewable sources are intermittent such as wind and solar so an energy storage solution is necessary during hours of surplus production. Compared to other energy storage technologies, hydrogen offers unparalleled energy density and proven scalability and is thus uniquely positioned to store the terawatt hours of excess energy from renewable sources that would otherwise go to waste. Thank you for all of your hard work on Scattergood and thank you for considering my opinion. P53-1

Regards,
Oliver Krause

Comment No. P53

November 20, 2024
Oliver Krause
University of California, Los Angeles
ollie.krause@gmail.com

Response to Comment No. P53-1

The commenter introduces themselves as a student and expresses support for the proposed project and the use of green hydrogen, stating the benefits of green hydrogen and limitations of intermittent renewables. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P54

Martin, Jazmin

From: Selena Barrios <barriosselena@gmail.com>
Sent: Wednesday, November 20, 2024 5:54 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Re: Scattergood Draft EIR Public Meeting

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To Whom It May Concern,

My name is Selena Barrios. I would like to thank the LADWP for the opportunity to comment on the Scattergood Draft EIR.

As a Los Angeles resident, I would like to share my concerns about LADWP's plans to retrofit the Scattergood power plant to burn hydrogen. This project will cause additional impacts to environmental justice communities. Los Angeles is already in extreme nonattainment for critical pollutants, including ozone. NOx emissions from hydrogen combustion lead to the creation of ozone and smog. These impacts will exacerbate already poor air quality and disproportionately impact the health of frontline communities living near the plant. P54-1

Thank you for your time and consideration of the many impacts of the Scattergood Modernization project. I hope you will reject this Draft EIR and prioritize community and climate health over another risky combustion technology.

Thank you,
Selena Barrios

Comment No. P54

November 20, 2024
Selena Barrios
barriosselena@gmail.com

Response to Comment No. P54-1

The commenter expresses opposition to the Draft EIR and states the project's hydrogen combustion would disproportionately impact environmental justice communities by worsening air quality for communities in proximity to the project site, specifically for criteria pollutants (ozone). The commenter is referred to **Topical Response No. 3 – Environmental Justice**. As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the surrounding census tracts and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. As such, with no environmental justice communities existing in the project vicinity, the project would not result in disproportionate impacts to environmental justice communities.

Further, as discussed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require that offroad construction equipment greater than 80 hp be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P55

November 21, 2024

Comments from Stephen Weaver, P.E., PMP,

Regarding Scattergood Modernization Project, Draft EIR

Address : Long Beach, California

Email : weaversww@gmail.com

Affiliation: Weaver & Associates,
Consultants to Power & Energy Industries

Los Angeles Department of Water and Power
Corporate Environmental Affairs,
Environmental Planning and Assessment
Attn: Jazmin Martin

Email : Scattergood_CEQA@ladwp.com

Thank you for the opportunity to comment upon the subject Draft EIR, as I know that considerable work has been accomplished by LADWP to shepherd this project. As a resident of the greater Los Angeles area (SCE rate-payer), we are all affected by the need for reliable electrical generation which is environmentally responsible. I am strongly in favor of this project to install a Fast Ramping Combined Cycle Gas Turbine (CCGT) technology which will use flexible fuels, including hydrogen. Scattergood Modernization project will provide LADWP & the CAL-ISO Electrical Imbalance Market (EIM) with the following benefits : P55-1

1. Replace obsolete technology - Scattergood's Reheat Steam turbine Units 1 & 2 have extremely long startup and shutdown time periods of 18 to 24 hours. Fast Ramping CCGT technology is capable of responding to adverse weather condition changes from intermittent Solar, Wind, and battery systems. Scattergood's existing U1&2 steam piping systems must be heated for these long periods in order to prevent failures, which wastes significant fuel, and is just not responsive enough to quick changes in power system demand. Scattergood U1&2 were designed & constructed at a time when these units were planned to provide base loaded operation at a nominal 80% capacity factor. CCGT plants of today will likely be dispatched to operate at 25-40% capacity factor to quickly supplement swing loads from renewable, intermittent power. LADWP did NOT RE-ITERNATE this very important distinction during the Public EIR Presentation last night. The entire rest of our USA Country & world is installing Fast Ramping P55-2

CCGT technology to reliably keep the lights on, but California regulators in Sacramento are continuing to take a “wait & see” attitude about the ability of Solar & Wind Renewable Power systems to meet power demands with batteries. LADWP needs to educate the public with transparency about these grave problems.

P55-2 cont'd

2. Grid Scale Battery technology is NOT Sufficient to meet Voltage Control needed in LA Basin area. Lithium-Ion Battery systems are improving, but are still limited by four (4) hour storage durations. Long duration battery storage of ten (10+) hours duration is still unproven technology at this time. Grid scale Li-Ion batteries continue to experience thermal run-a-away fires and explosions. Battery Fires and Explosions have been experienced at : a), Arizona Public Service’s McMicken Substation (Phoenix), and b), at Moss Landing (Elkhorn) Power facility (Monterey). These events are both grim reminders that battery technology has many hurdles still to cross. Lithium Ion batteries continue to be a Hazardous Waste material which will require proper disposal and encapsulation at tremendous future expenses to rate-payers. With all of the Li-Ion Battery systems installed throughout the country, the Inflation Reduction Act (IRA) did not provide any measures for Long Term remediation treatment of Hazardous Waste. Battery system Developers were NEVER required to pay into a trust fund to accommodate building new landfills which would accept these batteries at a future date. Since the 1960s, the nuclear power industry has ALWAYS been required to pay into trust funds for future uranium U238 fuel waste storage and plant remediation. Unfortunately, rate-payers are going to be left holding the bag on future Landfill costs to dispose of grid scale batteries.

P55-3

3. Flexible fueled power generation using Hydrogen fuel resources will ultimately provide Long Duration Energy Storage in the Long Term. EPRI studies have shown that Green Hydrogen (with water electrolysis) will have an approximate Levelized Life Cycle Cost of $ 14 per MMBtu, which is significantly above current natural gas prices. However, compressed hydrogen gas has the best Long Duration Energy Storage capabilities compared to other systems. LADWP should not be required to include the hydrogen fuel supply & storage system in the Draft EIR. Implementation of 30% Hydrogen blending will have a minimal project impact compared to adopting hydrogen as a primary 100% fuel supply to Scattergood, or building a long duration storage system. Scoping out the methods to accomplish these two vastly different objectives is not reasonable. The EIR process should not punishing LADWP for not having the answers to Research & Development questions that are unknown at this time. The fact that Scattergood is located nearly adjacent to the Chevron El Segundo Refinery will provide long term benefits for multiple industries to focus upon these R&D questions.

P55-4

I offer the above statements 1-through-3 as factual based knowledge, and some opinion based industry knowledge. All of these statements are offered in support of the project.

P55-4 cont'd

In addition, I would like to pose the following questions & comments to LADWP regarding the Draft EIR :

P55-5

a. In order to reduce project costs, as well as minimize the impact upon the environment, please detail why LADWP is installing Air Cooled Condenser (ACC) system as part of the CCGT? In other words, rather than demolishing the existing Once Through Cooling (OTC) ocean seawater system, it is suggested to retain & modify this OTC system. LADWP would be able to rebuild and re-configure the OTC system to substantially minimize the impacts to seawater wildlife.

P55-6

b. The new ACC will have a very large footprint, and may engulf different species of butterflies and small birds from the Ballona Wetlands in Playa del Rey. Plastic Netting (on apertures of the ACC) has UV degradation which has to be replaced continually. This type of biological impact could be avoided.

P55-7

c. If designed properly, a newly redesigned OTC can incorporate the following components :
   i) Design & install a much larger buffer pool of seawater to minimize fish impingement on the traveling screens.
   ii) Similar to San Onofre Nuclear Generating Station, design and install a reverse return fish elevator to allow fish and wildlife to return to the ocean, unharmed.
   iii) The submerged seawater intake & outfall piping system may need to be extended beyond the existing Santa Monica Bay surf zone.
   iv) The submerged end of the intake may need to be fitted with a velocity diffuser cap to minimize the entrainment of fish into the system by converting the vertical flow to a lateral flow, thus triggering a flight response from fish

d. It is understood that a revised OTC system will undoubtedly take a much longer time period to obtain permits with the California Coastal Commission, and the Los Angeles Regional Water Quality Control Board. However, the Capital cost benefits to ratepayers could be substantial, saving potentially as much as $ 50 M.

e. By LADWP using an Air Cooled Condenser (ACC) instead of seawater cooling, the system will have thermal efficiency penalty of 3 to 5% worse with ACC. The operational cost increase with ACC cooling will incur substantial natural gas costs.

f. The ACC system will generate substantially greater noise than OTC system, which may or may not affect the property line nearfield / far-field. Unknown.

Submitted : Stephen Weaver, P.E., PMP

Comment No. P55

November 21, 2024
Stephen Weaver
Weaver & Associates
weaversww@gmail.com

Response to Comment No. P55-1

The commenter expresses support for the project and hydrogen use. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. Notwithstanding, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P55-2

The commenter provides information regarding several benefits of the project. The commenter states that Scattergood Units 1 and 2 are inefficient due to long startup, shutdown, and response times. The commenter opines that the CCGS would likely be dispatched to operate at a 25 to 40 percent capacity factor, versus the 80 percent capacity factor of Scattergood Units 1 and 2. The commenter states LADWP did not state this information during the Draft EIR public meeting, and states LADWP needs to inform the public about the state of California regulators and the CCGS technology. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P55-3

The commenter states that grid-scale battery technology is insufficient to meet the energy needs of the Los Angeles area. The commenter provides information regarding the hazards related to lithium-ion batteries. However, the comment does not provide a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P55-4

The commenter states additional benefits to green hydrogen, including cost, energy storage capabilities, and reduced environmental impacts. The commenter supports the notion of the Draft EIR that the hydrogen infrastructure would be analyzed at a future time in a separate environmental review and approval process, when the necessary information to support an adequate analysis of potential impacts is available. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P55-5

The commenter inquires as to why the project utilizes an air-cooled condenser (ACC) as part of the CCGS and suggests keeping and modifying the OTC system instead of removing it from service. The commenter is referred to page 3-2 of the Draft EIR, Section 3.2.1, Scattergood Once-Through Cooling System, which states the following:

> The existing ocean-water once-through cooling (OTC) system at Scattergood would no longer be used once Units 1 and 2 are removed from service concurrent with commissioning of the proposed project. By ceasing use of the remaining OTC system at Scattergood, LADWP will comply with the statewide Water Quality Control Policy on the use of Coastal and Estuarine Waters for Power Plant Cooling, also referred to as the OTC Policy. The OTC Policy was implemented by the State Water Resources Control Board (SWRCB) to establish standards to comply with federal Clean Water Act Section 316(b) to reduce potential effects on marine life associated with the operation of cooling water intake structures … The implementation of the proposed project would have no bearing on the requirement to cease operation of the OTC system, which is separately required under the SWRCB's OTC Policy.

LADWP is decommissioning the OTC system to comply with SWRCB's OTC Policy, which is a separate requirement from the proposed project. As such, the purpose of the proposed ACC is not to replace the function of the OTC system. The ACC is a facility necessary to condense the exhaust steam produced by the steam-turbine generator which would then be pumped back to the heat recovery steam generator to be converted into steam in a closed-loop system.

Response to Comment No. P55-6

The commenter states the ACC would have a very large footprint and expresses concern regarding the potential for the ACC netting to degrade and engulf different species of butterflies and small birds from the Ballona Wetlands. The commenter is referred to Chapter 3, Project Description, of the Draft EIR, where the ACC for the proposed project is described as being a structure similar in size to the existing Units 4 and 5 CCGS ACC located on the north side of Scattergood. Similar to the existing ACC, the intakes at the base of the fans on the proposed ACC would be covered with a metal (not plastic) screen, which would exclude the entry of birds. The fans would have a large diameter (approximately 35 feet) and would rotate at relatively slow speeds (80 to 100 revolutions per minute) with the intent inducing a high volume of air flow rather than high velocities. Therefore, while some insects may pass through the exclusions screens, the operation of the ACC would not be expected to result in high mortality, and no such phenomena has been observed at the existing ACC. Furthermore, the proposed ACC would be located at the south end of the Scattergood property, approximately 3 miles from Ballona Wetlands and, therefore, would not have the potential to significantly affect insect populations at the wetlands.

Furthermore, the commenter is referred to page 29 of the Initial Study for the project (Appendix A of the Draft EIR). As discussed therein, a Biological Resources Assessment was prepared for the proposed project, which determined the potential for special-status species to occur on or within the general vicinity of Scattergood. The assessment found that based on a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, only the El Segundo blue butterfly is expected to occur in the study area. However, based on the results of the conducted field survey, no suitable habitat for the El Segundo blue butterfly was observed that would be impacted by the proposed project footprint. It should be noted that the ESB is an obligate of its host plant seacliff buckwheat (*Eriogonum parviflorum*), which is a perennial shrub and detectable year-round. No seacliff buckwheat (i.e., ESB habitat) was observed at any location in the northern parcel of Scattergood. The southern parcel of Scattergood, located directly west of the Chevron El Segundo Refinery habitat preserve, consists of gravel-paved areas and soil stockpiles, and no coast buckwheat (i.e., ESB habitat) was observed there either. Additionally, ESB is known to be a poor disperser and to stay in close proximity to the host plant. As such, the project's Biological Resources Assessment demonstrated the absence of the host plant seacliff buckwheat within the survey area. Nonetheless, as described in **Response to Comment No. A1-3**, incidental impacts to ESB can be avoided with implementation of CDFW's recommended

mitigation measure, which requires two pre-project surveys to be conducted within one week prior to initiation of construction activities. This mitigation measure will be implemented for the project and is incorporated as Mitigation Measure MM-BIO-2 in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR.

With regard to birds, as described in Chapter 4, Environmental Impact Analysis, of the Draft EIR, although suitable nesting habitat for various year-round and seasonal bird species occur within the survey area, no active nests or birds displaying overt nesting behavior were observed during the field survey of Scattergood. No trees are located within the footprint of the proposed project facilities; therefore, no trees would be removed for the project, and no direct impacts would occur. Indirect impacts to nesting birds within the survey area could occur as a result of noise, increased human presence, and vibrations resulting from construction activities. Disturbances related to construction could result in increased nestling mortality due to nest abandonment or decreased feeding frequency. Trees suitable for nesting are not generally located adjacent to areas of Scattergood that would be subject to construction activity. Nonetheless, because indirect impacts to nesting birds could occur, nesting bird surveys and protocol would be conducted during project construction pursuant to Mitigation Measure MM-BIO-1 to ensure indirect impacts to nesting birds would be less than significant.

Further, no impacts to sensitive natural communities (including riparian habitat) as well as state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands which are located approximately 3 miles northwest of the project site. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P55-7

The commenter reiterates the suggestion that a modified OTC system be utilized as part of the project and recommends modifications. The commenter states the ACC would be less efficient, thus resulting in higher costs, and would generate greater noise impacts compared to the OTC system. The commenter is referred to **Response to Comment No. P55-5**, which discusses the OTC system and the proposed ACC.

Regarding noise impacts, the commenter is referred to Section 4.5, Noise, of the Draft EIR, which includes an analysis of the project's noise impacts amongst the three vendors that LADWP is considering for the proposed CCGS system. The noise analysis conducted for construction and operation of the project considered noise impacts from the proposed CCGS and determined that project implementation would not generate a substantial increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance. The noise analysis concluded noise impacts for all three vendors would be less than significant. As such, implementation of the CCGS would not result in significant noise impacts to the environment.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P56

Martin, Jazmin

From: Vishwa Diwan <vishd16@gmail.com>
Sent: Thursday, November 21, 2024 10:01 AM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Modernization Project | Public Comment

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Hi,

My name is Vishwa Diwan, and I am a political science student at UCLA. I am contacting you because I am fully in support of the Scattergood modernization project--one that is pivotable in removing fossil fuels through the use of Green hydrogen. We absolutely need to achieve a carbon-free energy system for Los Angeles--a city that houses millions of people and that is 100% in need of an update in its energy systems to save the negative climate changes being faced today here and all over the world. As someone who lives in Los Angeles, this initiative greatly impacts me and the thousands of people I go to college with; having affordable and reliable power is super important to maintaining and improving the life of millions and billions all over. P56-1

Modernizing the generating station to utilize a fuel mixture that includes hydrogen would support the transition to renewable energy sources, which is crucial for combating climate change. The energy waste that happens in one of the most green states in the United States--California--is disappointing, as we waste a lot of solar and wind power. The Scattergood project would help redirect our energy pathway into a better plan and infrastructure that will benefit future generations; without this, the waste will only increase and this society and its energy will decline, leading to grave impacts on those in generations ahead. Thank you for taking the time to read this and allowing for public comment.

Best,

Vishwa Diwan
UCLA Political Science

Comment No. P56

November 21, 2024
Vishwa Diwan
University of California, Los Angeles
vishd16@gmail.com

Response to Comment No. P56-1

The commenter introduces themselves as a student and expresses support for the proposed project, stating the benefits of renewable energy for future generations and impacts on climate change. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P57

Martin, Jazmin

From: Carey Upton <cupton8@gmail.com>
Sent: Saturday, November 23, 2024 9:26 AM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Hydrogen EIR

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Hello,
This is a comment on the Draft EIR for the Scattergood Generating Stations Units 1 and 2 Green Hydrogen-Ready Modernization Project. Please include my comment and a response in the Final EIR.

Under CEQA, this project is incomplete because it defers and does not include the "installation of the infrastructure for the production, delivery, and storage of hydrogen" in the scope of the proposed project. Lacking these potentially significant impacts, the current EIR fails to meet the requirements of appropriately analyzing the environmental impacts of the entire project. CEQA does not allow piecemealing projects. This limited modernization project would not allow the system to be operational without the green hydrogen system. This makes the project incomplete and as the DEIR states additional CEQA analysis must be done. P57-1

I do not have objections to what is in the EIR other than it is incomplete. The stated impacts and mitigations are appropriate for this type of project. I wish the alternatives that use less fossil fuels were more advanced, but I agree with modernizing this system even though it still burns substantial natural gas and continues greenhouse gas impacts to the planet.

My primary concern is, and not in this EIR, are the potential impacts on the Ballona wetlands and the surrounding communities. It is not a stretch to anticipate this project will continue to pull from the SoCal Gas storage in the wetlands which perpetuates the negative impacts of this system. Also, it is not a stretch to anticipate the green hydrogen system would potentially use and expand the SoCal Gas storage facility and create potentially greater environmental impacts to this environmentally sensitive habitat area. Since the project does not address the green hydrogen system, it is impossible to evaluate the potential environmental impacts of the entire project. P57-2

I request that you reject this EIR and return with an EIR that includes the complete project, including the green hydrogen system.

Warmly,

Carey Upton
8311 Delgany Ave
Playa del Rey, CA 90293
cupton8@gmail.com
818-472-6668 c

Comment No. P57

November 23, 2024
Carey Upton
8311 Delgany Avenue, Playa del Rey, CA 90293
cupton8@gmail.com
(818) 472-6668

Response to Comment No. P57-1

The commenter states the Draft EIR defers and does not include the analysis of the infrastructure and supply for green hydrogen, and as such, the project analysis is incomplete. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2, Green Hydrogen, of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because the details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. As such, the project's analysis is not incomplete. This comment does not identify information that meets any of the criteria for revisions to or recirculation of the Draft EIR. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P57-2

The commenter expresses concern regarding the project's impacts to the Ballona Wetlands and surrounding communities. The commenter states the use of green hydrogen would potentially utilize and expand the existing SoCalGas storage facilities, resulting in greater impacts to the Ballona Wetlands. The commenter requests that the Draft EIR be rejected and revised to include the green hydrogen system. With regard to the concerns surrounding natural gas, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. In addition, while the commenter is concerned about expansion of green hydrogen infrastructure in the Ballona Wetlands, the commenter does not provide evidence to support these claims. No impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands which is located approximately 3 miles north of the Scattergood property. Furthermore, the commenter is referred to **Response to Comment No. P57-1**, above, and **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. The Draft EIR does not address green hydrogen infrastructure to Scattergood because the details related to the infrastructure needed to support the proposed project are currently unknown and any such analysis would be speculative and of little informational value. Therefore, the green hydrogen

system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

This comment does not identify information that meets any of the criteria for revisions to or recirculation of the Draft EIR. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P58

Martin, Jazmin

From: David Kaskowitz <dkasko@gmail.com>
Sent: Saturday, November 23, 2024 12:41 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Comment on Scattergood DEIR

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My name is David Kaskowitz. I am making a public comment as a volunteer with the Sierra Club Electric Sector Campaign. I would like to thank the LADWP for the opportunity to comment on the Scattergood Draft EIR.

My primary concern about the plan to convert the Scattergood plant to burn a methane/hydrogen blend and eventually burn 100% hydrogen is that the plant will continue to burn methane for the unforeseeable future. Gas retirement is long overdue and transitioning to hydrogen is only building on our existing gas infrastructure. LADWP's gas plants need to be retired and this project will prolong the use of gas for an undisclosed period, as the future of hydrogen remains uncertain due to technological limitations and its high cost. Our climate crisis is too severe to waste time with proposals that continue to rely on fossil fuels for an unforeseeable period. P58-1

In addition, this project will cause even more negative impacts to environmental justice communities living nearby. Los Angeles is already in extreme nonattainment for critical pollutants, including ozone. NOx emissions from hydrogen combustion lead to the creation of ozone and smog. These impacts will exacerbate already poor air quality and disproportionately impact the health of frontline communities living near the plant. P58-2

Rather than spending a fortune keeping LADWP's gas plants working with this questionable scheme, it is time to retire them and move on to replace them with true clean energy solutions that are quickly being developed to make the use of solar combined with storage to be the better approach. P58-3

Thank you for taking my public comment. I hope you will reject this Draft EIR and prioritize community and climate health over another risky combustion technology.

Yours truly,

David Kaskowitz

Comment No. P58

November 23, 2024
David Kaskowitz
Sierra Club Electric Sector Campaign
dkasko@gmail.com

Response to Comment No. P58-1

The commenter introduces themselves as a volunteer with the Sierra Club Electric Sector Campaign. The commenter expresses concern regarding the use of methane and states the project will prolong the use of methane due to the high cost and technological limitations of hydrogen infrastructure. The commenter suggests the decommissioning of LADWP's gas plants and the rejection of projects that continue to rely on fossil fuels for an unforeseeable period.

The commenter is directed to Section 3.4, Project Objectives, of the Draft EIR which establishes the objectives of the proposed project and the broader aims of LADWP's future energy planning, development, and operations to maintain the reliability and resilience of the City's electrical power grid during and after the transition to a carbon-free system. As detailed in Section 3.4.4 of the Draft EIR, LADWP has committed to achieving a carbon-free energy system for the City. The 2022 Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan)determined that obtaining a carbon-free energy system requires considerable investments in renewable generation, energy storage, and transmission infrastructure as well as initiatives to conserve energy. Scattergood Units 1 and 2 are conventional natural-gas-fired steam boiler generators with aging technology that are less fuel efficient and, therefore, emit more air pollutants and GHGs than modern generation units. Construction of a rapid-response CCGS with the ability to operate on a fuel mixture of natural gas and hydrogen would increase generation efficiency and reduce the combustion of fossil fuels and thereby reduce GHGs. The project does not aim to perpetuate dependence on fossil fuels. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P58-2

The commenter states the project would impact environmental justice communities by worsening air quality, specifically through increased criteria pollutants, for communities in proximity to the project site. The commenter is referred to **Topical Response No. 3 – Environmental Justice**. As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. As such, with no environmental justice communities existing in the project vicinity, the project would not result in disproportionate impacts to environmental justice communities. The commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the

chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

The commenter also expresses concerns regarding NO_x emissions, which will lead to the creation of ozone and smog. With regard to air quality impacts during construction, as detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to combustion turbine generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P58-3

The commenter requests that the Draft EIR be rejected and suggests decommissioning LADWP's existing gas infrastructure and utilizing clean energy infrastructure to prioritize community and climate health. The commenter is referred to **Topical Response No. 4 – Alternatives** for a summary of alternatives analyzed in the Draft EIR which include renewable energy alternatives. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P59

Martin, Jazmin

From: Mary Fitzpatrick <camposaludable@gmail.com>
Sent: Saturday, November 23, 2024 4:48 AM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Hydrogen plan comments

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To Whom It May Concern:

The draft EIR for the Scattergood Generating Station's two-phase hydrogen conversion is incomplete because the technology has never been used at scale and because the source of the green hydrogen required for it has not been identified. Nonetheless, the partial plan is seriously flawed and further planning should be halted before investments are wasted on it for the following reasons. P59-1

Hydrogen is dangerous. It is highly flammable and can be explosive when mixed with air. El Segundo has a population over 17,000, and the L.A. metropolis through which hydrogen would be piped has over 18 million residents and is in an active earthquake zone. P59-2

The NO_x pollution produced when hydrogen is burned causes health problems. NO_x has been linked to respiratory and heart problems and contributes to ozone formation. The greater Los Angeles area already has some of the worst air quality in the United States. P59-3

The cost of the plan is astronomically high, $800 million for just phase one. The cost of decommissioning Scattergood now and replacing it with clean solar and wind sources would be much less. But initial investments do not reflect the true dollar cost of energy infrastructure; ratepayers will have to bear the costs of borrowing, insurance, decommissioning, and stranded assets in the future. P59-4

Hydrogen energy would be inefficient. Sunlight and wind generate electricity directly and cheaply, but green hydrogen generation takes two steps. First, sunlight- or wind-generated electricity is used to make hydrogen, and then the hydrogen is burned to make new electricity – thus, there's no net gain, and likely a net loss of energy. P59-5

Finally, a hydrogen plan does not meet our need to immediately address the global warming crisis. Hydrogen combustion produces CO_2, a long-lived greenhouse gas which is the main cause of the climate change we are experiencing. Furthermore, the methane proposed in the blend in phase one has a tendency to leak at all stages from extraction to transport to combustion, and is the second most potent greenhouse gas that is causing our climate to become erratic. P59-6

In view of these troubling flaws with hydrogen plans, environmentalists like myself believe the Scattergood hydrogen generation plan is just an effort to keep an aged polluting gas plant financially viable while the climate crisis continues becoming more of an existential worry. P59-7

Sincerely yours,

Mary Fitzpatrick, San Francisco Bay Area

Comment No. P59

November 23, 2024
Mary Fitzpatrick
camposaludable@gmail.com

Response to Comment No. P59-1

The commenter states the Draft EIR is incomplete because the technology has never been used at scale and there is no identified source of green hydrogen. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.3.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P59-2

The commenter states hydrogen is dangerous due to its flammability and explosivity, particularly in an active earthquake zone. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, while hydrogen is currently used at Scattergood in relatively small quantities in the generation unit cooling process, it would be used in greater quantities as a fuel for the proposed project combustion turbine. The Draft EIR does not address the supply of green hydrogen to Scattergood in terms of the production, delivery, and storage infrastructure, which will be analyzed under a separate environmental document when the necessary information to support an adequate analysis of potential environmental impacts is available. LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project impacts related to the on-site hydrogen system during operation were analyzed.

As stated in the Draft EIR, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA 2, Hydrogen Technologies Code, and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of

hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

Furthermore, as described in the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, the project site is not located within an Alquist-Priolo Earthquake Fault Zone or other known fault zone.[36,37] The proposed project facilities would be designed and constructed in compliance with the latest version of the City of Los Angeles Building Code and other applicable local, state, and federal codes to minimize impacts related to fault rupture and seismic ground shaking. Furthermore, a site-specific geotechnical analysis for the project site would be prepared prior to construction to provide design recommendations related to seismic criteria. Therefore, impacts related to potential adverse effects from the rupture of a known earthquake fault and impacts related to strong seismic ground shaking would be less than significant.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P59-3

The commenter states the NO_x emissions resulting from the burning of hydrogen causes health issues, such as respiratory and heart problems. The commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P59-4

The commenter expresses concern with the high cost of project implementation. The commenter is referred to Chapter 2, Introduction, of the Draft EIR, which states the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis

[36] California Department of Conservation. 2022. CGS Seismic Hazards Program: Alquist-Priolo Fault Hazard Zones. Available at: https://gis.data.ca.gov/maps/ee92a5f9f4ee4ec5aa731d3245ed9f53/about. Accessed October 2023.

[37] U.S. Geologic Survey. 2022. Quaternary Fault and Fold Database of the United States. Interactive Map. Available at: https://doi.org/10.5066/F7S75FJM. Accessed October 2023.

of the proposed use. Therefore, this comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P59-5

The commenter states hydrogen energy is inefficient due to its multi-step generation process. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood, and the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P59-6

The commenter states the combustion of hydrogen would exacerbate climate change impacts due to GHG emissions.

The project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study,[38] which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources, as detailed in Chapter 3, Project Description, of the Draft EIR. As described in Section 3.4, Project Objectives, of the Draft EIR, the objectives of the proposed project would be consistent with the broader aims of LADWP's future energy planning, development, and operations to maintain the reliability and resilience of the City's electrical power grid during and after the transition to a carbon-free system. Furthermore, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, which discusses the impacts related to GHG emissions resulting from the project. As analyzed therein, the main source of GHG emissions from project operations would be the CCGS, which would result in higher GHG emissions when run with 100 percent natural gas than a natural gas/hydrogen fuel blend. The project-generated operational GHG emissions would fall below the federal New Source Performance Standard Subpart TTTT for Greenhouse Gas Emissions for Electric Generating Units and state Senate Bill 1368 standards for all three vendors. Therefore, the project would not result in significant operational GHG emissions. Further, the proposed project's GHG emissions would be consistent with federal, statewide, regional, and local policies, including the California Air Resources Board's 2022 Scoping Plan and the City's Air Quality Element of the General Plan, which are intended to reduce and eventually eliminate GHG emissions from power generation through the use of renewable resources and less-polluting fuels. As such, the project would not conflict with or obstruct regional and state-wide goals to reduce GHG emissions and climate change impacts. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P59-7

The commenter expresses overall concern with the project. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the

[38] Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. Available at: https://maps.nrel.gov/la100/la100-study/report.

Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-making bodies for their review and consideration.

Comment No. P60

Martin, Jazmin

From: Le Chevalier D'Artagnan <m.dartagnan@gmail.com>
Sent: Monday, November 25, 2024 1:31 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] I urge you to reject Scattergood EIR

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Dear DWP:

Thank you for this opportunity to comment on the Scattergood EIR by email as I am unable to make it to the Dec. 5 meeting. I am a longterm resident of California, a physicist, and long term watcher of energy technology. P60-1

The EIR did not consider health effects, costs and the costs of alternative wind and solar, feasibility, and time line of the project, and so I urge DWP to reject the EIR in the strongest possible way.

The Scattergood retrofit is estimated to cost $800 million, which does not include the second retrofit, the cost of hydrogen itself or the cost of the infrastructure to deliver hydrogen.

Things like "green hydrogen" are energy technologies that are in the highly speculative, unproven at scale, and ultra-expensive stage. There are many such technologies, but solar and wind are here today, they are very cheap (cheaper than gas plants) and the price of storing their energy in batteries is dropping precipitously every year. It makes no sense whatever to gamble LA's energy future on this. People promoting hydrogen talk a lot about "green hydrogen". People looking at hydrogen critically talk about the "hydrogen boondoggle", and point out that it functions as misdirection, postponing real carbon-free energy sources like wind and solar plus batteries. Critical examinations point out that clean hydrogen, at scale, doesn't exist, and the cost projections are eye-watering. DWP should be investing in proven wind and solar to replace gas power plants ASAP. P60-2

There are numerous other reasons to reject the EIR, including that it apparently ignored the NREL study assessing alternatives to hydrogen. However, hydrogen means combustion, and that means NOx production and associated health risks. Can you approve an EIR that so blithely dismissed the concerns of local residents over their and their children's health? How could this EIR so easily gloss over the questions of energy and environmental equity, planning to dump these combustion pollutants right into the air that locals and their children breathe, and have breathed for years because of their economic situation which lands them near a power plant? P60-3 P60-4

I urge you in the strongest terms to reject the EIR for scattergood in favor of a more complete assessment that takes full account of the points above. P60-5

-Bruce Grossan
510.649.1656
m.dartagnan@gmail.com

Comment No. P60

November 25, 2024
Bruce Grossan
m.dartagnan@gmail.com
(510) 649-1656

Response to Comment No. P60-1

The commenter introduces themself as a resident and states that they were unable to attend the project's public meeting. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required.

Response to Comment No. P60-2

The commenter expresses their opposition to the Draft EIR, asserting the Draft EIR did not analyze health impacts, cost, cost of a wind or solar alternative, feasibility, and project timeline. The comment also states that green hydrogen technologies are speculative and unproven.

Regarding health impacts, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

Regarding a wind or solar alternative, the commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.5.1 of the Draft EIR, the development of alternative clean energy generation is already being implemented by LADWP through multiple solar photovoltaic programs to generate carbon-free, renewable energy for its power grid. Although the development of distributed local solar generation is technically feasible and represents a means of achieving some objectives similar to those of the proposed project, because of its intermittent and variable nature, it would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Furthermore, distributed energy does not represent an effectively feasible alternative to the proposed project because its implementation has already been accounted for in the assessment of the need for the project. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

Additionally, wind generation would generally occur outside of the Los Angeles basin and would be imported via new and upgraded transmission lines. While transmission capacity enables LADWP to deliver renewable energy to its end-users, it does not address LADWP's generation needs to meet peaks in demand or interruptions in the delivery of out-of-basin renewable energy. Therefore, LADWP must also maintain sufficient in-basin firm generation capacity to respond to extended transmission outages due to wildfires, high winds, and earthquakes. New and upgraded transmission lines will continue as planned whether or not the proposed project is implemented.

Regarding cost, feasibility, and timeline of the project, the commenter is referred to Chapter 2, Introduction, of the Draft EIR, which states the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. With regard to timeline, It is to be noted that Section 3.5.2, Project Construction, in the Draft EIR estimates the construction of the project to take approximately 3 years to complete, beginning in 2026 and ending in mid-2029.

Regarding the commenter's concern that hydrogen technologies are speculative and unproven, while the commenter does not provide project-specific context or evidence to support this claim and does not specifically address the adequacy of the Draft EIR, it should be noted that the U.S. Energy Information Administration reports that natural gas power plant operators across the U.S. are upgrading existing turbines to use a blend of natural gas and hydrogen, testing fuel blends at existing power plants, and constructing new combined cycle generating systems ranging from 74 MW up to 1,158 MW.[39]

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P60-3

The commenter states that the Draft EIR should be rejected and suggests the NREL study was ignored. The commenter is referred to **Topical Response No. 4 – Alternatives**. The NREL Alternatives Report did not identify any feasible alternatives that could meet the objectives of the proposed project. The NREL Alternatives Report, which was completed under the specifications established by the Los Angeles City Council Motion 23-0039, considers changes in technologies that have occurred since the completion of the Los Angeles 100% Renewable Energy Study and reevaluates the need for dispatchable capacity at Scattergood. The report compares the proposed project to four non-combustion alternatives (i.e., new and upgraded transmission, energy storage, fuels cells, and demand response) as well as combinations of the above technologies by considering their constructability by 2029, contribution toward reliability, cost, ability to be sited at or near Scattergood, safety, and emissions among other factors. Though the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR, information and analysis provided in the NREL Alternatives Report support the alternatives analysis in the EIR as further confirmed in the **Topical Response No. 4 – Alternatives** discussion. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P60-4

The commenter expresses their concerns with the project's impacts on public health and asserts that the Draft EIR was dismissive of community concerns. The commenter is referred to **Response to Comment No. P60-2** and Section 4.2, Air Quality, of the Draft EIR, which discuss the HRAs that were conducted for construction and operation of the project. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors,

[39] U.S. Energy Information Administration. 2024. In-Brief Analysis: U.S. electric power sector explores hydrogen cofiring at natural gas-fired plants. Available at: https://www.eia.gov/todayinenergy/detail.php?id=63084#:~:text=Power%20plants%20under%20construction,cofire%20up%20to%2030%25%20hydrogen. Accessed September 2025.

the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P60-5

The commenter's concluding note requests that the Draft EIR be rejected in favor of a more complete assessment that accounts for the concerns above. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Thomas L. McMahon
8207 Delgany Avenue
Playa del Rey, CA 90293

November 25, 2024

Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
Attn: Jazmin Martin
111 North Hope Street, Room 1044
Los Angeles, CA 90012

Dear Jazmin –

Regarding "Scattergood Units 1 & 2 Modernization Project":

Replacing the generation capacity of existing Scattergood Units 1 and 2 with a modern, higher efficiency rapid-response combined-cycle generation system (CCGS) operating solely on natural gas (using no hydrogen at all) will result in lower emissions, lower operating costs, and greater reliability in short-term periods when renewable generation sources and/or transmission assets for the LA Grid become unavailable due to emergency circumstances. This modernization, plus elimination of the once-through cooling (OTC) system planned to be executed in parallel with the Modernization Project, achieves a major step forward in environmental benefits at the Scattergood Peaker Plant LA Grid node. That will be true with no use of hydrogen at all.

At this point I do not believe that hydrogen (of any color) will ever actually be employed in normal future operation of this facility, simply due to the cost and logistics of H2 production and transport. Environmentally, financially, and engineering-wise the proposed CCGS project and draft EIR are a good thing and a good deal for the City of Los Angeles. The engineering and current operation of the LA Grid requires a Peaker Plant at that node. The hydrogen veneer employed as a selling point and justification for the modernization was/is an unfortunate and unnecessary distraction. Opponents to possible future employment of a hydrogen mix at this new facility may wish to focus on decoupling that part of the dialog as it is a separable option; the Modernization & CCGS Project itself should proceed.

P61-1

Thank you and best regards,

Tom McMahon



+1-310-717-7208
SOMED@PN-Junction.Net

Ref:

https://www.ladwp.com/community/construction-projects/west-la/scattergood-generating-station-units-1-and-2-green-hydrogen-ready-modernization-project

Members of the public who wish to submit a comment as part of the CEQA record can do so by mail or email. Please send comments to the following:

MAIL
Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
Attn: Jazmin Martin
111 North Hope Street, Room 1044
Los Angeles, CA 90012

EMAIL
Scattergood_CEQA@ladwp.com

Comment No. P61

November 25, 2024
Thomas L. McMahon
8207 Delgany Avenue, Playa del Rey, CA 90293
SOMED@PN-Junction.Net
(310) 717-7208

Response to Comment No. P61-1

The commenter states that implementation of the proposed project with no hydrogen use (i.e., solely natural gas) would achieve lower emissions, operating costs, and greater reliability. The commenter expresses overall support for the project and the Draft EIR but also expresses doubt that the project would realistically utilize green hydrogen in its lifetime. The commenter suggests removal of the green hydrogen component of the project and instead proposes focusing solely on the modernization of Scattergood Units 1 and 2. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P62

Martin, Jazmin

From: Meredith Rose <mlrose@sonic.net>
Sent: Monday, December 2, 2024 3:55 PM
To: Scattergood_Modernization_Project; Meredith
Subject: [EXTERNAL] Scattergood - Public Comment

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Greetings,

I attended the webinar on 20 November 2024 when LADWP presented its proposal to convert Scattergood into a "green" hydrogen-ready modernization project.

I am writing to urge LADWP to reject the Draft Environmental Impact Review.

This report does not take into account the full environmental and health impacts of retrofitting the facility. One of the plan's main objectives is to "Reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system." Presumably, this will be accomplished through the burning of methane ("natural" gas), which has over 80 times the warming power of carbon in its first 20 years of reaching the atmosphere and "green" hydrogen -- which does not exist at scale. P62-1

We are in a climate emergency. The Earth's temperature has risen above 1.5 C for a number of months. We cannot continue burning fossil fuels while "green" hydrogen attempts to get to scale, an endeavor that will possibly take decades.

The proposed "modernization project" is not modern at all. It is simply a repackaging of fossil fuel with green washing language. Future generations deserve a livable planet. LADWP has the ability to help move us in that direction, but the Scattergood modernization project will do just the opposite.

Sincerely,

Meredith Rose

Comment No. P62

December 2, 2024
Meredith Rose
mlrose@sonic.net

Response to Comment No. P62-1

The commenter expresses their opposition to the project, stating the project evokes “green washing” and the Draft EIR does not fully analyze the environmental and health impacts of the project. The commenter states their concern with the prolonged use of natural gas and resulting greenhouse gas emissions, and the lack of feasibility with the use of green hydrogen.

The commenter is referred to **Response to Comment No. P59-6**. As stated therein, the project would result in less than significant impacts related to GHG emissions. The commenter is also referred to Sections 4.1 through 4.7 and Appendix A (Initial Study) of the Draft EIR, which fully analyze the project’s environmental and health impacts based on CEQA thresholds of significance. In summary, the proposed project would result in less than significant impacts or less than significant impacts with mitigation with the exception of significant and unavoidable air quality impacts during the temporary commissioning period of the project and during the operational scenario with Vendor B (primarily related to generator startup and shutdown operations). Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P63

Martin, Jazmin

From: ChickenNuggetChuck <svaldez0028@gmail.com>
Sent: Wednesday, December 4, 2024 12:08 PM
To: Scattergood_Modernization_Project
Cc: ashley@cbecal.org; jordyn@cbecal.org
Subject: [EXTERNAL] Opposing LADWP scattergood plant DEIR retrofits

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My name is Salma I'm a Youth for environmental justice leader with Communities for a Better Environment and a resident living in Wilmington, CA.
As our energy providers we urge you to invest in real solutions toward clean and alternative energy instead of hydrogen combustion that would result in high rates of asthma, cancer, reproductive issues and further perpetuate false solutions and environmental injustice in our region. P63-1

Thank You

Comment No. P63

December 4, 2024
Salma Valdez
Communities for a Better Environment
svaldez0028@gmail.com

Response to Comment No. P63-1

The commenter introduces themselves as a member of the Communities for a Better Environment. The commenter requests the use of clean and alternative energy instead of green hydrogen, claiming that the use of green hydrogen would result in cases of asthma and cancer, reproductive issues, and would not support environmental justice.

Regarding an alternative source of energy, the commenter is referred to **Topical Response No. 4 – Alternatives** for a summary of the alternatives analyzed and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR for a more detailed analysis.

Regarding health impacts, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

Regarding environmental justice concerns, the commenter is referred to **Topical Response No. 3 – Environmental Justice**. As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. As such, with no environmental justice communities existing in the project vicinity, the project would not result in disproportionate impacts to environmental justice communities. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P64

Martin, Jazmin

From: SAAKSHI PHILIP <saakship19@g.ucla.edu>
Sent: Friday, December 6, 2024 4:33 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Modernization Project | Public Comment

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello,

My name is Saakshi Philip, and I am a political science and economics student at UCLA. I am writing to express my strong support for the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project. This initiative is vital to transitioning Los Angeles toward a carbon-free energy system while ensuring reliable power for the millions who live and work in this great city.

As someone who resides in Los Angeles, I believe modernizing Scattergood is a pivotal step in addressing the urgent challenges of climate change. These improvements will benefit not only current residents but also future generations, safeguarding our city's environment and infrastructure against the worsening impacts of climate change.

P64-1

I urge LADWP to prioritize this essential project and ensure its timely implementation. Thank you for your dedication to creating a cleaner, more sustainable energy future for Los Angeles and for the opportunity to provide public input on this important matter.

Sincerely,
Saakshi Philip
UCLA Political Science and Economics

Comment No. P64

December 6, 2024
Saakshi Philip
University of California, Los Angeles
saakship19@g.ucla.edu

Response to Comment No. P64-1

The commenter introduces themselves as a student and expresses support for the proposed project. The commenter states the benefits of the project in addressing impacts of climate change for current and future generations, and requests prioritization of the project. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P65

Martin, Jazmin

From: MAY RAYMOND <mayraymond@g.ucla.edu>
Sent: Saturday, December 7, 2024 5:28 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Modernization Project - Public Comment

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Good Evening,

My name is May Raymond, and I am a political science student at UCLA. I am writing to express my support for the Scattergood modernization project. Natural gases are a significant producer of greenhouse gases that are accelerating climate change, and this project will replace Los Angeles' reliance on natural gas with Green hydrogen. California, despite its progressive stance on climate change, is still a leading state in greenhouse gas emissions. Therefore, if Los Angeles were to make the successful switch to Green hydrogen, it would be an important step in continuing the fight against the climate crisis across the state and even the nation. P65-1

This initiative will greatly impact me and my fellow students at UCLA. My generation as a whole cares greatly about our impact on the climate and wants to take immediate action to protect it for future generations. Additionally, we, like all residents of Los Angeles, will benefit from the affordable and reliable power of Green hydrogen. Thank you for taking the time to read this and for allowing public comment.

Best.

May Raymond
UCLA Political Science

Comment No. P65

December 7, 2024
May Raymond
University of California, Los Angeles
mayraymond@g.ucla.edu

Response to Comment No. P65-1

The commenter introduces themselves as a student and expresses support for the proposed project, stating the project would help to address impacts of climate change through the use of green hydrogen and the resulting reduction in greenhouse gas emissions. The commenter states the project would benefit other students and residents due to affordability, reliability, and climate benefits. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P66

Martin, Jazmin

From: Carter Moon <cartermoon719@gmail.com>
Sent: Tuesday, December 10, 2024 7:31 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Comment: I Oppose the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project

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To Whom It May Concern,

I am writing to leave public comment regarding the Scattergood Generating Station Modernization project. I live in West LA and believe this will be a disaster for our community. I find it preposterous to rely on grey hydrogen to continue pumping methane when we should be pursuing actual zero emissions solutions such as long duration battery storage for solar and wind. I believe the risks of hydrogen in no way outweigh the potential benefits, this is brazenly a scheme to keep SoCalGas in the Methane business. P66-1

Thank you,
Carter Moon

Comment No. P66

December 10, 2024
Carter Moon
cartermoon719@gmail.com

Response to Comment No. P66-1

The commenter expresses their opposition to the proposed project, stating their concerns with the use of grey hydrogen and methane. It is to be noted that the project would be designed to utilize green hydrogen and not grey hydrogen. The commenter also suggests the use of zero emissions solutions, such as battery storage for solar and wind energy. The commenter is referred to **Topical Response No. 4 – Alternatives**.

As detailed therein and in the Draft EIR, various alternatives to the project were considered, including a grid-scale battery energy storage system (BESS). Because of the space limitations at Scattergood, a BESS system of equivalent short-term capacity (up to 4 hours) as the proposed project would require approximately 20 acres of additional real estate outside of Scattergood but within the Scattergood service area. Though technically feasible, implementation of a grid-scale BESS to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS and would require substantially more real estate. During periods of extreme peak demand, batteries would need to be recharged largely from in-basin generation during overnight time periods (likely from combustion generation sources), which may reduce the lifespan of certain electrical equipment, especially during heatwaves. Typically, reduced overnight loads allow transformers and other equipment to cool, and additional loading from storage charging would reduce cooling opportunities, potentially increasing failure rates and requiring accelerated equipment replacement and associated costs. Therefore, while it may be effective to meet daily peaks in demand that exceed available renewable generation resources, it would not provide adequate energy to maintain system reliability during longer-duration interruptions in the generation and/or transmission system caused by emergency circumstances. Furthermore, energy storage is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. Therefore, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Therefore, no further response to this comment is required. Notwithstanding, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P67

Martin, Jazmin

From: Sophia Hua <sophiajhua@g.ucla.edu>
Sent: Tuesday, December 10, 2024 11:21 AM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Modernization Project - Public Comment

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello,

My name is Sophia Hua and I am a political science student at UCLA who is strongly in support of the Scattergood modernization project. We must make progress toward a transition to renewable energy if we want to continue sustaining ourselves and future generations, and this project has been identified as a critical step in that transition.

As a resident of Los Angeles, this project would directly benefit myself and fellow residents by reducing the amount of air pollutants released, while also increasing energy efficiency. Poor air quality can have highly detrimental impacts on residents' health over time, so the sooner we implement improvements like this project, the better off all of us will be.

P67-1

Thank you for your time and consideration.

Sincerely,

--
Sophia Hua
University of California, Los Angeles
Political Science Major

Comment No. P67

December 10, 2024
Sophia Hua
University of California, Los Angles
sophiajhua@g.ucla.edu

Response to Comment No. P67-1

The commenter introduces themselves as a student and expresses their support for the proposed project, stating the project would result in beneficial impacts to air quality and energy efficiency. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P68

Martin, Jazmin

From: Ethan Senser <ethansenser@gmail.com>
Sent: Thursday, December 12, 2024 8:01 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] No Hydrogen at Scattergood

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello,

I am writing to urge LADWP to listen to communities on the front line when they say that converting Scattergood to run on hydrogen is a bad idea.

You would think that after years and years of lies and abuse, LADWP would finally call SoCalGas out and hold them accountable to the community.

Instead SoCalGas is getting the city's support for its scam of a hydrogen project - one which SoCalGas itself has ADMITTED to a former city council member is a ploy to keep LA hooked on methane for as long as possible. P68-1

What respect can the community have for LADWP? You are serving us a turd sandwich and telling us it's organic.

As a municipally run public utility, LADWP cannot survive without the trust and support of the public. Work with the community and let's collectively build new paths forward together.

Otherwise - we'll all be eating shit.

Sincerely,
Ethan Senser

Comment No. P68

December 12, 2024
Ethan Senser
ethansenser@gmail.com

Response to Comment No. P68-1

The commenter expresses their opposition to the proposed project and questions the legitimacy of the project. The commenter states that LADWP should collaborate with the community.

It is to be noted that the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. As part of the CEQA environmental process for this project, LADWP distributed a Notice of Preparation (NOP) to 63 agencies, organizations, and other interested parties, to inform that LADWP planned to prepare a Draft EIR and to request input regarding the scope and content of the environmental analysis and information to be included in the Draft EIR. The NOP was circulated for a 30-day review period with two additional extensions for a total review period of 60 days. In addition, a public scoping meeting for the project was held on June 6, 2023 to seek input from public agencies, organizations, and the general public regarding the environmental issues and concerns related to implementation of the proposed project.

Further, the public review period for the Draft EIR was conducted pursuant to CEQA to provide interested public agencies, organizations, and individuals with the opportunity to comment on the contents and accuracy of the document. The Notice of Availability was distributed to over 500 agencies, organizations, California Native American tribal contacts provided by the Native American Heritage Commission, and other interested parties, and owners and occupants located within 500 feet of the project site. The Draft EIR was originally circulated for a 50 day-public comment period with a total of five requests for extensions to submit comments resulting in a total review period of 159 days. In addition, a public meeting was held on November 20, 2024 to solicit comments from interested parties on the content of the Draft EIR.

It should also be noted that over the course of the Los Angeles 100% Renewable Energy (LA100) Study, strategic planning processes, and EIR public engagement, LADWP has conducted extensive outreach to ensure transparency, inclusivity, and collaboration. LADWP is committed to working with the community and has consulted with representatives from neighborhood councils, tribal organizations, environmental organizations, business and labor groups, academia and researchers, state agencies and regulators, local city government, the renewable energy industry, among others.

No revisions to the Draft EIR are required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P69

HARBOR ASSOCIATION
OF INDUSTRY & COMMERCE

January 8, 2025

Ms. Jazmin Martin
Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
111 North Hope Street, Room 1044
Los Angeles, CA 90012

RE: Support for Scattergood Draft Environmental Impact Report – Alternative 4

Dear Ms. Martin,

On behalf of the Harbor Association of Industry and Commerce (HAIC), I am writing to express our strong support for the Scattergood Modernization Project, specifically Alternative 4, as outlined in the Draft Environmental Impact Report (DEIR).

HAIC represents a diverse coalition of businesses and industries in the Los Angeles Harbor region. Our mission is to advocate for initiatives that ensure the economic vitality, environmental sustainability, and operational resilience of the harbor community. Reliable and resilient energy infrastructure is foundational to achieving these goals.

The Scattergood Modernization Project, as proposed under Alternative 4, represents a critical step in ensuring the reliability of the Los Angeles power grid while advancing California's environmental objectives. Replacing outdated natural gas-fired generators with state-of-the-art equipment capable of blending up to 30% hydrogen initially, and transitioning to 100% carbon-free hydrogen, will reduce harmful emissions, improve air quality, and align with state and local climate goals. P69-1

The modernization of Generating Station Units 1 and 2 will provide vital energy reliability to the Scattergood service area, supporting key facilities such as Los Angeles International Airport, the Hyperion Water Reclamation Plant, and countless businesses and residences in western Los Angeles. These assets play a critical role in the region's economic and public health infrastructure.

In addition to securing energy reliability, Alternative 4 offers environmental and public health benefits for communities near the Scattergood Generating Station, ensuring that

future energy solutions are cleaner and more sustainable. These upgrades are necessary to maintain economic competitiveness and to protect against grid disruptions during emergencies, such as wildfires and extreme weather events.

For these reasons, HAIC strongly recommends LADWP adopt Alternative 4 for the Scattergood Modernization Project. This proposal strikes a balance between maintaining the reliability of our energy system, supporting our local economy, and safeguarding the health and well-being of our communities. P69-1 cont'd

Thank you for your leadership on this important issue. Please do not hesitate to contact us if you require additional information or further collaboration.

Sincerely,



Henry Rogers
Executive Director
Harbor Association of Industry and Commerce

Comment No. P69

January 8, 2025
Henry Rogers, Executive Director
Harbor Association of Industry and Commerce
6475 E. Pacific Coast Highway, #400, Long Beach, CA 90803

Response to Comment No. P69-1

This comment includes introductory remarks regarding the Harbor Association of Industry and Commerce and describes the association's mission to advocate for environmental and economic goals. The commenter expresses support for the project, specifically for Alternative 4 (Eliminate Vendor B). The commenter states several benefits would result from Alternative 4, including energy reliability and environmental and public health benefits for nearby communities. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P70

SOUTH BAY ASSOCIATION OF
CHAMBERS of COMMERCE

January 8, 2025

Ms. Jazmin Martin
Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
111 North Hope Street, Room 1044
Los Angeles, CA 90012

RE: Scattergood Draft Environmental Impact Report – Support for Alternative 4

Dear Ms. Martin,

On behalf of the South Bay Association of Chambers of Commerce (SBACC), I am writing to express our strong support for advancing the Scattergood Modernization Project via Alternative 4, as described in the Draft Environmental Impact Report (DEIR).

The SBACC represents a coalition of local chambers of commerce dedicated to fostering economic growth and sustainability across the South Bay region. Our members, which include thousands of businesses of all sizes, depend on a reliable and resilient power grid to sustain operations, drive innovation, and serve the broader community.

Generating Station Units 1 and 2 of the Scattergood Generating Station are outdated and in dire need of modernization. Upgrading these units is critical for maintaining the reliability of Los Angeles' electrical power grid, particularly during periods of peak demand and extreme weather events. Without these upgrades, the potential loss of generation capacity could lead to power outages that would significantly impact key facilities such as LAX, the Hyperion Water Reclamation Plant, and major employers across the western districts of Los Angeles.

P70-1

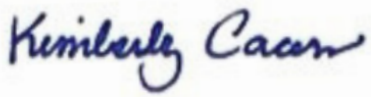
Alternative 4 not only ensures the reliability of the power grid but also aligns with California's ambitious climate goals. By integrating state-of-the-art, fuel-efficient, and cleaner-burning equipment capable of blending up to 30% hydrogen with natural gas—and eventually transitioning to 100% carbon-free hydrogen—Alternative 4 represents a forward-thinking solution to reducing emissions, improving air quality, and supporting public health in surrounding communities.

Additionally, this project underscores LADWP's commitment to advancing sustainable energy solutions while maintaining the economic vitality of the region. Businesses throughout Los Angeles, including those in the South Bay, rely on dependable energy infrastructure to remain competitive and resilient in the face of ongoing challenges.

For these reasons, the SBACC strongly supports the adoption of Alternative 4 as the preferred option for the Scattergood Modernization Project. This essential initiative will safeguard our energy future, support our economy, and contribute to cleaner air for generations to come. P70-1 cont'd

Thank you for your consideration. Please do not hesitate to contact me should you require additional information or wish to discuss this matter further.

Sincerely,



Kimberly Caceres
Board President
South Bay Association of Chambers of Commerce

Comment No. P70

January 8, 2025
Kimberly Caceres, Board President
South Bay Association of Chambers of Commerce
390 W 7th Street, San Pedro, CA 90731

Response to Comment No. P70-1

This comment includes introductory remarks regarding the South Bay Association of Chambers of Commerce and describes the association's goal to support economic growth and sustainability in the South Bay region. The commenter expresses support for the project, specifically for Alternative 4 (Eliminate Vendor B). The commenter states the need for modernization of Scattergood and describes several benefits that would result from implementation of Alternative 4, such as energy reliability, improved air quality, reduced GHG emissions, support for public health, and economic vitality. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P71

Martin, Jazmin

From: Rodney Boone <rodneypaulboone@gmail.com>
Sent: Tuesday, January 14, 2025 2:33 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Public comment re: the Scattergood DEIR

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My name is Rodney Boone. I live in San Pedro with my wife, and we have been LADWP customers for at least 34 years. Thank you for the opportunity to comment on the Scattergood Draft EIR.

I have deep reservations about the plan to convert Scatttergood's Units 1 and 2 to burn a mixture of fossil gas and green hydrogen. I have to say that it really seems like the Federal grant money arrived first and the DEIR was formulated later in order to reject all of the alternatives to hydrogen and methane combustion. It really asks the LADWP, its customers (like us), and people in the greater LA Basin to be guinea pigs in a large-scale experiment regarding hydrogen procurement, distribution, and combustion. The DEIR admits that the technology for green hydrogen is not proven, we don't know when it will be available (and available in the large and reliable amounts required by the project), how it will be manufactured and transported to Scattergood safely and without leaks. The DEIR excludes these issues from the scope of the DEIR, side-stepping these core difficulties with hydrogen, so we do not have any concept of the enormous infrastructure needed for the generation and distribution of green hydrogen for the LA region. This is not the place to "run this experiment" - Los Angeles has some of the worst air quality in the country and hydrogen generates 3-5 times as much NOx as gas plants! P71-1

Another issue is that, instead of closing the obsolete methane-burning Units 1 and 2, these will be redesigned to burn a hydrogen/methane mixture, thus continuing the combustion of methane here in Los Angeles. We know that methane is more than 80 times more powerful as a GHG than CO2, so LADWP's activities will continue to significantly add to our GHG burden. Furthermore, as mentioned above, burning hydrogen causes the emission of NOx, a major component of smog and it generates 3-5x as much NOx as fossil gas. As we know, it can cause and/or exacerbate respiratory and other health problems. P71-2

The cost of the Scattergood conversion project is hugely expensive. It would be far more productive for LADWP to spend its resources on *wholeheartedly* funding the expansion of rooftop solar and batteries for residents and businesses in order to eliminate the need for "peaker" gas plants. P71-3

Thank you again for the opportunity to comment and I hope that you will reject this draft DEIR.

Rodney Boone
2729 Graysby Ave.
San Pedro, CA 90732
rodneypaulboone@gmail.com

Comment No. P71

January 14, 2025
Rodney Boone
2729 Graysby Avenue, San Pedro, CA 90732
rodneypaulboone@gmail.com

Response to Comment No. P71-1

The commenter expresses concern with the proposed project, stating the Draft EIR excludes information regarding the timing, manufacturing, transportation, and overall infrastructure and technology needed for green hydrogen generation. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. The EIR does not address green hydrogen infrastructure to Scattergood because analysis would be speculative and of little informational value at this time, and the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. Regarding timing of the project, the commenter is referred to Section 1.3.4, Construction Schedule, of the Draft EIR which states construction of the project would be estimated to take approximately 3 years to complete, beginning in 2026 and ending in mid-2029. Regarding project costs, the commenter is referred to Chapter 2, Introduction, of the Draft EIR, which states the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P71-2

The commenter asserts that the proposed green hydrogen and natural gas mixture to be used for the project would result in significant GHG emissions through NO_x emissions, exacerbating public health impacts. Regarding air quality and public health concerns, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. The proposed project would not result in adverse health impacts for the public. Regarding GHG emissions, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, which discusses the impacts related to GHG emissions resulting from the project. As analyzed therein, the main source of GHG emissions from project operations would be the CCGS, which would result in higher GHG emissions when run with 100 percent natural gas than a natural gas/hydrogen fuel blend. The project-generated operational GHG emissions would fall below the federal New Source Performance Standard

Subpart TTTT for Greenhouse Gas Emissions for Electric Generating Units and state Senate Bill 1368 standards for all three vendors. Therefore, the project would not result in significant operational GHG emissions. Further, the proposed project's GHG emissions impacts would be consistent with federal, statewide, regional, and local policies, including the California Air Resources Board's 2022 Scoping Plan and the City's Air Quality Element of the General Plan, which are intended to reduce and eventually eliminate GHG emissions from power generation through the use of renewable resources and less-polluting fuels. As such, the project would not conflict with or obstruct regional and state-wide goals to reduce GHG emissions and climate change impacts. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P71-3

The commenter expresses concern with the cost of project implementation and suggests instead investing in solar and battery powered energy solutions. Regarding project costs, the commenter is referred above to **Response to Comment No. P71-1**, which states the purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. Regarding solar and battery solutions, the commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein, under Alternative 2, the proposed CCGS would not be constructed and instead, LADWP would implement a grid-scale battery energy storage system (BESS) to store energy during periods of excess generation to be discharged later during periods of high demand. Although Alternative 2 would eliminate air quality impacts associated with the combustion of fuel during commissioning and operations, the BESS would require substantially more real estate, which would increase the footprint of construction impacts and may be cost-prohibitive and cause substantial delays in implementation of the project. In addition, the BESS would not provide a readily dispatchable, longer duration energy source during periods of critical demand when major interruptions to service occur. Furthermore, energy storage is already accounted for and is a major component in LADWP's 2022 Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. In conclusion, while Alternative 2 would be technically feasible, Scattergood would not have enough space to accommodate a BESS with a comparable generation capacity as the proposed CCGS. Therefore, Alternative 2 was not determined to be the environmentally superior alternative. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P72

Martin, Jazmin

From: Magi Amma <magiamma@magiamma.com>
Sent: Sunday, January 19, 2025 1:41 PM
To: Scattergood_Modernization_Project
Cc: magi amma
Subject: [EXTERNAL] stop LADWP spending $800 million to use 30% Hydrogen in its Scattergood methane power plant

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

I would like to thank LADWP for the opportunity to comment on the Scattergood Draft EIR. I would like to share my concerns about LADWP's plans to retrofit the Scattergood power plant to burn hydrogen.

Scattergood Generating Station in El Segundo is currently a methane power plant owned by LADWP. This plant is one of the four gas plants LADWP owns in the LA-basin. LADWP has plans to convert Scattergood to burn a methane/hydrogen blend and eventually burn 100% hydrogen. The Scattergood Draft EIR evaluates the "Scattergood Modernization Project" which would retrofit the plant to be able to burn up to 30% hydrogen and 70% methane by 2029. P72-1

My concerns:

LADWP's process surrounding the Scattergood project and their overall plans for hydrogen combustion are lacking in many ways.

- LADWP has multiple processes happening simultaneously, including the Scattergood Modernization DEIR, the Strategic Long Term Resource Planning, and an NREL study assessing alternatives to hydrogen. The concurrent processes suggest that LADWP already decided to burn hydrogen in the LA basin before a full and fair evaluation of alternatives has been conducted. P72-2
  - The Scattergood EIR and RFP should be directly informed by the NREL Alternatives to Hydrogen study. P72-3
  - The Strategic Long Term Resource Plan is still considering a no-combustion scenario. Before Scattergood moves forward, the SLTRP Advisory Group should be able to evaluate the SLTRP. P72-4

This project is extremely expensive and is only the first phase to get to 100% hydrogen.

- According to a presentation
- to the City Council, this project alone is estimated to cost $800 million. This cost does not include future retrofits needed to be able to burn 100% hydrogen, the cost of hydrogen fuel itself, or the hydrogen production and transportation infrastructure.
- Due to AQMD Rule 317.1
- the "Clean Air Act Nonattainment fees for 8- Hour Ozone Standard" LADWP will have to pay an additional fee for the NOx emissions from these plants, which will only increase the cost of hydrogen.

P72-5

There is great uncertainty around the availability of hydrogen fuel and there are alternatives to hydrogen combustion that need to be fairly considered.

- Burning 100% hydrogen
- fuel in a power plant has never been done before. LADWP is banking on and investing in a technology that is risky and not proven.
- The DEIR fails to
- consider the uncertainties surrounding hydrogen's future due to technology development, infrastructure needs, and cost. The project proposal uses a 30-year timeline, which unevenly favors combustion technology over other solutions like energy storage by saying
- that the project life span of energy storage is not long enough to meet the project timeline.
- Two of the alternatives
- listed are stated to have reduced environmental impacts: Energy Storage and Green Hydrogen Powered Fuel Cells.
- The DEIR evaluates
- 4-hour Lithium-ion batteries, but should also evaluate other non-emitting long duration energy storage (LDES) technology with longer battery lifespan and charging capacity that would decrease acreage needed for the project.

P72-6

The project scope evaluated in the DEIR is much smaller than the actual impacts of hydrogen infrastructure build out.

P72-7

- The
- DEIR is misleading because it assumes the plant will operate at reduced capacity.
- Project
- baseline does not provide a detailed analysis and assurance that the project will operate at reduced capacity.
- Units
- 1 and 2 are mandated to be retired in 2029 and the DEIR does not properly incorporate this retirement into their assessment.

P72-7 cont'd

- To accurately assess
- cumulative impacts on the LA Basin, LADWP must disclose all pending or active permits/contracts with relevant agencies required for project completion and expand their environmental impact report analysis.

P72-8

This project will cause additional impacts to environmental justice communities.

- Los Angeles is already
- in extreme nonattainment for critical pollutants, including ozone. NOx emissions from hydrogen combustion lead to the creation of ozone and smog. These impacts will exacerbate already poor air quality and disproportionately impact the health of frontline communities
- living near the plant.
- The environmental
- impacts of the project extend beyond the Scattergood gas plant, as hydrogen will need to be made and transported to the facility. Additionally, LADWP is actively evaluating the transition of other in-basin gas plants to hydrogen, which will expand the impacts
- of hydrogen combustion.
- Gas retirement is
- long overdue and transitioning to hydrogen is only building on our existing gas infrastructure that has historically negatively impacted low-income communities of color.

P72-9

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P72-9
cont'd

Comment No. P72

January 19, 2025
Margaret Bollock
magiamma@magiamma.com
160 Peck Terrace, Santa Cruz CA 95062

Response to Comment No. P72-1

The commenter provides introductory remarks and a summary of the proposed project. The comment does not address the adequacy of the Draft EIR, and no further response is required.

Response to Comment No. P72-2

The commenter states the project and plans for hydrogen are lacking and that LADWP has already decided to use hydrogen without a complete evaluation of its use due to the concurrent efforts of the release of the Draft EIR, the LADWP Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan), and the NREL study. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and as specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the Draft EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

In addition, it should be noted that the project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study (LA100 Study),[40] which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources, as described in Chapter 3, Project Description, of the Draft EIR. The LA100 Study, the final report for which was published in 2021, was a multi-year effort undertaken jointly by the NREL and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Across all scenarios, the requirement for firm local generation assets (i.e., located within the Los Angeles Basin) that can be readily dispatched in a controlled manner in response to demand was recognized as essential under a range of foreseeable but unpredictable circumstances that could temporarily limit the supply of renewable energy resources coming into the City. Under such circumstances, firm (i.e., dependable) local generation would be critical to maintaining system resilience and reliability and reducing the risk of power grid collapse.

The commenter is also referred to **Response to Comment Nos. P72-3 and P72-4** for further discussion of the NREL study and SLTRP, respectively.

[40] Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. Available at: https://maps.nrel.gov/la100/la100-study/report.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P72-3

The commenter suggests that the Draft EIR should be informed by the NREL Alternatives to Hydrogen Study. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein, in February 2023, as part of the approval of the Scattergood Modernization Project ordinance, the Los Angeles City Council requested LADWP prepare a study to compare the proposed project to non-combustion alternatives which include fuel cells, energy storage, demand response, and new transmission.[41] On March 4, 2025, the Scattergood Modernization Project Alternatives: Summary of Findings report (NREL Alternatives Report) prepared by NREL[42] was made available to the public. This report supplements the 2021 Los Angeles 100% Renewable Energy Study (LA100 Study), which, as described above, analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. The NREL Alternatives Report considers changes in technologies that have occurred since the completion of the LA100 Study and reevaluates the need for dispatchable capacity at Scattergood. The report compares the proposed project to four non-combustion alternatives (i.e., new and upgraded transmission, energy storage, fuels cells, and demand response) as well as combinations of the above technologies by considering their constructability by 2029, contribution toward reliability, cost, ability to be sited at or near Scattergood, safety, and emissions among other factors. The alternatives considered in the report have been included in the alternatives analysis in the Draft EIR, as presented in Chapter 5, Alternatives to the Proposed Project. As such, the information provided in the Draft EIR is consistent with that of the NREL Alternatives Report. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P72-4

The commenter suggests that the SLTRP (now known as the LA100 Plan) should be evaluated by the Advisory Group before advancing the proposed project. As described in Chapter 3, Project Description, of the Draft EIR, the proposed project has been identified as an integral component of LADWP's 2022 SLTRP,[43] which through involvement with the SLTRP Advisory Group comprised of over 45 stakeholders representing neighborhood councils, academia, community organizations, existing customers, and city and local government, establishes a roadmap for reliable and sustainable electrical power for the City, while also providing the strategy to achieve a carbon-free energy system, relying primarily on renewable solar, wind, and geothermal generation resources as well as large-capacity energy storage facilities. This comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

[41] City of Los Angeles. 2023. Los Angeles City Council Motion 23-0039.

[42] National Renewable Energy Laboratory. 2025. Scattergood Modernization Project Alternatives: Summary of Findings.

[43] Los Angeles Department of Water and Power. 2022. 2022 Power Strategic Long-Term Resource Plan. Available at: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB794970&RevisionSelectionMethod=LatestReleased.

Response to Comment No. P72-5

The commenter states the project would be too expensive and that initial cost estimates do not include future needs and components of the project such as retrofits and hydrogen transportation and infrastructure. The commenter also states that the availability of hydrogen fuel is uncertain due to technology, infrastructure needs, and cost, and that the Draft EIR fails to address these issues. With regard to the commenter's concerns regarding cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. Furthermore, with regard to future needs of the project related to hydrogen, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. This comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P72-6

The commenter states the project unfairly favors the proposed CCGS technology over other alternatives. The commenter suggests the consideration of other non-emitting long duration energy storage (LDES) technologies as an alternative to the project. LDES technologies can be divided into electrochemical energy storage, thermal energy storage, and chemical energy storage. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA. A reasonable range of alternatives to the proposed project were considered based on the objectives of the project and the potential significant impacts identified for the proposed project and as such, the consideration of other alternatives such as LDES technology is not required for the alternatives analysis. Further, the NREL Alternatives Report states that although non-lithium based battery types have the potential to be competitive when deployed at scale for longer-duration applications, the technologies are all in the early demonstration phase without multi-megawatt (MW) installations and multiple years of commercial operation, or without multiple vendors representing a robust supply chain. The report also noted that the total installed capacity of all non-lithium batteries since 2020 is approximately 24 MW, which is substantially lower than the generation capacity of the proposed project. Therefore, the project provided fair consideration of alternatives, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P72-7

The commenter asserts that the Draft EIR is misleading due to the assumption that Scattergood would operate at reduced capacity, and that the project baseline does not provide enough reason to confirm this assumption. The commenter is referred to Section 1.3.3, Project Characteristics, of the Draft EIR, which states that LADWP's in-basin generation units, including the proposed project, are anticipated to be utilized less frequently than under current conditions, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the in-basin units would be used during relatively short-term periods when renewable generation sources and/or transmission assets become unavailable due to emergency circumstances. Therefore, it is anticipated that the proposed project CCGS would be operated at a substantially lower capacity factor (i.e., the ratio of actual generation output to the potential capacity of the generation unit) compared to similar units in service today]. The commenter is referred to **Topical Response No. 5 – Project Baseline Environmental Conditions**. As described therein, a future condition in which Scattergood Units 1 and 2 are no longer operating and the proposed project has not been approved is not a reasonably foreseeable future baseline condition. Based on the imperative nature of power generation from Scattergood to prevent the disruption of the electrical grid in Los Angeles (see **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** regarding Scattergood generation and grid reliability), the shutdown of Units 1 and 2 is predicated not only on the cessation of use of the OTC system but also on the implementation of the proposed project to provide critical generation capacity at Scattergood. Absent the proposed project, the necessity to maintain as much generation capacity at Scattergood as possible would likely require a solution that would enable the continued operations of Units 1 and 2, whether through appeals to further extend the OTC deadline or through the implementation of alternative cooling technologies for the units. Therefore, the Draft EIR provides an adequate analysis with regard to baseline and Units 1 and 2, and no further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P72-8

The commenter requests that LADWP disclose all pending or active permits or contracts with agencies required for project completion and to expand the Draft EIR's analysis to accurately assess cumulative impacts. The commenter is referred to Section 3.6, Required Permits and Approvals, of the Draft EIR, which lists the numerous approvals and/or permits that would be required to implement the proposed project. The environmental documentation for the proposed project would be used to facilitate compliance with federal, state, and local laws and ordinances, as well as granting permits by various federal, state, and local agencies having jurisdiction over one or more aspects of the project. The commenter is also referred to Sections 4.1 through 4.7 of the Draft EIR, which include the cumulative analyses conducted for the assessed environmental topics. The commenter does not provide evidence to support the claim that the Draft EIR's analyses of cumulative impacts are insufficient. Therefore, the commenter's concerns do not address the adequacy of the Draft EIR or identify any information that meets any of the criteria for revisions to or recirculation of the Draft EIR. No further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P72-9

The commenter requests that the Draft EIR be rejected and states that the project would impact environmental justice communities by exacerbating poor air quality and affecting the health of nearby communities. The commenter also states that LADWP is evaluating the transition of other

in-basin gas plants to hydrogen. The commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. Furthermore, with regard to the commenter's concern about air quality and public health, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. Regarding the claim that LADWP is transitioning other gas plants to hydrogen, LADWP's other facilities are not included as part of the proposed project and any future projects would be subject to environmental review specific to its site and future scope. Furthermore, there is no evidence that LADWP is proposing to implement hydrogen infrastructure at the other plants. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P73

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510-967-1066

January 21, 2025

Via Electronic Mail
Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment

Attn: Jazmin Martin
Email: Scattergood_CEQA@ladwp.com

RE: Scattergood Draft Environmental Impact Report

To Ms. Martin, Ms. Rubin, Ms. Hauptman, and Ms. Parker:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project. We are writing to you as two solar development consultants in the San Francisco Bay Area, with over a decade of experience in this field.

We oppose and have great concerns with LADWP's plans to re-engineer Scattergood as a green hydrogen-fueled peaker plant. Instead, we urge you to implement a utility-scale Virtual Power Plant (VPP) and Distributed Energy Resources Management System (DERMS) as a cleaner, highly cost effective, and locally resilient alternative. This is a much better solution than continuing with the aged and highly inefficient peaker plant model that provides zero energy resilience.

P73-1

A Virtual Power Plant will significantly reduce the need for methane or hydrogen powered peaker plants by allowing LADWP to draw upon existing solar arrays and battery electric storage systems (BESS) in the City of Los Angeles. By combining these clean energy sources with an effective demand response program, LADWP can dynamically add electricity from Distributed Energy Resources (DERs) to the grid, while reducing power consumption during peak times across both residential and commercial building heating and cooling systems, as well as electric vehicle chargers. Thus VPPs lower peak demand, reducing the need to activate traditional peaker plants.

We ask LADWP to build upon its experience managing Distributed Energy Resources. LADWP already has several models in place that can be scaled up, and modified as needed, to create a "Virtual Peaker Plant," as follows:

- LADWP's Interconnection Program for NEM (PV), BESS, and Cogeneration Projects is designed to streamline the process for bringing solar arrays and battery systems online; the department describes it as a key strategy to harness local renewable energy resources.
- The Utility Built Solar Program places solar arrays and battery storage at city facilities, which LADWP says will increase the reliability of LA's power grid.
- The Virtual Net Energy Metering (VNEM) Program allows property owners and developers to install solar arrays on multifamily apartment complexes and sell the solar energy to LADWP.

No less than the US Department of Energy and the Federal Energy Regulatory Commission support such a strategy. In its 2024 report, "Pathways to Commercial Liftoff: Virtual Power Plants," the DOE concludes that Virtual Power Plants can be built quicker and at a lower cost than traditional peaker plants. Such a strategy allows utilities to retire some of their older, inefficient peaker plants, or scuttle plans to build new ones.

The Federal Energy Regulatory Commission sought to remove barriers that have slowed the integration of Distributed Energy Resources on the grid with their 2020 Order No. 2222. The rule enables DERs "to participate alongside traditional resources in the regional organized wholesale markets through aggregations. . ." FERC says the order will lower costs while increasing grid flexibility and resilience.

P73-1 cont'd

To summarize:

- VPPs can dynamically adjust the power consumption of DERs, while also contributing power to the grid at key times, effectively lowering peak demand and reducing the need to activate peaker plants.
- Compared to building and operating an entirely new hydrogen system for the proposed Scattergood project, VPPs can be a more cost-effective solution for managing peak demand.
- VPPs provide greater grid flexibility to respond rapidly to changing demand patterns by integrating numerous DERs.
- By reducing the need to fire up a methane-hydrogen peaker plant, VPPs can help clean the air of the neighborhoods that have borne the brunt of pollution, while lowering greenhouse gas emissions that are contributing to the climate crisis.

We urge LADWP to make the best decision for the climate, air quality, ratepayers, resilience, and safety by NOT converting the Scattergood Generating Station into burning hydrogen and methane. We instead urge LADWP to invest in today's much more cost-effective and resilient peak energy solutions featuring VPPs and DERMS, and thus retire the Scattergood Generating Station.

Thank you for the opportunity to comment on the Scattergood Draft EIR.

Sincerely yours,

Greg Thomson

Bradley Cleveland

Comment No. P73

January 21, 2025
Greg Thomson, Founder, Green Solutions & Technologies
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Response to Comment No. P73-1

The commenters introduce themselves as solar development consultants. The commenters express opposition to the project and recommend the implementation of a utility-scale Virtual Power Plant (VPP)[44] and Distributed Energy Resources Management System (DERMS).[45] The commenters state the VPP and DERMS would be a cleaner, cost effective, and locally resilient alternative to the proposed CCGS, claiming the CCGS would not provide energy resilience. The commenters describe the potential benefits of the VPP and DERMS, including the lowering of peak demand, the provision of greater grid flexibility, and improved air quality and greenhouse gas (GHG) emissions impacts. The commenters request that LADWP modify and expand existing programs such as LADWP's Interconnection Program, Utility Built Solar Program, and Virtual Net Energy Metering Program, to create a VPP.

The commenter is referred to Section 1.2, Project Background, of the Draft EIR, which states the following:

> LADWP has identified the proposed project as integral to the goal of implementing a carbon-free energy system providing reliable and sustainable electrical power for the City of Los Angeles (City). Based on findings in the Los Angeles 100% Renewable Energy Study prepared by National Renewable Energy Laboratory and LADWP as well as the 2022 Power Strategic Long-Term Resource Plan prepared by LADWP, the continued availability of local energy generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area is necessary to maintain the resilience and reliability of the City's electrical power grid. LADWP's Scattergood Generating Station (Scattergood) has been identified as the most immediate and instrumental location in relation to the requirement for firm (i.e., dependable) in-basin generation capacity due to the projected demand for energy in areas of the City that Scattergood serves.

Accordingly, the proposed project is critical to ensuring the resilience of the local energy grid. The commenter is also referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.5.1 of the Draft EIR, alternative in-basin clean energy generation is a part of LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and already being implemented by LADWP, which includes multiple solar photovoltaic programs to generate carbon-free, renewable energy for its power grid, such as those described by the commenter. Though local distributed renewable generation can be rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide

[44] A Virtual Power Plant (VPP) is a network of decentralized, medium-scale power generating units as well as flexible power consumers and storage systems.

[45] A distributed energy resources management system (DERMS) is a software platform which helps mostly distribution system operators manage their grids that are mainly based on distributed energy resources.

reliability and resilience under all circumstances. Nonetheless, distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented. The commenter is further referred to **Response to Comment No. P93-13**. As discussed therein, in summary, LADWP supports expanding VPP and distributed energy resources capabilities as complementary, emission-reducing resources, but current evidence does not support treating them as a technically equivalent or fully deliverable substitute for firm in-basin generation needed to maintain reliability under California Independent System Operator (CAISO), North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) criteria. LADWP finds that VPPs, long duration energy storage technologies, and demand side management programs are strategic complements that enhance flexibility, lower emissions, and support customer participation. At present, these resources do not provide the firm, location-specific capacity required to ensure N-1 reliability within the Westside.

Accordingly, no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P74

Martin, Jazmin

From: Catherine Ronan <cmronan@gmail.com>

Sent: Monday, January 27, 2025 5:37 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Public comment re Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project DEIR

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Re: Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project DEIR

No Project Alternative

The proposed project will **increase** Scattergood's overall capacity from 830 MW to 879.2 MW (after the OTC Units 1 and 2 are decommissioned.) Is this necessary? Do we even need a new 346 MW fossil fuel burning unit at Scattergood? Is the "No Project Alternative" option the best one?

The DEIR states that "based on the projected expansion of renewable resources in the LADWP system, the proposed project CCGS would be operated less frequently, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity." This claim is repeated numerous times throughout the DEIR. The DEIR also references, numerous times, a "substantially lower capacity factor" than the current 25% without actually quantifying it. This raises the question of why a new gas power plant is being planned with even **more** capacity than the OTC units (1 and 2) it is replacing. (346 MW vs 296.8 MW.) When you take into account that there are also four other relatively new units operating at Scattergood with a combined capacity of 533.2 MW (Units 4,5,6 and 7), and, apparently, no plan to decommission them, one wonders whether the new units are really needed. P74-1

The DEIR states that the No Project Alternative "would not meet most of the project objectives for establishing a resilient, reliable, always available and dispatchable generation source for the LADWP electrical power system local to the Scattergood area". Is that correct? Scattergood, after decommissioning Units 1 and 2 will still have Units 4,5, 6 and 7. Don't we already have a "resilient, reliable, always available and dispatchable generation source for the LADWP electrical power system local to the Scattergood area." With demand projected to decrease, we would need a solid case to replace Units 1 and 2.

Shouldn't LADWP, as residents were promised, be taking fossil fuel burning plants out of production not increasing capacity? https://www.dailynews.com/2019/02/12/los-angeles-to-close-3-power-plants-in-aggressive-move-toward-green-energy/ P74-2

It's impossible to evaluate this question given the dearth of data in the DEIR about current and planned usage.

- How often and at what duration are the various units currently operated? How many MW are produced daily and at what times? P74-3
- Can you quantify "operated less frequently"? P74-4
- The current capacity figure is given as 25%. What is the proposed capacity factor?
- Are the gas burning units operating for fewer hours and at lower capacity than they have in the past? If so, how much lower? P74-5
- How much is peak demand? What is it projected to be in the future? P74-6

- Does usage of Scattergood correlate closely with peak demand periods? How closely? P74-6 (cont'd)
- What projects are planned to reduce peak demand? Has progress been made? P74-7
- Have greenhouse gas emissions from Scattergood declined? P74-8
- What are they projected to be if the project is built?
- Can this data be made available on LADWP's website? If not, why not? P74-9

LADWP believes that Scattergood will be needed primarily for times when peak usage exceeds available renewable resources. However, the DEIR fails to provide an analysis of how and to what extent peaks could be reduced using a combination, for instance, of in-basin battery storage, hydrogen fuel cells, distributed solar paired with batteries, microgrids, and demand response using time-of-use pricing. Could the problem of providing power at times of peak demand be solved without building a brand new 346MW fossil fuel burning power unit? P74-10

The DEIR rejects the "No Project Alternative" without providing data demonstrating that LADWP needs to replace Units 1 and 2 with even **more** capacity than it currently has given that it is projecting **less** frequent usage. Overall, the rejection of the No Project Alternative is deficient in that it makes sweeping general statements without providing the data and thorough analysis needed to make its case.

Burning Hydrogen at Scattergood

LADWP acknowledges that the "necessary infrastructure for the production, delivery, and storage of green hydrogen needed to support the Proposed Project currently does not exist." https://www.ladwp.com/community/construction-projects/west-la/scattergood-generating-station-units-1-and-2-green-hydrogen-ready-modernization-project LADWP believes that a "sufficient market supply of green hydrogen may be available by 2029". Green hydrogen, if available, is anticipated to be an expensive fuel source. Moreover, it has not been shown that more than a 30% hydrogen/methane mix is feasible and it is well known that burning hydrogen to produce electricity is extremely inefficient, increases NOX emissions and is not an effective use of hydrogen. (https://rmi.org/we-need-hydrogen-but-not-for-everything/) P74-11

This raises the question of why a hydrogen-ready unit would even be considered at this point. What is the extra cost? Could these dollars be used more effectively elsewhere? Aren't there more effective and important clean energy initiatives that LADWP could work on rather than latching on to burning hydrogen to produce electricity? The NREL LA 100 study noted that hydrogen production "would benefit greatly from a robust RD&D program at the financial scale of national and international initiatives rather than a single city's budget." (https://www.nrel.gov/docs/fy21osti/79444-ES.pdf)

LADWP should take a wait and see posture regarding hydrogen combustion which, at this stage, appears to be yet another false solution.

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Comment No. P74

January 27, 2025
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Response to Comment No. P74-1

The commenter questions the Draft EIR's assessment that Alternative 1 – No Project would not meet most of the project objectives for establishing a resilient, reliable, always available and dispatchable generation source for the LADWP electrical power system local to the Scattergood area. The commenter questions whether the proposed project's addition of 346 megawatts (MW) to Scattergood's capacity is necessary as there are four other units in operation.

The commenter is referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**. As described therein, while LADWP accelerated its shift toward a more sustainable future, the foundational responsibilities of reliability, affordability, and safety for its customers remain unchanged. The proposed project was identified to address three converging factors:

- Retirement of Scattergood Units 1 and 2, effectively mandated by the once-through cooling (OTC) policy, which will create an energy capacity deficit due to transmission bottlenecks in LADWP's West Los Angeles Service Area (Westside)
- Electric-grid reliability needs, with specific risks being accelerated by climate change in the form of heat waves, wildfires, and unprecedented storms
- Regulatory compliance, as required by the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) standards

As also described in the topical response, LADWP's electric system must be designed to withstand the loss of its largest local generator without causing a blackout, a condition known as an "N-1 outage." However, in a scenario where the Westside load exceeds import capacity, while facing reduced local generation due to retirements or outages, there will not be enough power available to meet demand, as would be the case if the proposed project is not implemented. To maintain grid stability and avoid widespread power failures in such a scenario, it may be necessary to implement controlled reductions in electricity usage, known as "load shedding," in accordance with regulatory standards.

LADWP published its Local Capacity Technical (LCT) analysis report in 2021, which is the most recent report available. The performance criteria and methodology were coordinated with the California Independent System Operator (CAISO) to use a similar metric as was used as part of CAISO's Local Capacity Studies, which also analyze critical system events in accordance with the North American Electric Reliability Corporation (NERC) Transmission Planning (TPL)-001 reliability standard. The LCT evaluated the relationship between LADWP's West Los Angeles Service Area (Westside) load, transmission capacity constraints, and Scattergood generation. The LCT showed that the amount of generation required from Scattergood will increase due to projected Westside load growth. The aggregate system peak demands for the LADWP service area analyzed in the LCT were between 6,895 MW to 7,239 MW, which resulted in a generation capacity deficit at Scattergood ranging from 254 MW to 350 MW, depending on available transmission capacity serving the Westside.

The proposed project was sized at 346 MW because multiple studies have indicated the need for this additional capacity at Scattergood (assuming the retirement of Units 1 and 2) based on Westside demand (which will continue to increase in future years) and the limited transmission capacity serving the Westside. In addition to normal projected growth in demand, there are also

numerous large-load interconnection requests to LADWP totaling several hundred MW in the Westside. The 346 MW capacity of the proposed project was determined to provide reliability and flexibility under the uncertainty of load growth, unforeseen delays for other projects, and potential transmission and generation asset outages such as due to emergencies and/or maintenance and repair. Alternative 1 – No Project would lead to critical customer outages in the area during periods of peak demand or during losses of imported energy under emergency circumstances, which is directly contrary to project objectives. Without adequate Scattergood generation, NERC reliability criteria would require planned and controlled customer outages at strategic locations to avoid risk of uncontrolled widespread blackouts. Furthermore, NREL's independent analysis following the Los Angeles 100% Renewable Energy Study[46] (LA100 Study) confirmed that no fundamental changes to the LADWP power system have altered their conclusion that new, dispatchable capacity is needed to replace the retiring Scattergood Units 1 and 2. As such, the project's power generation is necessary, as detailed in **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**, and utilizing only Units 4, 5, 6, and 7 at Scattergood would not support grid reliability.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-2

The commenter questions whether LADWP should remove fossil fuel-burning plants from production and not increase capacity, as residents were promised according to a 2019 *Los Angeles Daily News* article. It should be noted that the article describes an initiative of the City's previous mayor, and the comment does not specifically address the Draft EIR. In addition, it should be noted that the project has been identified by LADWP based on the findings and recommendations contained in the LA100 Study, which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources, as described in Chapter 3, Project Description, of the Draft EIR. The LA100 Study, the final report for which was published in 2021, was a multi-year effort undertaken jointly by the NREL and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Across all scenarios, the requirement for firm local generation assets (i.e., located within the Los Angeles Basin) that can be readily dispatched in a controlled manner in response to demand was recognized as essential under a range of foreseeable but unpredictable circumstances that could temporarily limit the supply of renewable energy resources coming into the City. Under such circumstances, firm (i.e., dependable) local generation would be critical to maintaining system resilience and reliability and reducing the risk of power grid collapse.

The commenter states that their question is impossible to evaluate given the lack of data on current and planned usage in the Draft EIR. The commenter's specific concerns are bulleted in the subsequent Comment Nos. P74-3 through P74-9. Refer to **Responses to Comments Nos. P74-3 through P74-9** for specific responses to such concerns.

[46] Cochran, Jaquelin, and Paul Denholm, eds. 2021. The Los Angeles 100% Renewable Energy Study. Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-79444. Available at: https://maps.nrel.gov/la100/la100-study/report.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-3

The commenter asks how often and at what duration are the various units currently operated and how many megawatts are produced daily and when.

The commenter is referred to Chapter 3, Project Description, of the Draft EIR for details regarding existing operations. As described therein, Scattergood currently includes six operating generation units, which have a combined gross generation capacity of 830 MW. Specifically, Units 1 and 2 together currently provide 296.8 MW of gross generation capacity (111.8 MW for Unit 1 and 185 MW for Unit 2). Units 4 and 5, which operate in tandem as a CCGS, currently provide a total gross generation capacity of 321.6 MW (214.4 MW for the Unit 4 combustion-turbine generator and 107.2 MW for the Unit 5 steam-turbine generator). Units 6 and 7, which are simple-cycle generation systems, currently have a total gross generation capacity of 211.6 MW (105.8 MW for Unit 6 and 105.8 MW for Unit 7). Units 6 and 7 provide rapid response capability in terms of starting, ramping up and down, and shutting down to follow changes in demand for electrical energy, which increases overall system efficiency.

Together, Units 4, 5, 6, and 7 currently have a combined gross generation capacity of 533.2 MW. They replaced the generation capacity of the since demolished Unit 3, which had a gross generation capacity of 460 MW. To enable the increase of 73.2 MW (i.e., from 460 MW to 533.2 MW), the generation capacity of Unit 1 was physically and permanently reduced by an equivalent amount, resulting in the existing gross generation capacity of 111.8 MW.

Generation at Scattergood on a daily basis varies widely depending on demand for energy and other factors. This can range from low levels of generation used to regulate voltage levels in the electrical system and maintain grid integrity to high levels of generation unit operation to meet customer demand. On peak demand days in summer, all or nearly all the generation units may come online at various times, with peak use occurring late in the day, when demand often increases at the same time renewable sources of power, such as solar generation, wane. The various units differ in their ability to react to changes in demand, with Units 1 and 2, which are legacy steam-boiler units, requiring the greatest lead time to reach start and reach normal operations. The existing CCGS (Units 4 and 5), consisting of a modern combustion turbine generator paired with a steam turbine generator, has significantly greater load following capabilities and can provide substantial power to help meet large peaks in demand. The simple-cycle gas turbines (Units 6 and 7), while providing significantly less capacity than the CCGS, provide the quickest response and load following capability and are, therefore, generally brought online during periods of peak daily demand.

The comment does not address the adequacy of the Draft EIR. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-4

The commenter quotes the phrase “operated less frequently” and asks for its quantification. The commenter notes that the current capacity figure is given as 25 percent and asks for the proposed capacity factor.

The commenter is referred to the capacity factor discussion in **Response to Comment No. A3-6**. As detailed therein, based on the baseline emissions of CO_2e from Units 1 and 2, the proposed project could operate at annual capacity factors of 7.85 to 9.85 percent (depending on the selected

vendor) and not exceed the CEQA threshold of significance of 10,000 MT per year increase in CO_2e emissions. Furthermore, the proposed project could operate at annual capacity factors of 7.09 to 8.94 percent (depending on the selected vendor) and not result in any increase in CO_2e emissions. The following context of the future use of in-basin generation units should also be noted, as discussed on page 3-10 of Section 4.3, Greenhouse Gas Emissions, of the Draft EIR):

> Historically, these in-basin generation units, including Scattergood, have provided a substantial proportion of the City's energy on a daily and annual basis. However, based on the projected expansion of renewable resources in the LADWP system, the proposed project CCGS would be operated less frequently, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the dispatchable power generation provided by the proposed CCGS would be critical during stressed grid conditions that may be caused by low-probability, but high impact events when the renewable generation resources and/or transmission assets become unavailable due to emergency circumstances (e.g., the temporary loss of critical renewable energy transmission lines caused by wildfire or earthquake). Stressed grid conditions may also result from sustained periods of low renewable generation or transmission line maintenance and upgrades which can be exacerbated if they coincide with periods of high electricity demand.

As indicated in the 2022 LADWP Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan), although the use of in-basin generation, including the proposed project, in the LADWP system would continue in order to maintain system reliability and resilience, the actual usage would be generally minimal and primarily for backup. As shown on page 4-37 of the SLTRP, under the base planning case which provides for 80 percent renewable resources by 2030, the capacity factor for combustion generation, whether using natural gas or hydrogen fuel, would be in the low single digits after 2030. Under the SB 100 case, which provides for 60 percent renewable resources by 2030 and which was used as a conservative assumption in the Draft EIR, this capacity factor would likely increase because of the lower availability of renewables. However, except under rare emergency circumstances requiring a more extended period of operation, the annual capacity factor for the proposed project is projected to remain below the capacity factors for vendors indicated above, which reflect the baseline GHG emissions from Units 1 and 2.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-5

The commenter asks whether the gas-burning units are operating for fewer hours and at a lower capacity than in the past and, if applicable, how much lower of a capacity.

The North American Electric Reliability Corporation (NERC) maintains the Generating Availability Data System (GADS), which compiles information about the performance of electrical generation systems and supports equipment availability analysis. All NERC-registered entities, including LADWP, must report generation operating information for all conventional units (i.e., combustion units) greater than 20 MW in capacity. Annual generation activity at Scattergood dating from 2017 (when Unit 3 came offline and Units 4, 5, 6, and 7 began operation) through 2023 ranged from a low of 11,758 service hours (1,237,335 MW net actual generation, 18.1 percent net capacity factor) to a high of 16,477 service hours (1,992,875 MW net actual generation, 28.97 percent net capacity factor). The generation capacity for these years is summarized in Table 1, below.

Table 1
Annual Generation Activity at Scattergood
2017–2023

Year	Net Actual Generation	Service Hours	Net Capacity Factor
2017	1,992,875	16,477	28.97%
2018	1,778,637	15,096	25.93%
2019	1,237,335	11,758	18.1%
2020	1,689,492	16,490	24.71%
2021	1,791,892	17,216	26.28%
2022	1,875,406	16,103	27.51%
2023	1,342,038	12,164	19.69%

The comment does not address the adequacy of the Draft EIR. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-6

The commenter asks about the existing and future projection of peak demand and how Scattergood correlates with peak demand periods. The commenter is referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** and **Response to Comment No. P74-1**, which provide a detailed explanation that addresses the commenter's concerns. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-7

The commenter asks about projects that are planned to reduce peak demand and their progress. While the comment does not address the adequacy of the proposed project's Draft EIR, the commenter is referred to **Topical Response No. 4 – Alternatives** of the Final EIR and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR. As described therein, LADWP proposes increasing demand side management programs in the LADWP Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan), including energy efficiency to reduce total energy consumption and demand response to reduce peak demand for energy. While demand side management programs would help reduce greenhouse gas (GHG) emissions through the reduction in overall energy demand, they would not meet the other project objectives. Specifically, demand side management programs would not help maintain a reliable electrical power system to meet peaks in demand or major interruptions caused by emergency circumstances because such programs target basic demand reduction and rely on customer behavior. Even if the demand-response goals from the SLTRP are met or exceeded, the resulting resources would not supply firm generation capacity in the Los Angeles basin. As such, demand response is a valuable conservation strategy, but it is not a reliable source of firm dispatchable generation necessary during outages of LADWP's primary carbon-free generation and/or transmission system. Aggressive demand-side management has been accounted for in the need for the proposed project and is currently being implemented by LADWP. Demand side management is complementary to the proposed project and will continue as planned whether or not the project is implemented. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-8

The commenter asks if GHG emissions from Scattergood have declined and asks for the projection during operation. As described in Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, electrical generation that serves a distribution grid is part of the California energy system, and a comparison of direct emissions from an individual generation unit does not adequately assess the impact to GHG emissions because of the need to consider electrical generating efficiency on a system-wide basis. As noted in Chapter 3, Project Description, of the Draft EIR, LADWP has reduced GHG emissions (preliminarily 66 percent below the 1990 emissions baseline as of 2023) through a combination of replacing coal-fired generation, adding more efficient combustion generation, expanding energy efficiency, and increasing renewable energy.[47] As of 2023, an estimated 39.5 percent of electricity procured to serve LADWP's retail customers was sourced from eligible renewable energy resources, a figure that excludes certain existing carbon-free energy resources, such as large hydro power and nuclear generation.

With regard to GHG emissions during operation, as discussed in Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, the GHG emissions from the proposed project would be offset by reductions in emissions from other less efficient generation units whose output would be displaced. Therefore, the established GHG threshold applicable to the proposed project operation is the baseload performance standard from SB 1368 of 1,100 pounds CO_2 per MWh-Net[48] and the federal New Source Performance Standard Subpart TTTT for Greenhouse Gas Emissions for Electric Generating Units (NSPS TTTT) of 1,000 pounds CO_2 per MWh-Gross.[49] As detailed in Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, the main source of GHG emissions from project operations would be the CCGS, which would result in higher GHG emissions when run with 100 percent natural gas than a natural gas/hydrogen fuel blend. Table 4.3-3 of the Draft EIR shows the project-generated operational GHG emissions by vendor assuming 100 percent natural gas. Gross emissions under all three vendors would fall below the established federal GHG threshold applicable to the proposed project, the NSPS TTTT of 1,000 pounds CO_2 per MWh-Gross. Net emissions under all three vendors would fall below the established state SB 1368 GHG threshold applicable to the proposed project, 1,100 pounds CO_2 per MWh-Net. Therefore, as concluded in the Draft EIR, operational GHG emissions would be less than significant. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-9

The commenter asks if the data from their questions can be made available on LADWP's website. The commenter requests an explanation if such data cannot be made available on LADWP's website. The information is not available on LADWP's website. However, the commenter is referred to the U.S. Energy Information Administration's (EIA) Electricity Data Browser and Form EIA-923 (Power Plant Operations Report), which provide publicly available data on net generation and other operational parameters: https://www.eia.gov/opendata/browser/electricity/facility-fuel. When filtering by facet on the webpage, Scattergood Generating Station is listed under Plant ID 404 and Operator Code 11208. While operating hour data is not directly reported, it can be inferred from available generation and capacity data. No further response is required. Accordingly,

[47] LADWP. 2022. 2022 Power Strategic Long-Term Resource Plan.

[48] California Public Utilities Commission. PUB Sets GHG Emissions Performance Standard to Help Mitigate Climate Change News Release. Docket #R.06-04-009. Available at: https://docs.cpuc.ca.gov/word_pdf/NEWS_RELEASE/63997.pdf.

[49] 40 CFR Part 60 Subpart TTTT. Available at: https://www.ecfr.gov/current/title-40/part-60/subpart-TTTT.

the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-10

The commenter states that the Draft EIR fails to provide an analysis of how and to what extent peaks could be reduced using a combination of various renewables and demand response programs. The commenter is referred to **Response to Comment 74-7**, which addresses such concerns in detail. The commenter also expresses concerns regarding the Draft EIR's assessment of Alternative 1 – No Project, as also described in Comment No. P74-1. The commenter is referred to **Response to Comment No. P74-1** and **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability,** which addresses such concerns in detail. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P74-11

The commenter expresses concern regarding the use of green hydrogen, specifically related to its cost. The commenter also critiques the efficiency of hydrogen as a fuel source and the generation of NO_x emissions, citing an article from the Rocky Mountain Institute. The commenter inquires if there are more effective clean energy alternatives to hydrogen and states that hydrogen combustion is a false solution.

With regard to the concern about cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

With regard to the concern about efficiency of hydrogen and NO_x emissions, the commenter is first referred to Chapter 3, Project Description, of the Draft EIR. As discussed therein, Scattergood Units 1 and 2 are conventional natural-gas-fired steam boiler generators with aging technology that are less fuel efficient and, therefore, emit more air pollutants and GHGs than modern generation units. The proposed CCGS would consist of a combustion-turbine generator and a steam-turbine generator operating in tandem. When compared to the existing steam-boiler Units 1 and 2, the proposed CCGS would substantially increase fuel efficiency, thereby also reducing the emission of air pollutants and greenhouse gases relative to the amount of energy produced. Furthermore, with regard to NO_x emissions, as noted in Section 3.3.2 of the Draft EIR, all combustion units at Scattergood use Selective Catalytic Reduction (SCR), a post-combustion control technology for reducing NO_x emissions. Additionally, as described in Section 3.5.1.1 of the Draft EIR, the proposed CCGS would use a combination of processes to control air pollutant emissions, including dry burner technologies for the combustors in the combustion turbines and a SCR system to reduce the NO_x emissions and comply with SCAQMD requirements.

As detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied,

and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

With regard to the question of more effective clean energy alternatives, the commenter is referred to **Topical Response No. 4 – Alternatives** for a summary of alternatives discussed in the Draft EIR. The majority of renewable energy alternatives considered in the Draft EIR would not be anticipated to provide a comparable generation capacity as the proposed CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. For example, a grid-scale BESS alternative was evaluated and determined to not provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's SLTRP (now known as the LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Furthermore, the development of alternative clean energy generation is already being implemented by LADWP through multiple solar PV programs to generate carbon-free, renewable energy for its power grid. Although the development of distributed local solar generation is technically feasible and represents a means of achieving some objectives similar to those of the proposed project, because of its intermittent and variable nature, it would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. In addition, distributed energy does not represent an effectively feasible alternative to the proposed project because its implementation has already been accounted for in the assessment of the need for the project. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

Additionally, as also addressed in **Response to Comment No. P74-4** and **Topical Response No. 4 – Alternatives**, demand response is a valuable conservation strategy, but it is not a reliable source of firm dispatchable generation necessary during outages of LADWP's primary carbon-free generation and/or transmission system. Aggressive demand-side management has been accounted for in the need for the proposed project and is currently being implemented by LADWP. Demand side management is complementary to the proposed project and will continue as planned whether or not the project is implemented.

No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P75

VENICE
Chamber of Commerce
est.1905

January 27, 2024

Los Angeles Department of Water and Power
Corporate Environmental affairs
Environmental Planning and Assessment
Attn: Jazmin Martin
111 North Hope Street, Room 1044
Los Angeles, CA 90012

RE: Scattergood Draft Environmental Impact Report

Dear Ms. Martin,

I'm writing on behalf of The Venice Chamber of Commerce.

We are in support of advancing the Los Angeles Department of Water and Power's Scattergood Modernization Project via Alternative 4 of the Draft Environmental Impact Report. Modernizing Scattergood will support the reliability of the Los Angeles power grid, improve air quality, advance California's climate goals, and eliminate the use of ocean water to cool the power plant.

The Modernization Project is essential for the continued availability of local energy generation that can be dependably and rapidly deployed in Scattergood's service area, which includes LAX, Hyperion Water Reclamation Plant, UCLA and the western districts of Los Angeles. A reliable grid with dispatchable power is critical to keeping the lights on for homes, schools and businesses on the westside, especially during situations such as wildfires and extreme heat waves. P75-1

What's more, the Modernization Project will have significant environmental benefits to communities surrounding the facility in Playa del Rey.

Scattergood's current generators were constructed in the late 1950s and use outdated technology that is inefficient and emits more air pollutants and greenhouse gases than modern units. The Modernization Project would significantly reduce harmful emissions, leading to cleaner air and improved public health for the communities near Scattergood.

Currently, Scattergood uses a process of Once-Through-Cooling, where water is drawn from the ocean, used for cooling, and immediately discharged back into the ocean. This is incredibly harmful to marine life, and California has adopted a policy requiring coastal power plants like Scattergood to phase out its use. The Modernization Project will eliminate this process at Scattergood and support healthy marine life off the coast of Los Angeles.

Additionally, we are pleased that LADWP is planning to operate the new generation system with a minimum of 30 percent hydrogen by volume and has plans to use up to 100 percent hydrogen by 2035. Hydrogen emits no carbon dioxide when used, meaning blending it with natural gas and eventually converting to 100 percent clean, renewable hydrogen would significantly reduce our reliance on fossil fuels and result in lower carbon emissions at Scattergood.

For all these reasons, The Venice Chamber of Commerce supports the adoption of Alternative 4. Modernizing Scattergood using state-of-the-art, fuel efficient, and cleaner-burning generation equipment will lead to cleaner air, healthier oceans, and will support the region's electric reliability and resiliency needs.

Thank you for your consideration. Please do not hesitate to reach out if you require additional information.

P75-1
cont'd

Sincerely,

Karin Wallerstein

Karin Wallerstein

CEO

Venice Chamber of Commerce

Comment No. P75

January 27, 2025
Karin Wallerstein, CEO
Venice Chamber of Commerce

Response to Comment No. P75-1

The commenter expresses support for the project on behalf of the Venice Chamber of Commerce, specifically for Alternative 4 (Eliminate Vendor B). The commenter lists the benefits of the proposed project, such as improved reliability of the City's power grid, improved air quality, advancement of climate goals, and the elimination of the once-through cooling (OTC) system. The commenter also states the project would reduce reliance on fossil fuels and result in lower carbon emissions. It is to be noted that the implementation of the proposed project would have no bearing on the requirement to cease operation of the OTC system, which is separately required under the SWRCB's OTC Policy, as described in Section 3.2.1 in the Project Description of the Draft EIR. Similarly, the decision regarding the final disposition of the OTC system facilities within the lease areas is unrelated to the implementation of the proposed project. As this comment does not address the adequacy of the Draft EIR, no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P76

BEFORE THE LOS ANGELES
DEPARTMENT OF WATER AND POWER

Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project

COMMENTS OF VOTE SOLAR AND SOCIETY OF NATIVE NATIONS
ON THE CALIFORNIA ENVIRONMENTAL QUALITY ACT
DRAFT ENVIRONMENTAL IMPACT REPORT
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29 January 2025

Dear Los Angeles Department of Water and Power (LADWP),

Vote Solar's mission is to accelerate the deployment of local solar solutions through smart rate design, transparent and predictable compensation for customers generating solar energy, and simplified ways of connecting local solar to the grid. For nearly twenty-five years, Vote Solar has engaged in front of public utility commissions, including the California Public Utilities Commission (CPUC). There is a lot of good work ahead, and Vote Solar appreciates the opportunity to assist decision-makers in evaluating policies to incentivize an open and accessible Distributed Energy Resources (DERs) future where small-scale energy resources are situated near sites of electricity use, such as rooftop solar panels and battery storage. Expanding DERs is changing the way electricity is generated, how it is traded, delivered and consumed.

The Society of Native Nations (SNN) is an organization founded by a small group of Native people in Texas with members in many states including California who are dedicated to advocating for our people and the earth by helping to protect and preserve our native culture, spirituality, teachings, medicine, and way of life. Each of our founding members has experience working with our people and other organizations that bring a unique set of values and perceptions to SNN. Exposure and witness to racism, appropriation, and exploitation of our way of life have compelled each of us to stand united against social and environmental injustice. Our teachings tell us the Creator tasked Native people to be the "keepers of the earth." We believe we are environmentally conscious through our DNA and because our lifeways and culture parallel the health of Mother Earth. Through ancestral memories, prayer, and determination, we strive to help bring a positive change to our people and Mother Earth. P76-1

Society of Native Nations (SNN) is a United Nations Environment Programme (UNEP) accredited non-governmental organization (NGO) dedicated to amplifying Indigenous perspectives and traditional knowledge in the global fight for environmental protection. We believe that Indigenous communities hold invaluable wisdom and solutions for addressing the climate crisis and creating a more sustainable world.

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the Scattergood Generating Station Units 1 & 2 Green Hydrogen-Ready Modernization Project. As representatives of organizations focused on environmental justice, equity, and clean energy solutions, **we must strongly oppose the proposed project** and urge LADWP to reconsider its approach in favor of safer, more equitable, and truly sustainable alternatives such as DERs and Virtual Power Plants (VPPs). P76-2

Ignored Equity and Tribal Concerns

The DEIR and associated public outreach have grossly failed to account for the perspectives and consent of communities that will be disproportionately impacted by this project. Specifically:

1. **Lack of Tribal Consultation:** Despite the documented presence of Gabrielino-Tongva and Kizh Nation tribal cultural resources in the project area, no meaningful consultation was conducted. Ignoring these critical voices violates principles of free, prior, and informed consent, as outlined in international human rights standards. P76-3
2. **Poor Public Engagement:** The November 20 public meeting highlighted LADWP's deficient outreach and inclusion efforts. Translators provided inaccurate Spanish interpretations, including the egregious misrepresentation of "power" as "poder," undermining effective and accurate communication. Moreover, LADWP failed to provide notices through bill inserts or direct emails to ratepayers and affected residents, excluding vulnerable communities from engaging meaningfully in the process. As a balancing authority, LADWP should also notify any resident who might not be P76-4

a ratepayer but would likely be affected by this project. The meeting on November 20 was recorded on Zoom, but LADWP stated the recording would only be used for internal purposes, which compounds the lack of transparency.

3. **Failure to Translate Public Comments:** During the public meeting, Spanish-language comments were not translated into English, further marginalizing Spanish-speaking community members and violating equity principles.

P76-4 cont'd

Environmental Risks and Misrepresentation

This is not a modernization project; it is a regression project. The draft Environmental Impact Report isn't even finalized, the public hasn't had a fair opportunity to evaluate or provide input on the environmental consequences of this plan.

Moving forward without completing the outreach undermines public trust and transparency. The project's purported goal of transitioning to a green hydrogen-ready system is fraught with significant risks and unanswered questions:

1. **Hydrogen and Methane Blending:** The project will likely rely heavily on methane, with hydrogen blending capped at 30% initially and no guaranteed pathway to 100% hydrogen use by 2035. This undermines claims of a carbon-free future while perpetuating reliance on fossil fuels.

P76-5

2. **Storage and Safety Hazards:** Critical details about hydrogen storage remain redacted[1] [2] or vague. Hydrogen's flammability and explosive potential, especially near critical infrastructure like Los Angeles International Airport (LAX) and the Hyperion Water Treatment Plant, pose unacceptable risks to public safety. Historical failures, including fires exacerbated by gas infrastructure during emergencies, emphasize these dangers. With the climate crisis intensifying, we must make safe and strategic choices about the fuels stored/piped near densely populated areas. Hydrogen is not a safe option—it poses unnecessary risks that could worsen emergencies such as urban fires, mudslides, or earthquakes.

P76-6

3. **Water Source for Green Hydrogen:** The DEIR fails to address the water source needed for green hydrogen production. Given California's historic water woes, this omission is deeply concerning and irresponsible.

P76-7

Deficient Alternatives Analysis

The DEIR's analysis of project alternatives fails to fully explore the potential of clean, distributed solutions:

P76-8

1. **Overlooking Distributed Energy Resource (DER) Potential:** The DEIR dismisses DERs and VPPs as viable alternatives despite their proven ability to enhance grid

[1] Assessment of Underground [Hydrogen] Storage in Oil and/or Gas Reservoirs https://www.socalgas.com/sites/default/files/2022-07/Phase1%E2%80%93Appendix4%E2%80%93UndergroundStorageAssessment.pdf

[2] Hydrogen Pipeline Study prepared for SoCalGas https://www.socalgas.com/sites/default/files/SPECServicesPhase1-Report.pdf

reliability, reduce costs, and avoid localized pollution and safety risks.[3] [4] [5] LADWP's investments in local solar and battery storage demonstrate the feasibility of these technologies.[6]

2. **Ignoring Community Benefits of DERs:** DERs prioritize equity by enabling vulnerable and disadvantaged communities to access clean energy, reduce utility costs, and enhance resilience. These benefits align more closely with LADWP's stated goal of transitioning to 100% renewable energy by 2035.
3. **Virtual Power Plants as a Solution:** VPPs are a much better solution than hydrogen for meeting Los Angeles' energy needs especially when we meet our electrification goals. By aggregating and managing distributed energy resources such as rooftop solar, battery storage, and demand response systems, VPPs can provide a cleaner, safer, and more resilient alternative to combustible fuels. Unlike hydrogen, which requires costly infrastructure and poses significant safety risks, VPPs are proven technologies that are ready for immediate deployment and can scale efficiently to meet energy demand.
4. **Misrepresenting Renewables and Promoting Combustible Sources for Resiliency:** During the November 20 meeting, LADWP claimed that "while renewable energy and storage are essential to meet our decarbonization goals, they alone cannot achieve full decarbonization." This statement is factually incorrect. Deploying Virtual Power Plants (VPPs) can help achieve full decarbonization without relying on combustible alternatives such as fossil fuels, biofuels, and hydrogen. Moreover, according to a Regenerate California report,[7] gas plants underperform during periods of stress, leading to emissions spikes that create significant climate and public health risks. Continuing to prioritize these outdated technologies over proven clean energy solutions compromises the safety and well-being of communities while delaying the necessary transition to a truly sustainable and resilient energy system.

P76-8 cont'd

5. **Ignoring the track record of handling combustible fuels:** LADWP exposed predominantly low-income communities and people of color to harmful emissions from the Valley Generating Station for three years. Meanwhile, its partner and largest customer, SoCalGas, was responsible for the worst methane blowout in U.S. history. If a similar disaster were to occur at Scattergood, it would be the visitors of Dockweiler Beach—again, mostly people of color—who would bear the consequences.

P76-9

Economic and Social Justice Implications

Investing in hydrogen-based systems wastes valuable time, money, and resources, all of which will ultimately be borne by ratepayers. Electrification powered by local and community solar, paired with storage solutions, offers a far more effective and equitable path forward. Localized solar generation

P76-10

[3] RMI, Virtual Power Plant Partnership **Meeting Summer Peaks: The Need for Virtual Power Plants** https://rmi.org/wp-content/uploads/dlm_uploads/2024/06/VPP_reliability_brief.pdf?utm_source=chatgpt.com
[4] NREL **Virtual Power Plants and Energy Justice** https://www.nrel.gov/docs/fy24osti/86607.pdf
[5] RMI **Virtual Power Plants,Real Benefits** https://rmi.org/wp-content/uploads/dlm_uploads/2023/01/virtual_power_plants_real_benefits.pdf
[6] LADWP **LADWP Celebrates Clean Energy Milestone at the Eland Solar-plus-Energy Storage Center** https://www.ladwpnews.com/ladwp-celebrates-clean-energy-milestone-at-the-eland-solar-plus-energy-storage-center/
[7] CALIFORNIA'S UNDERPERFORMING GAS PLANTS How Extreme Heat Exposes California's Flawed Plan for Energy Reliability https://ceja.org/wp-content/uploads/2023/06/2023-Regenerate-Heat-Wave-Report.pdf

reduces reliance on centralized, combustible fuel systems and enhances grid resilience. Community-driven solar and battery initiatives can be implemented at a lower cost while delivering superior reliability, safety, and equity benefits. By failing to prioritize these approaches in the DEIR, LADWP misses a crucial opportunity to accelerate the transition to clean energy while protecting ratepayers from unnecessary financial burdens.

P76-10 cont'd

Recommendations

We urge LADWP to:

1. **Reject the Current Proposal:** Halt the Scattergood modernization project and cease plans reliant on combustible fuels.
2. **Center Equity and Tribal Consent:** Conduct comprehensive tribal consultations and improve public outreach with accessible, accurate translations and engagement strategies tailored to disadvantaged communities.
3. **Invest in Proven Non-Combustible Alternatives:** Prioritize DERs and VPPs, which offer cleaner, safer, and more equitable energy solutions. Invest in the Los Angeles Clean Tech Incubator (LACI) Clean Energy 2028 Targets that include building electrification, clean distributed generation and energy-transportation nexus plus grid efficiency & resiliency.[8]
4. **Integrate VPPs into the Draft EIR:** Include VPPs as a key alternative in the DEIR, highlighting their potential for Los Angeles to eliminate its reliance on combustible fuels. VPPs can provide cost-effective, scalable, and resilient solutions that benefit all communities and ensure a smoother transition to 100% renewable energy.
5. **Reevaluate Safety and Environmental Impacts:** Fully disclose hydrogen storage plans, especially near critical infrastructure (like LAX airport and the Hyperion Water treatment plant) and associated risks while addressing water sourcing concerns for green hydrogen production.

P76-11

Conclusion

The Scattergood Modernization Project represents a costly and dangerous regression rather than a step forward. LADWP has the opportunity to lead California's clean energy transition through innovative, distributed solutions that enhance resilience, protect vulnerable communities, and align with climate goals. We urge LADWP to seize this opportunity by rejecting this flawed proposal and adopting a more equitable and sustainable path forward.

Vote Solar and Society of Native Nations appreciate the opportunity to offer comments on this DEIR.

Sincerely,

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[8] **LACI Clean Energy 2028 Roadmap** https://laincubator.org/wp-content/uploads/2024/06/laci-cep-roadmap-2028.pdf

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Comment No. P76

January 29, 2025
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Response to Comment No. P76-1

This comment includes introductory remarks for Vote Solar and the Society of Native Nations. This comment does not specifically address the adequacy of the Draft EIR, and no further response is required.

Response to Comment No. P76-2

The commenters express opposition to the project and support for alternatives such as Virtual Power Plants (VPP) and distributed energy resources (DER). A VPP is a system of DERs (e.g., rooftop solar panels, electric vehicle chargers, and smart water heaters) that work together to balance energy supply and demand on a large scale. The commenters are referred to Section 1.2, Project Background, of the Draft EIR, which states the following:

> LADWP has identified the proposed project as integral to the goal of implementing a carbon-free energy system providing reliable and sustainable electrical power for the City of Los Angeles (City). Based on findings in the Los Angeles 100% Renewable Energy Study prepared by National Renewable Energy Laboratory and LADWP as well as the 2022 Power Strategic Long-Term Resource Plan [SLTRP] prepared by LADWP, the continued availability of local energy generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area is necessary to maintain the resilience and reliability of the City's electrical power grid. LADWP's Scattergood Generating Station (Scattergood) has been identified as the most immediate and instrumental location in relation to the requirement for firm (i.e., dependable) in-basin generation capacity due to the projected demand for energy in areas of the City that Scattergood serves.

Accordingly, the proposed project is critical to ensuring the resilience of the local energy grid. The commenter is also referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.5.1 of the Draft EIR, alternative in-basin clean energy generation is a part of LADWP's 2022 Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and already being implemented by LADWP, which include multiple solar photovoltaic programs to generate carbon-free, renewable energy for its power grid, such as those described by the commenter. Though local distributed renewable generation may be rapidly developed and achieve some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Therefore, an in-basin clean energy alternative was dismissed from further consideration in the Draft EIR. Additionally,

distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

The commenter is further referred to **Response to Comment No. P93-13**. As discussed therein, in summary, LADWP supports expanding VPP and distributed energy resources capabilities as complementary, emission-reducing resources, but current evidence does not support treating them as a technically equivalent or fully deliverable substitute for firm in-basin generation needed to maintain reliability under California Independent System Operator (CAISO), North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) criteria. LADWP finds that VPPs, long duration energy storage technologies, and demand side management programs are strategic complements that enhance flexibility, lower emissions, and support customer participation. At present, these resources do not provide the firm, location-specific capacity required to ensure N-1 reliability within the Westside.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-3

The commenters state that meaningful consultation was not conducted with the Gabrielino-Tongva and Kizh Nation tribes. The commenters are referred to Section 4.6, Tribal Cultural Resources, of the Draft EIR. In accordance with LADWP's CEQA Tribal Consultation Policy and Assembly Bill (AB) 52, LADWP provided notification about the proposed project to nine tribes identified by the Native American Heritage Commission (NAHC) as being traditionally or culturally affiliated with the geographic region surrounding the project site, and therefore, possibly possessing knowledge about potential tribal cultural resources that could be affected by the project. In response to this notification, the Gabrieleño Band of Mission Indians–Kizh Nation (Kizh Nation) and the Gabrielino Tongva Indians of California (Gabrielino Tongva), requested consultation with LADWP under AB 52 regarding potential impacts of the project. LADWP held formal consultation meetings with each of these two tribes to discuss the scope of the project and the project site's extensive development history. The entire project site is built upon, hardscaped, or otherwise disturbed, and the project area is located on an artificially flat area composed of fill soils. Additionally, 3.5 million cubic feet of sand was removed and relocated to nearby beaches to clear the site when the plant was originally constructed circa 1958, indicating that the project site has low sensitivity for buried archaeological resources. As discussed with the consulting tribes, Cultural Resources Awareness Training and procedures for Inadvertent Discovery of a Tribal Cultural Resource will be implemented as described in the Mitigation Monitoring and Reporting Program (Appendix A of the Final EIR). Tribal consultation closeout letters summarizing consultation efforts and outcomes were sent to each of the consulting tribes to conclude tribal consultation under AB 52 and CEQA.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-4

The commenters state that the public engagement process for the Draft EIR was inadequately conducted. The commenters state that there were inaccurate Spanish interpretations and lack of Spanish to English translations. The commenters also state that LADWP did not send bill inserts or email communication with ratepayers or provide a recording of the public meeting. The commenters reiterate their concerns, stating that the public did not have fair opportunity to provide input on the Draft EIR. The commenters are referred to Section 1.3, CEQA Environmental Process, of this Final EIR. As stated therein, the public review period for the Draft EIR was

conducted pursuant to CEQA and its implementing guidelines. It is to be noted that providing notices through bill inserts or emails to all ratepayers and residents or a recording of the public meeting is not required as part of the CEQA guidelines for the public review process. The purpose of the public review period is to provide public agencies, organizations, and individuals with the opportunity to comment on the contents and accuracy of the document. The Draft EIR was originally circulated for a 50 day-public comment period from October 31, 2024, to December 20, 2024. A total of five requests for extensions to submit comments were granted, extending the public review and comment period until April 7, 2025. As a result, the Draft EIR was circulated for public review for a total of 159 days.

The Draft EIR and the Notice of Completion were distributed to the California Governor's Office of Planning and Research, State Clearinghouse (renamed to the Office of Land Use and Climate Innovation as of July 1, 2024) and were also filed and posted by the Los Angeles County Registrar-Recorder/County Clerk. Legal Notices were published in the *Los Angeles Times*, *El Segundo Herald*, and *Torrance Daily Breeze*. A Notice of Availability (NOA) was distributed to over 500 agencies, organizations, California Native American tribal contacts provided by the Native American Heritage Commission, and other interested parties, and owners and occupants located within 500 feet of the project site, informing the public of where the Draft EIR could be reviewed and how to comment. The NOA and Draft EIR were made available for review online at http://www.ladwp.com/envnotices and at the following locations: LADWP Corporate Environmental Affairs Department, El Segundo Public Library, and the Los Angeles Central Library.

A public meeting was held during the Draft EIR public review period to solicit comments from interested parties on the content of the Draft EIR. Information regarding the public meeting was included in the NOA, which was widely distributed, as described above. The meeting was held online on a Zoom meeting on November 20, 2024. Spanish translators were available for the duration of the meeting and provided live translation of the meeting for interested participants. Comments provided by Spanish-language speakers during the verbal comment period of the meeting were transcribed and recorded, and were later translated from the transcription and recording in order to ensure accuracy. For all comments received during the virtual public meeting, the commenters are referred to **Chapter 2, Responses to Comments on the Draft EIR**, in this Final EIR, which includes the translation of Spanish comments received. No further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-5

The commenters state that the project would perpetuate reliance on fossil fuels without a guaranteed pathway to use 100 percent hydrogen fuel by 2035. While the commenter does not specifically address the adequacy of the Draft EIR, it should be noted that the project does not propose 100 percent hydrogen combustion. As proposed, the CCGS would be capable of operating on a fuel mixture of natural gas and a minimum of 30 percent hydrogen by volume. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-6

The commenters state that the project would pose risks related to fires, mudslides, or earthquakes. The commenters are referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, which state the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA 2, Hydrogen Technologies Code, and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

Furthermore, as described in the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, the project site is not located within an Alquist-Priolo Earthquake Fault Zone or other known fault zone.[50,51] The proposed project facilities would be designed and constructed in compliance with the latest version of the City of Los Angeles Building Code and other applicable local, state, and federal codes to minimize impacts related to fault rupture and seismic ground shaking. In addition, a site-specific geotechnical analysis for the project site would be prepared prior to construction to provide design recommendations related to seismic criteria. Therefore, impacts related to potential adverse effects from the rupture of a known earthquake fault and impacts related to strong seismic ground shaking would be less than significant.

As discussed in the project's Initial Study (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR, the project site is not located within a City designated liquefaction area. While portions of the project site are mapped as potential landslide hazard areas, geotechnical investigations were undertaken and portions of the slope within the landslide hazard area were modified with the construction of retaining walls, which eliminated the potential for seismically induced slope failure. Similarly, the proposed project would utilize retaining walls to reduce any impacts related to landslides. A site-specific geotechnical analysis would also be prepared prior to construction to provide project design recommendations in

[50] California Department of Conservation. 2022. CGS Seismic Hazards Program: Alquist-Priolo Fault Hazard Zones. Available at: https://gis.data.ca.gov/maps/ee92a5f9f4ee4ec5aa731d3245ed9f53/about. Accessed October 2023.

[51] U.S. Geologic Survey. 2022. Quaternary Fault and Fold Database of the United States. Interactive Map. Available at: https://doi.org/10.5066/F7S75FJM. Accessed October 2023.

accordance with all applicable local, state, and federal codes. Therefore, impacts related to landslides would be less than significant.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-7

The commenters state the Draft EIR does not address the water source needed for green hydrogen production. The commenters are referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-8

The commenters state that the Draft EIR does not adequately analyze the potential of clean, distributed solutions including DERs and VPPs. The commenters state that such solutions would prioritize equity, reduce utility costs, improve resilience, and the VPPs would provide a cleaner, safer, and more resilient alternative, reiterating their support for these alternative technologies. The commenters are referred to **Topical Response No. 4 – Alternatives**, **Response to Comment No. P76-2**, and **Response to Comment No. P93-13,** which address the commenters' concerns. No further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-9

The commenters claim LADWP has historically exposed disadvantaged communities to emissions from the Valley Generation Station and refer to a methane release event by SoCalGas. The commenters state that if similar events would occur with the project, they would disproportionately impact disadvantaged communities. The commenters are referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenters are also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

No further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-10

The commenters state issues with the burden of costs on ratepayers for hydrogen, and instead suggest solar and storage alternatives, stating the Draft EIR did not prioritize such alternatives. Regarding cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

Regarding the consideration of solar and storage alternatives, the commenter is referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in the Draft EIR, under Alternative 2, the proposed CCGS would not be constructed and instead, LADWP would implement a grid-scale battery energy storage system (BESS) to store energy during periods of excess generation to be discharged later during periods of high demand. Although Alternative 2 would eliminate air quality impacts associated with the combustion of fuel during commissioning and operations, the BESS would require substantially more real estate, which would increase the footprint of construction impacts and may be cost-prohibitive and cause substantial delays in implementation of the project. In addition, the BESS would not provide a readily dispatchable, longer duration energy source during periods of critical demand when major interruptions to service occur. Furthermore, energy storage is already accounted for and is a major component in LADWP's 2022 SLTRP (now known as the LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. As such, while Alternative 2 would be technically feasible, Scattergood would not have enough space to accommodate a BESS with a comparable generation capacity as the proposed CCGS. Furthermore, although local distributed renewable generation can be relatively rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented. The NREL Alternatives Report further affirms that adding such variable renewable generation resources cannot meet the reliability requirements of the proposed project (e.g., provide electricity for multiple hours in a row [at least 10 hours] and for multiple days in a row during late summer afternoons and into the evening). No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P76-11

The commenters reiterate their request that the Draft EIR be rejected and provide a summary of their concerns and recommendations. The commenters are referred to **Response to Comment Nos. P76-2** through **P76-10** above, for responses to specific concerns. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P77

LAX COASTAL
CHAMBER OF COMMERCE

9100 S. Sepulveda Blvd., Ste. 210
Los Angeles, CA 90045
Phone 310.645.5151 FAX 310.645.0130
www.laxcoastal.com

January 29, 2025

Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
Attn: Jazmin Martin
111 North Hope Street, Room 1044
Los Angeles, CA 90012
RE: Scattergood Draft Environmental Impact Report

Dear Ms. Martin,

On behalf of the LAX Coastal Chamber of Commerce, I write to express my support for advancing the Los Angeles Department of Water and Power's Scattergood Modernization Project via Alternative 4 as described in the Draft Environmental Impact Report.

Serving the communities of Westchester, Marina del Rey, Playa Vista, Playa del Rey, Ladera Heights, and surrounding areas of Los Angeles, the LAX Coastal Chamber of Commerce promotes business and enhances the vitality of our community through member services, educational programs, strategic partnerships, community outreach, and legislative advocacy.

Generating Station Units 1 and 2 of the Scattergood Generating Station are in dire need of modernization. Upgrading the aging Generating Station Units will maintain and enhance the reliability of the Los Angeles power grid, support our local economy, and advance California's climate and environmental goals.

P77-1

The Scattergood Modernization Project is essential for the continued availability of local energy generation that can be dependably and rapidly dispatched, thus maintaining the reliability of Los Angeles' electrical power grid. Failure to move forward with Alternative 4 would result in a loss of generation capacity that could lead to imminent outages in the Scattergood Generating Station's service area. This would not only impact my business, but could also disrupt key facilities such as LAX, Hyperion Water Reclamation Plant, UCLA and greater western districts of Los Angeles.

This is a risk our city cannot afford to take, as a reliable local grid with dispatchable power is critical to keeping the lights on for the thousands of businesses that support our economy, especially during situations such as wildfires and extreme heat waves.

What's more, the Scattergood Modernization Project will have significant climate and environmental benefits. By upgrading the Generating Station Units to operate on a minimum of 30 percent hydrogen by volume, Alternative 4 would significantly reduce harmful emissions, leading to cleaner air and improved public health for the communities near Scattergood and supporting city- and statewide climate goals.

For these reasons, the LAX Coastal Chamber of Commerce strongly recommends the adoption of Alternative 4. Modernization of Generating Station Units 1 and 2 using state-of-the-art, fuel-

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efficient, and cleaner-burning generation equipment will meet the region's electric reliability and resiliency needs, support our economy, and lead to cleaner air.

P77-1
cont'd

Thank you for your consideration. Please do not hesitate to reach out if you require additional information.

Sincerely,

Chad Maender
President/CEO
LAX Coastal Chamber of Commerce

Comment No. P77

January 29, 2025
Chad Maender, President/CEO
LAX Coastal Chamber of Commerce
9100 S. Sepulveda Boulevard, Suite 210, Los Angeles, CA 90045
(310) 645-5151

Response to Comment No. P77-1

The commenter provides introductory remarks and expresses support for the project on behalf of the Los Angeles International Airport (LAX) Coastal Chamber of Commerce, specifically for Alternative 4 (Eliminate Vendor B). The commentor lists the benefits of the proposed project, including improved reliability of the City's power grid, support of the City's economy, and the advancement of California's climate and environmental goals. The commenter states that absence of the project would result in disruption of local businesses and key facilities within the City. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P78

Martin, Jazmin

From: Erica Molina <ericamopt@gmail.com>
Sent: Wednesday, January 29, 2025 10:32 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] hydrogen power concerns

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

My name is Erica Molina and I live in Hollywood, CA (LADWP rate payer). I'm concerned about LADWP's plans to retrofit the Scattergood Generating Station to burn hydrogen. The plans to retrofit Scattergood to expand hydrogen power across Los Angeles are not aligned with community demands for a real community driven solution to the climate crisis or environmental justice principles. This risky project is highly water intensive, highly volatile, and would worsen air quality, which would further endanger public health. I urge you to reject this Draft EIR and to instead pursue alternatives such as the implementation of a grid-scale battery energy storage system. P78-1

Climate Impacts

- **Water**
  - Hydrogen is too water intensive to be a viable climate solution, especially in a state like California that is already experiencing drastic weather extremes from historic megadrought to major flooding.
  - Not only is water needed to produce the hydrogen itself, but the process also requires vast quantities for cooling, treatment and disposal. Scattergood would require 122 million gallons of *demineralized* water by 2045.
  - Los Angeles would be better off investing in renewable energy generation, which would significantly reduce this water footprint.

P78-2

- **Air Quality**
  - Hydrogen burned for electricity generation can produce six times more nitrous oxides than natural gas. Nitrous oxides are harmful pollutants that can cause respiratory illness and contribute to the formation of smog.
  - When hydrogen enters the atmosphere it is more potent than CO2 in the short term and can increase the greenhouse gas effect of methane in the upper atmosphere, making the climate impacts worse on a faster timeline.
  - Most of the NOx emissions from Scattergood would go into South LA where low income communities and people of color live, adding to the environmental racism they have endured.

P78-3

- **Fossil fuel dependency**
  - Despite claims that hydrogen is the future, Big Oil plans to use hydrogen to keep the dirty gas flowing.
  - Hydrogen won't redeem fracked gas power plants. Corporations prefer gas turbines that burn hydrogen to fuel cells in part because of "fuel flexibility"— in other words, they want to keep using "natural" gas. Hydrogen is a backdoor for natural gas-produced energy to remain in the grid.

P78-4

Public Health Impacts

- **Leakage**
  - The higher pressures necessitated by hydrogen may exacerbate leakage. Since hydrogen has only one-third the energy of methane (by volume), delivering the same amount of energy through current pipelines would require significantly raising the operating pressure. Even the best-designed pipes are prone to leaks when added supply increases operating pressure on local distribution lines.
- **Flammability**
  - Hydrogen is **14 times as flammable** as gas. Static electricity, friction, heat and electrical fields can all ignite it. Moreover, hydrogen can burn backward into pipes, creating high-pressure explosions that can throw shrapnel and even destroy buildings.
- **Air pollution**
  - Burning hydrogen, whether at homes, industrial facilities, or in power plants, may have significant air pollution impacts. Burning hydrogen, whether pure or mixed, raises nitrogen oxide levels (NOX) even more than gas alone, with studies showing how just 5 percent hydrogen in residential natural gas raised NOx emissions by an average of 8 percent compared to traditional gas.

P78-5

P78-6

Ratepayer Impacts

- The Scattergood retrofit is estimated to be $800 million, but that does not include the cost of the hydrogen fuel itself nor the required transportation infrastructure. At a time when Angelenos are struggling with rising costs and their utility bills, a costly project of this magnitude for unproven technology would burden ratepayers.

P78-7

Critical Infrastructure Impacts

- Scattergood is in very close proximity to LAX airport and the Hyperion water treatment plant. If there is any problem with hydrogen in terms of flammability and/or an explosion, critical infrastructure could be severely impacted, as Los Angeles would be economically impacted too, not only with the potential of losing billions of dollars recently invested, but even more dangerous, Angelenos having sewage backing up into their homes with nowhere to go, and some sewage going straight into the ocean untreated.
- After the recent urban fires, it would be highly irresponsible to develop a new network of pipelines throughout SoCal to get even more explosive fuel feeding generating stations that allegedly would only be used a few days out of the year.

P78-8

Thank you!

Comment No. P78

January 29, 2025
Erica Molina
ericamopt@gmail.com

Response to Comment No. P78-1

The commenter introduces their concerns with the proposed project, stating the project would be highly water intensive, would adversely impact air quality and public health, and would not support climate goals or environmental justice principles. The commenter also requests the consideration of alternatives such as the implementation of a grid-scale BESS. The commenter is referred to **Response to Comment Nos. P78-2** through **P78-8** below for detailed responses to each concern.

Response to Comment No. P78-2

The commenter states hydrogen production and other processes at Scattergood is too water intensive to be a viable climate solution. The commenter states that an alternative of renewable energy generation would reduce water use compared to the proposed project.

The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen. Regarding potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR. As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis. Therefore, the commenter's claim regarding the amount of water necessary for the project is not substantiated by evidence.

Regarding renewable energy alternatives, the commenter is referred to **Topical Response No. 4 – Alternatives** for a summary of alternatives analyzed in the Draft EIR which include renewable energy alternatives. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented.

No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P78-3

The commenter states that the NO_x emissions resulting from the burning of hydrogen and the project would negatively impact nearby environmental justice communities and public health. The commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as

"…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). The surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. Furthermore, with regard to the commenter's concern about air quality and public health, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. The proposed project would not result in adverse health impacts for the public. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P78-4

The commenter claims corporations are using hydrogen expansion to conceal the continued use of natural gas. However, the commenter does not provide evidence to support these claims and does not specifically address the adequacy of the Draft EIR. Furthermore, as discussed in the Initial Study prepared for the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. This comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P78-5

The commenter expresses concern with the leakage of pipes delivering hydrogen and the flammability of hydrogen. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project impacts related to the on-site hydrogen system during operation were analyzed. In addition, as discussed in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be

required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P78-6

The commenter states the burning of hydrogen would result in significant air quality impacts due to NO_x emissions. The commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which determined that mass emissions of all criteria pollutants from construction, except for NO_x, would be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should also be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P78-7

The commenter expresses concern with the cost of project implementation and future costs related to hydrogen, stating increased costs would impact ratepayers. Regarding costs, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. Furthermore, with regard to future needs of the project related to hydrogen, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would

instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. This comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P78-8

The commenter expresses concern with the proximity of Scattergood's project site to critical infrastructure such as LAX and the Hyperion Water Treatment Plant due to risks with flammability or explosivity. The commenter expresses opposition to the construction of hydrogen pipelines in light of the recent wildfires in the City. The commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, as summarized in **Response to Comment No. P78-5** above. As discussed therein, LADWP would not implement or operate the infrastructure that transports hydrogen to Scattergood. In addition, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation, and proposed project facilities would be designed and constructed in compliance with the latest version of the City of Los Angeles Building Code and other applicable local, state, and federal codes to minimize impacts and ensure safety. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P79

Martin, Jazmin

From: Faith Myhra <famyhra@gmail.com>
Sent: Wednesday, January 29, 2025 4:34 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Public Comment on the Scattergood Green Hydrogen-Ready Modernization Project Draft EIR

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Dear LADWP and Decision-Makers,

My name is Faith Myhra, and I live in Mar Vista. I strongly oppose LADWP's plan to retrofit the Scattergood Generating Station to burn hydrogen. This project is not a real climate solution—it is a dangerous false solution that will increase pollution, drive up costs for ratepayers, and prolong Los Angeles' dependence on fossil fuels. The Draft Environmental Impact Report (EIR) fails to address critical environmental and public health risks, and I urge you to reject it. P79-1

Climate and Environmental Justice Impacts

Water Consumption and Misuse

Hydrogen production is extremely water-intensive, a major concern in a state like California where water scarcity is an ongoing crisis. By 2045, the Scattergood project is estimated to require 122 million gallons of freshwater or 612 million gallons of saltwater. This excessive use of water for an experimental energy source is reckless, especially when compared to renewable energy options that have a far lower water footprint. The EIR fails to adequately analyze these impacts, making this project unacceptable. P79-2

Increased Air Pollution and Health Risks

The claim that burning hydrogen is a clean solution ignores the reality that hydrogen combustion releases nitrogen oxides (NOx) at levels up to six times higher than burning natural gas. NOx emissions are a major contributor to smog and respiratory diseases, disproportionately harming frontline communities already suffering from industrial pollution. P79-3

Additionally, leaked hydrogen in the atmosphere increases the greenhouse effect of methane, worsening climate change rather than mitigating it. P79-4

Hydrogen is a Backdoor for Continued Fossil Fuel Use

LADWP promotes hydrogen as a step toward a clean energy future, but in reality, this project would continue reliance on fossil fuels. Hydrogen combustion technology allows for fuel blending, meaning LADWP can still burn natural gas alongside hydrogen. This loophole benefits fossil fuel corporations while delaying real climate action. P79-5

Public Safety and Infrastructure Risks

Hydrogen is Highly Flammable and Dangerous

Hydrogen is 14 times more flammable than natural gas, making it a serious safety hazard. The risk of leaks, explosions, and pipeline ruptures increases significantly with hydrogen infrastructure. Unlike natural gas, hydrogen flames are invisible, making leaks harder to detect and respond to. The EIR does not adequately address these safety risks. P79-6

Hydrogen Pipelines are a Major Risk for Leaks

Hydrogen's small molecular size makes it far more prone to leakage than natural gas. Existing pipeline infrastructure is not designed to safely transport hydrogen, and new infrastructure would be costly and prone to failure. Additionally,

hydrogen is an indirect greenhouse gas—when released into the atmosphere, it disrupts the natural balance of methane, amplifying the warming effect of this potent greenhouse gas. Even small leaks can accelerate climate change, undermining any supposed environmental benefits of hydrogen combustion. The EIR does not account for these serious climate risks. P79-6 cont'd

Ratepayer Impacts and Cost Concerns

An Unproven, Expensive Experiment at the Expense of Ratepayers

The Scattergood retrofit is estimated to cost $800 million, and that does not even include the cost of hydrogen fuel or new transportation infrastructure. At a time when Angelenos are struggling with high energy bills and cost-of-living increases, LADWP is proposing an expensive, unproven technology that will drive up utility costs with no guarantee of success. P79-7

Renewable Energy and Storage Are Cheaper and More Effective

Instead of investing in a costly and risky hydrogen project, LADWP should focus on grid-scale battery storage and expanded wind and solar infrastructure. Direct electrification is more efficient, safer, and cost-effective than hydrogen combustion. P79-8

Reject This EIR – Demand Real Climate Solutions

LADWP must reject this hydrogen combustion project and invest in real clean energy solutions that do not pollute our air, endanger communities, or burden ratepayers. I urge you to:

1. Reject the Draft EIR for the Scattergood Green Hydrogen-Ready Modernization Project.
2. Prioritize investments in grid-scale battery storage and renewable energy expansion.
3. Adopt a just transition plan that does not rely on false hydrogen solutions that continue fossil fuel dependency.

P79-9

Thank you for considering my comments. I urge LADWP to make choices that truly protect Angelenos and our climate.

Sincerely,

Faith Myhra
Pronouns: she/they
LA, 90066
famyhra@gmail.com
Writing from the traditional, ancestral, and unceded territory of the Tongva, Kizh, and Chumash People.

Comment No. P79

January 29, 2025
Faith Myhra
famyhra@gmail.com

Response to Comment No. P79-1

The commenter expresses opposition to the proposed project and lists their concerns, stating the project would increase pollution, costs for ratepayers, and extend the City's dependence on fossil fuels. The commenter states the Draft EIR did not address environmental and public health risks, and requests the Draft EIR be rejected. As the commenter expands on each concern listed, refer to **Response to Comment Nos. P79-2** through **P79-9** below for individual responses to each concern.

Response to Comment No. P79-2

The commenter states hydrogen production is water intensive and that the EIR did not adequately analyze impacts related to water usage. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen. Regarding potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis. Therefore, the commenter's claim of the amount of water necessary for the project is not substantiated by evidence, and the Draft EIR provides adequate analysis for the project's water usage. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P79-3

The commenter states the burning of hydrogen, primarily due to NO_x emissions, would disproportionately impact environmental justice communities living near the project site.

With regard to NO_x emissions, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which determined that mass emissions of all criteria pollutants from construction, except for NO_x, would be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and

unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should also be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

The commenter is also referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. As such, the project would not result in disproportionate impacts to environmental justice communities.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P79-4

The commenter states hydrogen leaks would result in adverse impacts related to GHG emissions and climate change. As discussed in Section, 4.4, Hazards and Hazardous Materials, of the Draft EIR, the project's hydrogen pipelines would be designed, constructed, operated, and maintained to account for the hydrogen embrittlement of carbon and low alloy steels and other materials. The project's hydrogen system would undergo extensive testing and inspection prior to operation and after completion of examinations and repairs to ensure hydrogen leaks would not occur. Tests would include, but not be limited to, hydrostatic leak tests, pneumatic leak tests, and sensitive leak tests. In addition, hydrogen gas and fire detectors and sensors would be installed to detect gas leakages, sound alarms, and/or activate shutdown if needed. Therefore, through compliance with regulatory requirements of the National Fire Protection Association (NFPA) 2 and the American Society of Mechanical Engineers (ASME) B31.12 and the standards outlined in CGA G-5.4. the project's on-site hydrogen operational activities would not create significant hydrogen leakage that has the potential to indirectly increase GHGs in the atmosphere.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P79-5

The commenter claims the project promotes the use of hydrogen but would actually continue reliance on fossil fuels. However, the commenter does not specifically address the adequacy of the Draft EIR. Furthermore, as discussed in the Initial Study prepared for the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P79-6

The commenter states the safety risks associated with hydrogen, including leaks, explosions, and pipeline ruptures, and asserts pipeline leaks would lead to adverse impacts related to GHG emissions and climate change. The commenter states the Draft EIR did not adequately analyze these risks. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project impacts related to the on-site hydrogen system during operation were analyzed in the Draft EIR. In addition, as discussed in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the NFPA 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the ASME B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA 2, Hydrogen Technologies Code, and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P79-7

The commenter expresses concern with the cost of the project and future costs related to hydrogen generation and associated infrastructure, stating such costs would impact ratepayers. as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision

makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. Furthermore, with regard to future needs of the project related to hydrogen, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

This comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P79-8

The commenter suggests that LADWP focus on grid-scale battery storage and expanded wind and solar infrastructure as alternatives. The commenter is directed to **Topical Response No. 4 – Alternatives** and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR. As detailed therein, a grid-scale BESS alternative was evaluated under Alternative 2. The BESS, while technically feasible, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions.

Further, the development of alternative clean energy generation is already being implemented by LADWP through multiple solar PV programs to generate carbon-free, renewable energy for its power grid. Although the development of distributed local solar generation is technically feasible and represents a means of achieving some objectives similar to those of the proposed project, because of its intermittent and variable nature, it would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. In addition, distributed energy does not represent an effectively feasible alternative to the proposed project because its implementation has already been accounted for in the assessment of the need for the project. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

Additionally, wind generation would generally occur outside of the Los Angeles basin and would be imported via new and upgraded transmission lines. While transmission capacity enables LADWP to deliver renewable energy to its end-users, it does not address LADWP's generation needs to meet peaks in demand or interruptions in the delivery of out-of-basin renewable energy. Therefore, LADWP is also maintaining sufficient in-basin firm generation capacity to respond to extended transmission outages due to wildfires, high winds, and earthquakes. New and upgraded transmission lines will continue as planned whether or not the proposed project is implemented.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P79-9

The commenter reiterates their request to reject the Draft EIR and summarizes their aforementioned concerns. The commenter is referred to **Response to Comment Nos. P79-2** through **P79-8** above, which address these concerns. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P80

Martin, Jazmin

From: Joe Galliani <joegalliani@gmail.com>
Sent: Wednesday, January 29, 2025 4:45 PM
To: Scattergood_Modernization_Project
Cc: Debra Bushweit Galliani
Subject: [EXTERNAL] Objection to LADWP Hydrogen Project at Scattergood

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My name is Joe Galliani. My wife, Debra, and I are homeowners in Redondo Beach. We have lived 8.5 miles from the Scattergood plant since 1993.

We are very disappointed to see that LADWP plans to retrofit the Scattergood Generating Station to burn hydrogen.

The plans to retrofit Scattergood to expand hydrogen power across Los Angeles are not aligned with community demands for a real community driven solution to the climate crisis or environmental justice principles.

P80-1

After burning fossil fuels for so long it is sad to now see you do further damage and continue to put the community at risk in so many ways.

This risky project is highly water intensive, highly volatile, and would worsen air quality, which would further endanger public health.

P80-2

We urge you to reject this Draft EIR and to instead pursue alternatives such as the implementation of a grid-scale battery energy storage system.

P80-3

Sincerely,

Joe and Debra Galliani
668 Calle Miramar, Redondo Beach CA 90277
(424)275-5528

Comment No. P80

January 29, 2025
Joe and Debra Galliani
668 Calle Miramar, Redondo Beach, CA 90277
(424) 275-5528
joegalliani@gmail.com

Response to Comment No. P80-1

The commenter introduces themselves as local residents and expresses their opposition to the proposed project, stating the project does not align with climate goals or environmental justice principles. However, it should be noted that as stated in Chapter 3, Project Description, of the Draft EIR, one of the project's objectives is to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. As also described therein, the proposed project has been identified by LADWP based on the findings and recommendations contained in the Los Angeles 100% Renewable Energy Study (LA100 Study), which analyzed multiple scenarios for the City to transform its electrical power supply to carbon-free resources. The LA100 Study, the final report for which was published in 2021, was a multi-year effort undertaken jointly by NREL and LADWP with active participation by the LA100 Advisory Group consisting of representatives from neighborhood councils, environmental organizations, business and labor groups, academia, city government, and the renewable energy industry. Various scenarios reflecting a range of energy demand-related and supply-related factors were analyzed in the study, including electrification, energy efficiency and flexible load, customer rooftop solar, renewable energy, energy storage, and transmission and distribution system upgrades. Additionally, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, which discusses the impacts related to GHG emissions resulting from the project. As analyzed therein, the main source of GHG emissions from project operations would be the CCGS, which would result in higher GHG emissions when run with 100 percent natural gas than a natural gas/hydrogen fuel blend. The project-generated operational GHG emissions would fall below the federal New Source Performance Standard Subpart TTTT for Greenhouse Gas Emissions for Electric Generating Units and state Senate Bill 1368 standards for all three vendors. Therefore, the project would not result in significant operational GHG emissions. Further, the proposed project's GHG emissions impacts would be consistent with federal, statewide, regional, and local policies, including the California Air Resources Board's 2022 Scoping Plan and the City's Air Quality Element of the General Plan, which are intended to reduce and eventually eliminate GHG emissions from power generation through the use of renewable resources and less-polluting fuels. As such, the project would not conflict with or obstruct regional and state-wide goals to reduce GHG emissions and climate change impacts.

The commenter is also referred to **Topical Response No. 3 – Environmental Justice**. As detailed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the surrounding census tracts and the nearest residential communities to the project site, which include in the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA

prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P80-2

The commentor states the project is water intensive and would worsen air quality, endangering public health. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen. Regarding potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis.

Regarding air quality and public health concerns, the commenter is referred to **Response to Comment No. P80-1**.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P80-3

The commentor states their opposition to the Draft EIR and requests consideration of an alternative option such as a large-scale BESS. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, a grid-scale BESS alternative was evaluated under Alternative 2. The BESS would not be anticipated to provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be employed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. In conclusion, while Alternative 2 would be technically feasible, Scattergood would not have enough space to accommodate a BESS with a comparable generation capacity as the proposed CCGS. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P81

Martin, Jazmin

From: Jonathan Leus <jleus00@yahoo.com>
Sent: Wednesday, January 29, 2025 1:16 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Modernization Project

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Hi-

As a resident for El Segundo for the last 3 years I would like to voice my concerns about what I've read on the above mentioned subject. I am opposed to the project based on environmental concerns and as a resident who will be impacted by the expected ongoing construction plans. I wonder if all alternative planning/ sites / goals have been reviewed in equal measure. P81-1 P81-2

I'm open to hear more about the plans but in any case I would like to use this forum to express my opposition to the planned project. P81-3

Much appreciated

Regards,
Jonathan Leus

Comment No. P81

January 29, 2025
Jonathan Leus
jleus00@yahoo.com

Response to Comment No. P81-1

The commenter expresses concern regarding the project's construction impacts as a resident. The commenter is referred to Sections 4.1 through 4.7 of the Draft EIR, which discusses construction impacts (as applicable) for the environmental resource areas of aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, noise, tribal cultural resources, and wastewater. A summary of these impacts and applicable mitigation measures are also provided in Section 1.6, Summary of Environmental Impacts, of the Draft EIR. As stated therein, the proposed project would result in less than significant impacts or less than significant impacts with mitigation incorporated for construction-related impacts for each of the environmental resource areas, including biological resources and geology and soils. Therefore, with implementation of applicable mitigation measures, the construction of the project would not result in significant impacts to the nearby residential community or environment with the exception of air quality impacts during commissioning. Specifically, emissions during the commissioning phase of the proposed project would exceed the mass daily emissions significance thresholds for VOCs, CO, and NO_x until equipment tuning and installations are completed. Therefore, such impacts would be temporary. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P81-2

The commenter inquires if alternative options have been considered for the proposed project. The commenter is referred to **Topical Response No. 4 – Alternatives** and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, for a discussion of alternatives that were considered as part of the EIR. As discussed therein, the EIR considered a range of reasonable alternatives to the proposed project that would attain the objectives of the project and would avoid or substantially lessen any significant effects of the project. In summary, the following alternatives were considered but dismissed from further analysis: Alternative In-Basin Clean Energy Generation, Increase Demand Side Management Programs, New and Upgraded Transmission Lines, Retrofit Unit 1 and/or 2, and Develop Proposed Project at Alternative Location. The following alternatives were considered for further analysis: Alternative 1 – No Project, Alternative 2 – Energy Storage, Alternative 3 – Green Hydrogen Powered Fuel Cells, and Alternative 4 – Eliminate Vendor B. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P81-3

The commenter reiterates their opposition to the proposed project. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P82

Martin, Jazmin

From: Kevin Weir <kevinw.vfx@gmail.com>
Sent: Wednesday, January 29, 2025 4:44 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Oppose the Scattergood Green Hydrogen-Ready Modernization Project

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Dear LADWP and Decision-Makers,

My name is Kevin Weir, and I live in West LA. I am writing to oppose the proposed Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project. This project is a **dangerous distraction from real clean energy solutions** and poses serious environmental, public health, and financial risks to Los Angeles residents. The Draft Environmental Impact Report (EIR) fails to adequately assess these risks, and I urge you to **reject** this project. P82-1

Hydrogen is Not a Clean Energy Solution

Despite LADWP's claims, burning hydrogen is **not a clean or sustainable alternative** to fossil fuels. Hydrogen combustion releases **up to six times more nitrogen oxides (NOx) than natural gas**, worsening air quality in communities already burdened by pollution. NOx emissions contribute to **asthma, respiratory diseases, and smog**, disproportionately harming working-class communities and communities of color. P82-2

Moreover, leaked hydrogen is an **indirect greenhouse gas** that exacerbates climate change by prolonging the warming effects of methane in the atmosphere. Investing in hydrogen combustion is not a step toward climate justice—it is a step backward. P82-3

Water Waste in a Drought-Prone State

The water demands of this project are unacceptable. By 2045, Scattergood would require **122 million gallons of freshwater** or **612 million gallons of saltwater** annually—diverting critical resources away from communities struggling with water scarcity. California is already facing extreme weather swings between **megadroughts and floods**, and we cannot afford to waste water on an inefficient and unnecessary energy source. P82-4

Hydrogen Keeps Us Dependent on Fossil Fuels

This project is a **loophole for the continued use of natural gas**. Hydrogen power plants rely on **fuel blending**, meaning LADWP can keep burning fossil fuels while claiming they are transitioning to clean energy. This is a **false solution** designed to extend the life of gas infrastructure rather than truly shifting to renewable energy. We cannot allow hydrogen to be used as a Trojan horse for continued fossil fuel dependence. P82-5

Safety Risks from Hydrogen Combustion and Pipelines

Hydrogen is **14 times more flammable than natural gas**, making it a serious fire and explosion risk. It can ignite from static electricity, friction, or even minor heat exposure. Unlike natural gas, hydrogen flames **burn invisibly**, making leaks even harder to detect.

Additionally, hydrogen is prone to **leakage** from pipelines and storage facilities. **Current gas infrastructure is not designed to safely transport hydrogen**, and upgrading it would be prohibitively expensive and still prone to failure. Every hydrogen leak worsens climate change and puts communities in danger.

P82-6

Ratepayer Burden for an Unproven, Expensive Technology

The Scattergood retrofit is estimated to cost **$800 million**, but this **does not include** the price of hydrogen fuel, transportation, or infrastructure upgrades. Ratepayers will be forced to foot the bill for an unproven, inefficient technology, while LADWP could be investing in **cheaper and more reliable solutions** like battery storage and expanded solar and wind power.

Angelenos are already struggling with **rising utility bills**, and this costly experiment will only **increase financial strain** on households across the city. LADWP should not gamble with ratepayer money on hydrogen combustion when **direct electrification** is the smarter and safer alternative.

P82-7

Demand Real Clean Energy Solutions

LADWP must reject this project and focus on **truly sustainable solutions** that do not pollute our air, waste our water, or drive up our utility bills. I urge you to:

1. **Reject the Draft EIR for the Scattergood Green Hydrogen-Ready Modernization Project.**
2. **Invest in grid-scale battery storage and renewable energy expansion.**
3. **Adopt a just transition plan that does not rely on false hydrogen solutions or extend fossil fuel infrastructure.**

P82-8

Los Angeles needs a real path to **clean, affordable, and community-driven energy**—not another industry-backed scam. Please make the right decision for our future.

Sincerely,
Kevin Weir
Los Angeles

Comment No. P82

January 29, 2025
Kevin Weir
kevinw.vfx@gmail.com

Response to Comment No. P82-1

The commenter expresses their opposition to the proposed project, citing the project's environmental, public health, and financial risks to residents. The commenter states that the Draft EIR does not adequately address these risks and requests that the Draft EIR be rejected. The commenter is referred to **Response to Comment Nos. P82-2** through **P82-7** below for detailed responses to each concern.

Response to Comment No. P82-2

The commenter states that burning hydrogen is not a clean or sustainable alternative to fossil fuels due to the resulting NO_x emissions, which would cause disproportionate air quality and public health impacts to working class communities or communities of color.

With regard to NO_x emissions, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which determined that mass emissions of all criteria pollutants from construction, except for NO_x, would be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

With regard to public health, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

Regarding disproportionate impacts to certain communities, the commenter is referred to **Topical Response No. 3 – Environmental Justice.** As discussed therein, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all

races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, as detailed above and in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that project construction and operation would not expose sensitive receptors to substantial pollutant concentrations. As such, the project would not result in disproportionate impacts to environmental justice communities.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P82-3

The commenter states that the leaking of hydrogen is an indirect greenhouse gas that would result in climate change impacts. The commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As detailed therein, with compliance with regulatory requirements of the National Fire Protection Association (NFPA) 2 and the American Society of Mechanical Engineers (ASME) B31.12 and the standards outlined in Compressed Gas Association (CGA) G-5.4 (such as those related to proper design, testing, piping, pressure, safety measures), the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

With respect to the commenters' concern about hydrogen leakage and potential GHG effects, the project's hydrogen pipelines would be designed, constructed, operated, and maintained to account for the hydrogen embrittlement of carbon and low alloy steels and other materials. The project's hydrogen system would undergo extensive testing and inspection prior to operation and after completion of examinations and repairs to ensure hydrogen leaks would not occur. Tests would include, but not be limited to, hydrostatic leak tests, pneumatic leak tests, and sensitive leak tests. In addition, hydrogen gas and fire detectors and sensors would be installed to detect gas leakages, sound alarms, and/or activate shutdown if needed. Therefore, through compliance with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards outlined in CGA G-5.4. the project's on-site hydrogen operational activities would not create significant hydrogen leakage that has the potential to indirectly increase GHGs in the atmosphere.

With regard to climate change concerns, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts. The project would not result in significant impacts related to GHG emissions.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P82-4

The commenter states the project's water use would be wasteful and inefficient and would require 122 million gallons of freshwater or 612 million gallons of saltwater annually by 2045. However, the commenter does not provide a source or evidence for these claims. In addition, the Draft EIR

does not provide these estimates. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen. With regard to potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P82-5

The commenter claims the project's proposed use of hydrogen fuel blends will perpetuate reliance on fossil fuels. While the commenter does not provide evidence for this claim and does not specifically address the adequacy of the Draft EIR, it should be noted that, as described in Chapter 3, Project Description, of the Draft EIR, one of the objectives of the proposed project is, in part, to provide resilience to maintain the reliability of the LADWP electrical power system to help meet peaks in demand that exceed available renewable generation resources and energy storage capacity. Another objective of the project is to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. As such, the project does not aim to perpetuate dependence on fossil fuels. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P82-6

This comment states the risks related to hydrogen use, including fire and explosive risks, as well as leakage from pipelines. With regard to fire and explosive risks, the commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As discussed therein, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the NFPA 2. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the ASME B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA 2, Hydrogen Technologies Code, and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of

hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation.

With regard to concerns about potential leakage from hydrogen transport and storage, the commenter is referred to **Topical Response No. 2 – Hydrogen.** As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure, including the transport to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system, including safe transport of hydrogen, will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P82-7

The commenter expresses concern with the cost of using hydrogen, including costs for fuel, transportation, and infrastructure. The commenter states LADWP could be investing in more affordable energy alternatives such as battery storage and solar and wind power. As stated in **Topical Response No. 2 – Hydrogen**, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Furthermore, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

Regarding energy alternatives, the commenter is directed to **Topical Response No. 4 – Alternatives** for a summary of alternatives discussed in the Draft EIR. As detailed therein, a grid-scale BESS alternative was evaluated under Alternative 2. While technically feasible, the BESS would not be anticipated to provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions.

Furthermore, the development of alternative clean energy generation is already being implemented by LADWP through multiple solar PV programs to generate carbon-free, renewable energy for its power grid. Although the development of distributed local solar generation is technically feasible and represents a means of achieving some objectives similar to those of the

proposed project, because of its intermittent and variable nature, it would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. In addition, distributed energy does not represent an effectively feasible alternative to the proposed project because its implementation has already been accounted for in the assessment of the need for the project. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

Additionally, wind generation would generally occur outside of the Los Angeles basin and would be imported via new and upgraded transmission lines. While transmission capacity enables LADWP to deliver renewable energy to its end-users, it does not address LADWP's generation needs to meet peaks in demand or interruptions in the delivery of out-of-basin renewable energy. Therefore, LADWP is also maintaining sufficient in-basin firm generation capacity to respond to extended transmission outages due to wildfires, high winds, and earthquakes. New and upgraded transmission lines will continue as planned whether or not the proposed project is implemented.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P82-8

The commenter summarizes their concerns and reiterates their request for the Draft EIR to be rejected. The commenter is referred to **Response to Comment Nos. P82-2** through **P82-7** above, which addressed these concerns. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P83

Martin, Jazmin

From: Laura Rosenberger Haider <lauragreen.rosenberger@gmail.com>
Sent: Wednesday, January 29, 2025 9:27 AM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Modernization project: reject this Draft EIR and prioritize community and climate health over another risky combustion technology.

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

NOx is a leading precursor of smog. Hydrogen generates 3-5x as much NOx as natural gas. Even without hydrogen NOx is emitted. P83-1

Comment No. P83

January 29, 2025
Laura Rosenberger Haider
lauragreen.rosenberger@gmail.com

Response to Comment No. P83-1

The commenter expresses concern about NO_x, and states that hydrogen combustion results in higher NO_x emissions compared to natural gas. As noted in Section 3.3.2 of the Draft EIR, all electric power generating combustion units at Scattergood use selective catalytic reduction systems (SCR), a post-combustion control technology for reducing NO_x air pollutant emissions. Additionally, as described in Section 3.5.1.1 of the Draft EIR, the proposed CCGS would use a combination of processes to control air pollutant emissions, including dry burner technologies for the combustors in the combustion turbine and a SCR system to reduce the NO_x emissions and comply with SCAQMD requirements.

As detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impact would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

This comment does not address the adequacy of the Draft EIR, and no further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P84

Martin, Jazmin

From: Klein, David M <david.klein@csun.edu>
Sent: Friday, January 31, 2025 7:23 AM
To: Scattergood_Modernization_Project
Cc: Klein, David M
Subject: [EXTERNAL] Please Reject Scattergood Project

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Dear DWP Decision Makers,

I'm writing to urge you to find alternatives to the Scattergood Modernization Project. P84-1

Hydrogen is far too water intensive to be a viable climate solution, especially in Los Angeles where we are already experiencing megadroughts, fires, and other drastic weather extremes. Not only is water needed to produce the hydrogen itself, but the process also requires vast quantities for cooling, treatment and disposal. P84-2

Hydrogen (H2) is the smallest molecule and invariably leaks from pipes and containers. When hydrogen enters the atmosphere, it is more potent as an indirect greenhouse gas than CO2, making the climate impacts worse. In addition, hydrogen is 14 times as flammable as natural gas. Static electricity, friction, heat and electrical fields can all ignite it. Moreover, hydrogen can burn backward into pipes, creating high-pressure explosions that can throw shrapnel and even destroy buildings. P84-3

When Hydrogen is burned for electricity generation, it can produce six times more nitrous oxides than natural gas. Nitrous oxides are harmful pollutants that can cause respiratory illness and contribute to the formation of smog. P84-4

Hydrogen is not a solution to our clean energy needs, nor is it a solution to our constant utility rate hikes. Ratepayers are already being told that they will have to foot the bill for an $800 million experimental hydrogen project. A clean energy future for Los Angeles is one that protects working class families, not one that enriches fossil fuel interests. P84-5

A far better alternative for electricity generation during peak electricity usage could come from bidirectional charging from electric vehicles.

Major auto makers, Ford, General Motors, Hyundai and Volkswagen, are developing Electric Vehicles (EV) with bidirectional charging capabilities. Bidirectional charging enables EV owners, not only to charge their own cars, but also to provide power to the electric grid or to their homes during periods when the grid is strained by heatwaves or other events. Utility companies, such as LADWP could provide financial incentives to participate in that process. In this way, EVs can play a dual role of providing transportation and serving as electrical storage batteries. P84-6

By the end of the decade, it is estimated that 30 million EVs will be on U.S. roads, and that number of cars can store the same amount of power as dozens of nuclear power plants operating for full a day. Along with privately owned EVs, city owned electric buses and vehicles could, in this way, provide a critical backup and support to the grid in Los Angeles, when extra power is needed. This will help clear the way to shut down gas and coal generators currently in operation and eliminate the need for dangerous hydrogen-based electricity generation for supplementary power. It's a win-win

for Angelinos, with cleaner air, financial savings for EV owners, and reliable supplementary electric power to avoid blackouts and keep air conditioners running during heatwaves!

P84-6
cont'd

Sincerely,
David Klein
18101 Superior St
Northridge, CA 91325
david.klein@csun.edu

Comment No. P84

January 31, 2025
David Klein
18101 Superior Street, Northridge, CA 91325
david.klein@csun.edu

Response to Comment No. P84-1

The commenter requests LADWP to consider alternatives to the project. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA Guidelines. In summary, the following alternatives were considered but dismissed from further analysis: Alternative In-Basin Clean Energy Generation, Increase Demand Side Management Programs, New and Upgraded Transmission Lines, Retrofit Unit 1 and/or 2, and Develop Proposed Project at Alternative Location. The following alternatives were considered for further analysis: Alternative 1 – No Project, Alternative 2 – Energy Storage, Alternative 3 – Green Hydrogen Powered Fuel Cells, and Alternative 4 – Eliminate Vendor B. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but are instead complementary to the proposed project and will continue as planned whether or not the project is implemented. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P84-2

The commenter states hydrogen is highly water intensive. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen. With regard to potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P84-3

The commenter lists their concerns with hydrogen use, including leakage from pipes, flammability, and explosivity. The commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As discussed therein, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases)

and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen on site for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by NFPA 2, Hydrogen Technologies Code, and ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. As such, the project would have extensive fire protection and prevention measures in place to ensure the safety of the environment and public during project construction and operation. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P84-4

The commenter expresses concern with the resulting NO_x emissions from burning hydrogen, stating such emissions would cause respiratory illness and air pollution. Regarding health impacts due to NO_x emissions, as detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that impacts would be less than significant. Regarding air pollution impacts, as also assessed in Section 4.2, Air Quality, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. Because commissioning inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

Response to Comment No. P84-5

The commenter states hydrogen would be too costly for ratepayers. As stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the

provision of an economic or financial cost-benefit analysis of the proposed use. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P84-6

The commenter suggests bidirectional charging from electric vehicles[52] as an alternative to the proposed project for electricity generation. The commenter provides examples of companies who have implemented this technology and states the benefits of bidirectional charging such as reduced emissions, cost benefits, and reliable power. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project, including renewable energy alternatives, have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA Guidelines. CEQA Guidelines Section 15126.6(a) states that the EIR should consider a range of reasonable alternatives to the proposed project that would attain the objectives of the project and would avoid or substantially lessen any significant effects of the project. The CEQA Guidelines state there is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason and that an EIR need not consider every conceivable alternative, such as bidirectional charging from electric vehicles, whose feasibility or effects cannot be reasonably ascertained. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but rather are complementary to the proposed project and will continue as planned whether or not the project is implemented. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

[52] Electric Vehicle charging technology typically sends energy only in one direction, from a power source to a car's battery. Bidirectional charging allows the vehicle to flow energy both ways for use by other devices.

Comment No. P85

February 11, 2025

Los Angeles Department of Water & Power
Corporate Environmental Affairs
Environmental Planning & Assessment
111 North Hope Street, Room 1044
Los Angeles, CA, 90012

SUBJECT: Support for the Scattergood Modernization Project – Alternative 4

Dear Ms. Martin,

The Valley Industry & Commerce Association (VICA) writes to express our strong support for the Los Angeles Department of water & Power's (LADWP) Scattergood Modernization Project, specifically Alternative 4, as outlined in the Draft Environmental Impact Report. This project is essential for ensuring the long-term reliability of Los Angeles' power grid, supporting local economic growth, and advancing the city's climate and environmental goals.

The Scattergood Generating Station Units 1 and 2 are in urgent need of modernization. Upgrading these aging units will maintain critical local generation capacity, ensuring a stable and dependable power supply for millions of residents and businesses across Los Angeles. Without this modernization, the city risks a significant loss of generation capacity, increasing the likelihood of power outages that could disrupt not only businesses but also essential facilities like LAX, the Hyperion Water Reclamation Plant, UCLA, and the greater western districts of Los Angeles.

P85-1

As Los Angeles faces growing threats from wildfires, extreme heat waves, and other climate-related challenges, maintaining a reliable, locally dispatchable power grid is critical to safeguarding our economy and public safety. Businesses in the San Fernando Valley and across the region depend on stable energy access to remain competitive and to continue contributing to the city's economic vitality.

In addition to enhancing grid reliability, the project will deliver significant environmental and climate benefits. By upgrading the generating units to operate with a minimum of 30% hydrogen by volume, Alternative 4 will significantly reduce harmful emissions, contributing to cleaner air and improved public health in the surrounding communities. This modernization supports both citywide and statewide efforts to transition to cleaner energy sources and meet California's ambitious climate goals.

For these reasons, VICA strongly recommends the adoption of Altnerative 4. Modernizing Generating Station Units 1 and 2 with state-of-the-art, fuel-efficient, and cleaner-burning technology will not only meet Los Angeles' electric reliability and resiliency needs but will also support our economy and environmental objectives.

Sincerely,

Stuart Waldman
VICA President

Valley Industry & Commerce Association • 16600 Sherman Way, Suite 170 Van Nuys, CA 91406 • phone: 818.817.0545 • fax: 818.907.7934 • www.vica.com

Comment No. P85

February 11, 2025
Stuart Waldman, Vice President
Valley Industry & Commerce Association
16600 Sherman Way, Suite 170 Van Nuys, CA 91406
(818) 817-0545

Response to Comment No. P85-1

The commenter, on behalf of the Valley Industry and Commerce Association, expresses support for the project, specifically for Alternative 4 (Eliminate Vendor B). The commenter states several benefits would result from Alternative 4, including energy reliability, ensuring the long-term reliability and stability of the City's power grid for residents, businesses, and critical infrastructure within the City. The commenter also states the project would result in environmental benefits for nearby communities by reducing GHG emissions, and the project would support local and statewide efforts to transition to clean energy sources. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Via Electronic Mail
Los Angeles Department of Water and Power
Corporate Environmental Affairs Environmental Planning and Assessment

Attn: Jazmin Martin
Email: Scattergood_CEQA@ladwp.com

RE: Scattergood Draft Environmental Impact Report

To Ms. Martin, Ms. Rubin, Ms. Hauptman, and Ms. Parker:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project.

Third Act Sacramento is a local chapter of a national group of 70,000 elders committed to protecting democracy and the climate. Our local chapter coordinates with members in the San Francisco By Area and Southern California to accelerate the adoption of renewable, clean fuels. We strongly believe that hydrogen-powered electricity plants are a poor choice for a clean, safe environment.

Specifically, we oppose LADWP's plans to re-engineer Scattergood as a green hydrogen-fueled peaker plant. Instead, we urge you to implement a utility-scale Virtual Power Plant (VPP) and Distributed Energy Resources Management System (DERMS) as a cleaner, more cost effective, and locally resilient alternative. This is a much better solution than continuing with the aged and highly inefficient peaker plant model that provides zero energy resilience. P86-1

A Virtual Power Plant will significantly reduce the need for methane or hydrogen powered peaker plants by allowing LADWP to draw upon existing solar arrays and battery electric storage systems (BESS) in the City of Los Angeles. By combining these clean energy sources with an effective demand response program, LADWP can dynamically add electricity from Distributed Energy Resources (DERs) to the grid, while reducing power consumption during peak times across both residential and commercial building heating and cooling systems, as well as electric vehicle chargers.

LADWP already has several models in place that can be scaled up, and modified as needed, to create a "Virtual Peaker Plant," as follows:

- LADWP's Interconnection Program for NEM (PV), BESS, and Cogeneration Projects is designed to streamline the process for bringing solar arrays and battery systems online; the department describes it as a key strategy to harness local renewable energy resources.
- The Utility Built Solar Program places solar arrays and battery storage at city facilities, which LADWP says will increase the reliability of LA's power grid.
- The Virtual Net Energy Metering (VNEM) Program allows property owners and developers to install solar arrays on multifamily apartment complexes and sell the solar energy to LADWP.

We urge LADWP to make the best decision for the climate, air quality, ratepayers, resilience, and safety by NOT converting the Scattergood Generating Station into burning hydrogen and methane. We instead urge LADWP to invest in today's much more cost-effective and resilient peak energy solutions featuring VPPs and DERMS, and thus retire the Scattergood Generating Station.

P86-1
cont'd

Thank you for the opportunity to comment on the Scattergood Draft EIR.

Sincerely,



Diana Cassady
Facilitator, Third Act Sacramento
https://thirdact.org/sacramento
(916)245-1231

Comment No. P86

February 12, 2025
Diana Cassady, Facilitator
Third Act Sacramento
(916)245-1231

Response to Comment No. P86-1

The commenter provides introductory remarks regarding the Third Act Sacramento group. The commenter expresses opposition to the project and recommends the implementation of a utility-scale VPP and DERMS. The commenter states the VPP and DERMS would be a cleaner, more cost effective, and locally resilient alternative to the proposed CCGS, claiming the CCGS would not provide energy resilience. The commenter describes the potential benefits of the VPP and DERMS, including the lowering of peak demand, the provision of greater grid flexibility, and improved air quality and GHG emissions impacts. The commenter requests that LADWP modify and expand existing programs such as LADWP's Interconnection Program, Utility Built Solar Program, and Virtual Net Energy Metering Program, to create a VPP.

The commenter is referred to Section 1.2, Project Background, of the Draft EIR, which states the following:

> LADWP has identified the proposed project as integral to the goal of implementing a carbon-free energy system providing reliable and sustainable electrical power for the City of Los Angeles (City). Based on findings in the Los Angeles 100% Renewable Energy Study prepared by National Renewable Energy Laboratory and LADWP as well as the 2022 Power Strategic Long-Term Resource Plan prepared by LADWP, the continued availability of local energy generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area is necessary to maintain the resilience and reliability of the City's electrical power grid. LADWP's Scattergood Generating Station (Scattergood) has been identified as the most immediate and instrumental location in relation to the requirement for firm (i.e., dependable) in-basin generation capacity due to the projected demand for energy in areas of the City that Scattergood serves.

Accordingly, the proposed project is critical to ensuring the resilience of the local energy grid. The commenter is also referred to **Topical Response No. 4 – Alternatives**. As detailed therein and in Section 5.5.1 of the Draft EIR, alternative in-basin clean energy generation is a part of LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and already being implemented by LADWP, which include multiple solar photovoltaic programs to generate carbon-free, renewable energy for its power grid, such as those described by the commenter. Though local distributed renewable generation can be rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Additionally, distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented. The commenter is further referred to **Response to Comment No. P93-13**. As discussed therein, in summary, LADWP supports expanding VPP and distributed energy resources capabilities as complementary, emission-reducing resources, but current evidence does not support treating them as a technically equivalent or fully deliverable substitute for firm in-basin generation needed to maintain reliability under California Independent System Operator (CAISO), North American Electric Reliability Corporation (NERC), and Western Electricity Coordinating Council (WECC) criteria. LADWP finds that VPPs, long duration energy storage

technologies, and demand side management programs are strategic complements that enhance flexibility, lower emissions, and support customer participation. At present, these resources do not provide the firm, location-specific capacity required to ensure N-1 reliability within the Westside.

No further response to this comment is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P87

Martin, Jazmin

From: Andrea Leon-Grossmann <aleon@votesolar.org>
Sent: Thursday, February 13, 2025 7:16 PM
To: Scattergood_Modernization_Project
Cc: Frankie@societyofnativenations.org; Katz, Richard; McGraw, George; Lehrer, Mia; Katz, Nurit; Pinder, Wilma; mayor.helpdesk@lacity.org; Councilmember.Nazarian@lacity.org; councilmember.yaroslavsky@lacity.org; Councilmember.Jurado@lacity.org; contactCD4 @lacity.org; councilmember.padilla@lacity.org; contact@lanaic.org; laxboac@lawa.org
Subject: [EXTERNAL] Additional comments on Scattergood

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

To whom it may concern,

I wanted to add the following information to the comment from Vote Solar and Society of Nations.

SoCalGas LA Link's community outreach has been awful and it is clear they simply wanted to "check the box" and be in compliance with regulators, but meaningful outreach was not conducted. Here is the **LA Link Technical Documents** link with a bunch of links, some of which are broken, and some which are not. The ones that are from IPCC do not even mention hydrogen at all.

Ironically, SoCalGas mentions how "transparent they are at the top before announcing all the links: *SoCalGas is making these documents available consistent with the **robust and transparent** stakeholder engagement process envisioned in SoCalGas' recent application to the California Public Utilities Commission (CPUC) requesting approval to track incremental costs related to the development of Angeles Link.* P87-1

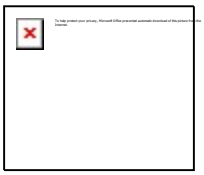
At the bottom of the list is the Spec Reports, which link is broken. After a quick online search, this is the actual link to the **Specs reports** that are part of SoCalGas application for over $1 billion in funding and expedited processing to build this dangerous hydrogen infrastructure in our backyards. And **most important information in all those Spec reports is redacted**. We deserve to know where they want to store this explosive fuel and where they want to build pipelines. We also deserve to know with whose water will they make that hydrogen especially after the urban fires we just had.

As LADWP ratepayers, we have the right to ask SoCalGas to make all the redacted information in the Spec reports public, and LADWP should also be asking for such data. P87-2

Now that the Trump administration froze funds related to IRA energy projects, we also need to know where the funding would come from for this dangerous project.

--

Andrea León-Grossmann



Deputy Program Director, West
aleon@votesolar.org
pronouns: she/her/ella

Vote Solar & Vote Solar Action Fund
Los Angeles, CA
votesolar.org

Comment No. P87

February 13, 2025
Andrea León-Grossmann, Deputy Program Director, West
Vote Solar
aleon@votesolar.org

Response to Comment No. P87-1

The commenter requests their comments be added to those in **Comment No. P76**. The commenter states their concerns with the SoCalGas public outreach process and their lack of public information. SoCalGas, a natural gas distribution utility, is a separate entity from LADWP, which is a municipal water and power utility and the lead agency for the proposed project. The project does not involve SoCalGas, and as such, the comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. P87-2

The commenter requests more information regarding the infrastructure, water supply, and funding needed for hydrogen. The commenter is referred to **Topical Response No. 2 – Hydrogen.** As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not produce hydrogen or result in an onsite water demand to produce hydrogen. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

With regard to the commenter's concerns regarding funding, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P88

Martin, Jazmin

From: Craig <Craig@actionwrks.com>
Sent: Friday, March 14, 2025 9:41 AM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (Public comment)

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Mixing Hydrogen with Methane has not been proven to be safe and should not be used in such a heavily populated area and next to LAX. P88-1
Please do not rush into this project without proper testing and safety regulations.
Please consider alternative energy sources. P88-2
Thanks,
Craig Barry
12115 Culver DR.
Culver City, CA 90230
craig@actionwrks.com

Comment No. P88

March 14, 2025
Craig Barry
12115 Culver Drive, Culver City, CA 90230
craig@actionwrks.com

Response to Comment No. P88-1

The commenter requests that the project consider proper testing and safety regulations related to the mixing of hydrogen with methane. The commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As detailed therein, with compliance with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, testing, piping, pressure, safety measures), the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P88-2

The commenter requests the consideration of alternative energy sources. The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA Guidelines. In summary, the following alternatives were considered but dismissed from further analysis: Alternative In-Basin Clean Energy Generation, Increase Demand Side Management Programs, New and Upgraded Transmission Lines, Retrofit Unit 1 and/or 2, and Develop Proposed Project at Alternative Location. The following alternatives were considered for further analysis: Alternative 1 – No Project, Alternative 2 – Energy Storage, Alternative 3 – Green Hydrogen Powered Fuel Cells, and Alternative 4 – Eliminate Vendor B. The majority of renewable energy alternatives considered in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, would not be anticipated to provide a comparable generation capacity as the proposed project CCGS, but are instead complementary to the proposed project and will continue as planned whether or not the project is implemented. No further response is required. This comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P89

Martin, Jazmin

From: Jerry Tobe <tagchai@gmail.com>
Sent: Monday, March 24, 2025 4:41 AM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Generating Station Units 1 and 2 Green Hydrogen Ready Modernization Project

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Dear LADWP,
The Project fails to show that there is a net power gain burning a natural gas-hydrogen mix when the amount of energy required to produce, distribute and store the hydrogen is taken into account, and compared to the reduction in energy required to produce, distribute and store 30% more natural gas that the hydrogen replaces. P89-1

More importantly, the amount of nitrous oxide produced and its greenhouse gas impact must be given more serious consideration. Nitrogen oxides (NOx) may be emitted in cases where hydrogen is combusted—such as in a turbine used to generate electricity or in industrial heating applications. NOx formation occurs when air (which contains nitrogen and oxygen) is exposed to very high temperatures (›1,500°C). Any type of high-temperature combustion (e.g., of diesel, gasoline, natural gas, hydrogen) can produce NOx, which include nitric oxide (NO) and nitrogen dioxide (NO2), both hazardous air pollutants. Because hydrogen burns at higher temperatures than natural gas, combustion of pure hydrogen may result in comparably higher NOx emissions (6-8 times higher). However, this may be offset by the fact that hydrogen has a larger stable combustion temperature range, meaning a higher ratio of air to fuel can be used. This additional air effectively dilutes the hydrogen, which cools off the flame and results in lower-temperature combustion, thereby reducing the amount of NOx emissions produced. Current research has shown that hydrogen combustion via turbines can achieve comparable performance and NOx emissions to those of today's turbines running on natural gas. More information on NOx emissions can be found in the presentation for HFTO's H2IQ Hour "Addressing NOx Emissions from Gas Turbines Fueled with Hydrogen." (U.S. Department of Energy) P89-2

Please note hydrogen combustion via turbines can only achieve nitrous oxide emissions comparable to natural gas turbines.

3.1.5 Impact of Hydrogen and Hydrogen/Natural Gas Blends on NOX in Gas Turbines

In summary, for gaseous fuels with low fuel-bound nitrogen, thermal NOX is the primary category of NOX created in gas turbines. For hydrogen specifically, this problem is exacerbated by higher flame speed, which is not only indicative of a higher reaction rate, but it also induces combustion instabilities due to thermoacoustics [16]. As a result, for flames with uncontrolled NOX emissions,
hydrogen is expected to produce more than eight times more NOX than natural gas under similar conditions [17]. However, for lean pre-mixed flames, these emissions can be mitigated to the point that applicable NOX control

technologies can bring the emissions down to levels compliant with current U.S. Environmental Protection Agency (EPA) regulations, if not comparable to those produced by ordinary natural gas turbines. It is thus predicted that hydrogen gas turbines of the future will be able to compete with current natural gas engines. (NATIONAL ENERGY TECHNOLOGY LABORATORY White Paper)

Please note - Lean pre-mixed flames, these emissions can be mitigated to the point that applicable NOX control technologies can bring the emissions down to levels compliant with current U.S. Environmental Protection Agency (EPA) regulations, if not comparable to those produced by ordinary natural gas turbines.

P89-2 cont'd

The Project will produce as much, if not more, nitrous oxides than just burning natural gas. Nitrous oxide is approximately 270 times more potent than carbon dioxide in terms of warming the planet, and currently responsible for approximately 10% of net global warming since the industrial revolution. N_2O is the third most significant greenhouse gas and the top ozone-depleting substance still being released into the atmosphere. (UN Environment Programme 12 Nov 2024).

We MUST reduce the amount of nitrous oxide Scattergood Generating Station Units 1 and 2 releases not increase the nitrous oxide released. I strongly urge you to end the Scattergood Generating Station Units 1 and 2 Green Hydrogen Ready Modernization Project now.

Thank you for reading my email.

--
Best Regards,
Jerry Tobe

Comment No. P89

March 24, 2025
Jerry Tobe
tagchai@gmail.com

Response to Comment No. P89-1

The commenter states that the project does not account for the energy required to produce, distribute, and store hydrogen. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure, including the transport, to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, the green hydrogen system, including safe transport of hydrogen, will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P89-2

The commenter provides information and sources regarding NO_x emissions resulting from hydrogen combustion, including the formation and combustion process within turbines. The commenter expresses concern related to NO_x and GHG emissions and the resulting impacts to global warming. Regarding NO_x emissions, as noted in Section 3.3.2 of the Draft EIR, all combustion units at Scattergood use SCR, a post-combustion control technology for reducing NO_x air pollutant emissions. Additionally, as described in Section 3.5.1.1 of the Draft EIR, the proposed CCGS would use a combination of processes to control air pollutant emissions, including dry burner technologies for the combustors in the combustion turbines and a SCR system to reduce the NO_x emissions and comply with SCAQMD requirements.

Further, as detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impact related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

With regard to GHG emissions, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P90

Martin, Jazmin

From: Eric Crane <eric.m.crane@gmail.com>
Sent: Thursday, March 27, 2025 2:21 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Public Comment To Offer Suggestions For Increased Revenue and Additional (Possibly) Megawatts of Carbon-Free Power
Attachments: US Navy LACo Geothermal Study, 1984.pdf

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Hi,

My comments are related to the CEQA for the Scattergood Modernization Project (SMP) in that a new technology that has been commercialized quite literally this year could move the date for when the SMP's new turbine can burn 100% hydrogen from 2035 to its initial commissioning in 2029, without a change to the fuel supply infrastructure and adding a potentially significant new revenue stream (tens to hundreds of millions of dollars per year, depending on the volume of natural gas the plant will use) for the plant. Such a change would prevent 5 years worth of CO2 emissions, and would contribute to creating an abundance of a material that will help with the transition to electric vehicles and other battery-based applications. Let me add that I don't work for or own stock in the company that makes it (or the others I mention), I just have an affinity for cleantech and renewable energy.

I have a second idea I would like to present as well, it is something that may or may not be relevant to the Scattergood site, but it could be utilized to add carbon emissions-free, 24 hour baseload generation capacity on the megawatt scale throughout the basin, from Venice to the Harbor, to Jefferson Park and Mid City, to Westchester and even by the Haynes Generating Station.

To begin with, the newly commercialized technology, by a company called Levidian, is one that produces gaseous hydrogen and graphene, a form of solid carbon directly from natural gas (methane). The science behind it is this: it uses a process known as pyrolysis, where the methane is heated in absence of oxygen to split apart the molecule--CH4--into its constituent hydrogen and carbon atoms, without any combustion or emissions of NOx or CO2. The energy required to facilitate this process is 1/8 of what goes into splitting water into hydrogen and oxygen via electrolysis that is typically used to make green hydrogen. And, the resulting graphene is an ultra-high quality, consistent product that, at present, fetches between $60,000 and $200,000 PER TON. P90-1

Graphene has many uses, but most notably, it can be used to make lithium ion batteries charge faster, store more energy, and improve their efficiency. In addition, using methane as a source for hydrogen eliminates the need for water as an input, both as the hydrogen source as well as maintaining a proton exchange membrane. In fact, this plant could presumably generate PURE WATER as its only "exhaust," something that could be condensed in either an expander turbine or used to power an organic Rankine cycle (ORC) engine (to generate additional electricity), treated, and injected into the drinking water supply. (Of course, pure oxygen would have to be supplied to the turbine in such a way to eliminate NOx emissions, but oxygen can be produced on site with an expander turbine, and the dense, cold oxygen makes the combustion reaction more efficient.)

A way to eliminate CO2 emissions five years ahead of schedule, speed up the implementation of the hydrogen economy, speed the mass adoption of electric vehicles, CREATE a new supply of DRINKING WATER, and a new revenue stream is one hell of a headline for this project. It would quite literally be a "Generating Station," for electricity, graphene, water,

and heat (if there's a local use for said heat). But no pollution. Plus, if the natural gas being supplied to the plant is captured from a current source of methane emissions or other waste gas, the process can actually be considered carbon neutral (and possibly allow the plant to receive carbon credits, which it could then sell).

Now, the second idea is somewhat related to the first in that it would use the same technology that turns the turbine's exhaust into liquid water--an evaporator coupled to an organic Rankine cycle engine--but it would be used to generate electricity from the geothermal heat contained in the various oil fields around the city. In 1984, the US Navy commissioned a study of LA County's geothermal resources (attached), to see if it was feasible to use it to heat the now-closed base at the Port of Long Beach. It found that while the temperatures at depths attainable by oil drilling equipment were nearly or high enough to boil water (212˚F, of course), the technology that existed at the time to capture that heat and use it on base was not efficient enough to make it economical.

Luckily, in the intervening decades, the technology has been developed to the point where temperatures as low as 150˚F can be used to generate electricity. There is more than one company that makes the turbines, some of which are also vertically integrated to do site evaluation, custom designs, installation, and operation as well. Here are a few examples: Ormat Technologies, Kaishan USA, ElectraTherm, and HydroScot Energies (UK-based). Now, the fun thing (for me, anyway) about developing this project, in LA, is the potential exists to achieve some real synergies that can reduce costs and solve multiple high profile problems at once. Those problems include uncapped/abandoned oil wells, air pollution/methane leaks from these wells and neighborhood air quality, the need for additional power supply in places where the only way to get it there requires upgraded transmission lines, and community resilience during disasters--earthquakes, wildfires, Santa Ana winds, etc. P90-1 cont'd

In an ideal world, the abandoned wells could be used to analyze the heat-producing ability of the various oil fields, then be repurposed as heat production and reinjection wells, thereby eliminating any methane or other emissions they are presently creating, slowing climate change, improving neighborhood air quality, adding 24 hour, emissions-free, reliable baseload power generation with no fuel cost in places that otherwise require transmission upgrades to supply it, and if the grid surrounding the site were modified, it could be the basis of a microgrid, able to disconnect from the larger one and provide power to homes and community centers during disasters. This is always top of mind in LA, but after the fires in January, its relevance even in interior parts of the city is renewed. It's especially tantalizing (again, for me) as a possibility given that the wells are already present, there are viable temperatures in the formations, and even if there isn't enough heat for multiple megawatt-scale generators, there is a strong possibility that even the 75kW and 150kW models could be economical to install and operate. The average home solar panel installation is 5-10kW, having a few of the 150kW generators would at least help during heat storms in the summer if nothing else.

So, I imagine most comments to a CEQA review don't include ways to make MORE money from a power plant, or promote technologies and companies they don't work for or own any stock in, but here it is. I URGE you to PLEASE give these ideas serious, in-depth consideration. Even just a press release stating the possibilities of a power plant being supplied with natural gas that doesn't pollute as part of its operation, generates power, water, graphene, and heat, and that you are pursuing a new way to get CLEAN energy out of LA's old oil fields that is reliable, a source of baseload power, and eliminates methane pollution--it will turn heads and boost LA's reputation as a place of cleantech innovation, as it's already known, but this will give hope in a time of climate action persecution, and a model to copy that maintains the same jobs required in the oil industry--a model for the just transition.

Because this is VITALLY IMPORTANT, I'll put it in all caps: I SEE THIS AS THE "GRAND BARGAIN" FOR CLIMATE. One reason energy companies have been fighting climate action is they fear a loss of not just market share from competing tech, but an eventual elimination of their business models. Green hydrogen is still being worked on, and even if it was solved tomorrow, building hydrogen distribution infrastructure from scratch will be expensive, to say the least, and the water has to come from somewhere, with no place it would be sourced going uncontested. Now, THE CLIMATE CRISIS IS WORSE THAN EVEN WELL-INFORMED PEOPLE REALIZE, AND SPEEDING UP A HYDROGEN ECONOMY IS ESSENTIAL AND POSSIBLE. My solution is to use METHANE AS A HYDROGEN CARRIER via the EXISTING PRODUCTION, PROCESSING, AND DISTRIBUTION SYSTEMS and extracting the hydrogen pre-end use. The idea has been floated to use ammonia as a hydrogen carrier (NH3), but I feel methane is better because it provides 4 hydrogen atoms instead of 3, and ammonia is P90-2

toxic. Using methane, there are no abandoned assets in the natural gas infrastructure that's been built over the last 140 years, and only the turbines, fuel nozzles, and other end-of-pipe hardware needs to be changed by customers, not energy companies. P90-2 cont'd

This does not leave energy companies off the hook, however. In exchange for this system, they would need to agree to seal it of leaks completely, at every stage. As long as this happened, the hydrogen produced could legitimately be referred to as turquoise, and possibly even green. In consideration of all entities involved, from the energy industry, to their customers, society, and the planet, carbon dioxide emissions from MOST economic activity besides transportation can be ELIMINATED, the energy companies can continue to expand their operations, there is a source of graphene that, at this scale, would be economical to make a host of products and processes more efficient, and, as long as the drive toward maximum electrification continued, NOx emissions would decline. (As long as turbines burning 100% hydrogen at the power plants were designed to prevent NOx emissions, the more that is electrified, including vehicles, stoves, water heaters, home heating via heat pumps, etc, the greater the reduction in combustion-related NOx emissions.)

If you need any clarification on how the oil field geothermal idea could work, please get in touch. The photos on some of the websites show large arrays of cooling fans, but these are in remote areas and at a scale a neighborhood installation would not seek to mimic. The size of the generation and cooling equipment would be sized to what would fit in a given lot's area, and a means to minimize water use--instead of using water to cool the effluent refrigerant from the ORC, a cooling system that generates additional electricity can be used instead, with measures to contain fan noise designed into the system as well. P90-3

Peace, Love, and Possibilities,

Eric Crane

PS: If I had infinite time, I'd write a white paper or another promotional piece of content on the idea of using the Levidian pyrolysis technology as a climate adaptation and resilience solution for any and all water-stressed regions in the world. Taking the change in the western United States' precipitation patterns and the attendant reduction of Colorado River water, any place that already has a supply of natural gas could install a plant such as the one I am suggesting as the basis for resilience of local businesses and municipalities. A 346MW plant could provide electricity to a community, supplementary water for local farms and residents, a source of income via graphene, and a source of heat for a variety of commercial and industrial uses, without creating pollution from its operation, therein not making the problem causing the lack of water worse.

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DOE/SF/11720--T1

GEOTHERMAL ENERGY AT LONG BEACH NAVAL SHIPYARD AND NAVAL STATION AND AT SEAL BEACH NAVAL WEAPONS STATION, CALIFORNIA

by

Chris T. Higgins, Geologist

Rodger H. Chapman, Geophysicist

DOE/SF/11720--T1

DE85 002493

P90-4

California Department of Conservation

Division of Mines and Geology

OPEN FILE REPORT 84-32 SAC

1984

This work was performed under Contract No. DE-AC03-83SF11720 for the U.S. Department of Energy, San Francisco Operations Office, by the California Department of Conservation, Division of Mines and Geology.

It was part of a cooperative agreement between the Department of Energy's San Francisco Operations Office and the U.S. Naval Weapons Center, China Lake, California, for joint research and development of geothermal energy at military installations.

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4	Residual gravity map of the area including the Seal Beach Naval Weapons Station.....	Pocket

EXECUTIVE SUMMARY

The purpose of this project was to determine and evaluate sources of geothermal energy at two military bases in southern California, the Long Beach Naval Shipyard and Naval Station and the Seal Beach Naval Weapons Station. One part of the project focused on the natural geothermal characteristics beneath the naval bases. Another part focused on the geothermal energy produced by oilfield operations on and adjacent to each base. Results of the study are presented here for the U.S. Department of the Navy to use in its program to reduce its reliance on petroleum by the development of different sources of energy. The study was accomplished under a cooperative agreement between the U.S. Department of Energy's San Francisco Operations Office and the Department of the Navy's Naval Weapons Center, China Lake, California, for joint research and development of geothermal energy at military installations.

PROCEDURES

The project required research of various reports and data, both published and unpublished, particularly those of the California Department of Conservation, Division of Oil and Gas and of oil companies with leases on or adjacent to the naval bases. Important field investigations included the measurement of well-head temperatures of fluids produced from selected oil wells at each naval base and a detailed gravity survey of the Seal Beach naval base and vicinity. The well-head temperatures were needed to evaluate individual wells as sources of geothermal energy, while the gravity survey attempted to discover subsurface geologic structures that might contain geothermal fluids of temperatures higher than those predicted by the regional geothermal conditions.

FINDINGS AND CONCLUSIONS

Each naval base is underlain by many thousands of feet of sedimentary rocks heated by thermal conduction from deeper crystalline rock; the anomalous rise of high-temperature water from great depths by thermal convection along open, near-vertical fractures in the sediments is probably of minor extent. Furthermore, there are no known bodies of magma beneath either naval base. The rate of increase of temperature with depth (geothermal gradient) beneath the Long Beach naval base is almost twice the earth's average rate, while below the Seal Beach naval base, the rate of increase is a little above average. A temperature of 212°F (boiling point of water at sea level) is expected at depths of about 5,300 feet at the Long Beach naval base and about 6,700 feet at the Seal Beach naval base. At both bases, the sedimentary rocks below a depth of a few thousand feet contain saline waters of very poor chemical quality. The rate of movement of water through the sedimentary rocks tends to decrease with depth because of the weight of compaction from overlying layers; therefore, the hottest rock formations are generally the least permeable. Furthermore, as depth increases, it becomes less likely that the sedimentary rocks will be naturally replenished with water if the existing water in them were to be removed by geothermal wells.

To attain the minimum temperatures (approximately 230°F) necessary to produce small amounts of electricity from a generator placed on a geothermal well, the well would probably have to be drilled to at least 6,000 feet at the Long Beach naval base and at least 7,500 feet at the Seal Beach naval base. For generation of large quantities of electricity by a power plant, temperatures of at least 300°F are needed, which would require drilling to at

least 7,500 feet at Long Beach and about 10,000 feet at Seal Beach. At these depths, however, the sedimentary rocks are likely to be insufficiently permeable to provide adequate fluid to the wells for the generation of economic amounts of electricity. Regarding sufficient temperatures and permeabilities for nonelectrical uses of geothermal energy at either base, these can be attained at shallower depths than those mentioned, although the economic value of this heat is less than that of heat capable of production of electricity. At the shallowest depths, the sediments will be most permeable, yet the temperatures will be insufficient even for most nonelectrical uses. At the Seal Beach naval base, the gravity survey did not reveal any unknown structures that might be potential sites for drilling to produce geothermal fluids for electrical or nonelectrical uses.

A few centralized fluid-processing facilities, associated with oilfield operations at or near both naval bases, process waters that contain low-grade heat (<125°F) that might be applied to nonelectrical uses of energy at each base. At Long Beach, the most promising facility is Champlin Petroleum Company's "Island" injection plant, which is about 200 meters north of the base and processes approximately 5,200 gallons/minute of 112°F-water. A less-promising facility is Long Beach Oil Development Company's "Pier E" injection plant, which is on the naval base; it contains about five times less thermal energy than the "Island" plant. Because retention of heat in these facilities aids the recovery of oil, neither facility's operator has been inclined to support the extraction of heat from the facilities for outside uses, although this attitude may change for technological or economic reasons. At Seal Beach, the central facility at RCU Operator's "Alamitos" lease is a candidate for extraction of heat for use on the naval base, although its processed volume of about 80 gallons/minute of 122°F-fluid (60 gallons/minute of water) may be too small for economic use. The operator is interested, however, in such a project as there is no need to retain heat in the water separated from the oil.

At the Long Beach naval base, well-head temperatures on oil wells probably range between about 86° and 161°F, with rates of production generally less than 20 gallons/minute. At the Seal Beach naval base, well-head temperatures range from about 81° to 163°F, with rates of production generally less than 10 gallons/minute. Although the temperatures are high on some wells, the individual rates of production from most if not all wells are probably too small to warrant extraction of heat at well-heads for uses on either base.

RECOMMENDATIONS

At this time, drilling of geothermal wells on either naval base is not recommended for several reasons. Most importantly, the wells would have to be drilled to and operated at uneconomical depths compared to the economic value of the heat that would be produced from them. An alternative to drilling new wells, however, may be the conversion of a few oil wells to geothermal wells. This idea was not studied here, but may be worthy of a brief investigation to determine if it would be economical.

A brief study of extraction of heat at the "Island" and "Pier E" facilities for use on the Long Beach naval base and at the "Alamitos" facility for use on the Seal Beach naval base is recommended. The first step in this study is to determine the owners of the legal rights to the heat in the facilities. The next step is to ascertain if these owners and the operators

of the facilities (if different from the owners of the legal rights) are willing to cooperate in a possible project to extract heat for use on the bases. Finally, if these parties are agreeable, then an engineering study of each facility and each naval base's consumption of energy should determine if the project will be economical.

In the future, when the oil fields near depletion of their reserves, it is recommended that conversion of the oilfield operations to the production of thermal water for uses on the bases be considered.

INTRODUCTION

PURPOSE AND LOCATION OF STUDY

The main purpose of this study was to determine the characteristics of geothermal energy beneath two military bases in southern California operated by the U.S. Department of the Navy. One base, the Long Beach Naval Shipyard and Naval Station is in Los Angeles County, while the other, the Seal Beach Naval Weapons Station, is in Orange County, about 10 kilometers away (Figure 1). Parts of both naval bases are situated within oil fields, the former in Wilmington Oil Field, the latter in Seal Beach Oil Field. An important part of the study involved the oilfield operations on and immediately adjacent to the bases; these were also investigated as potential sources of geothermal energy.

The Department of the Navy determined that the geothermal characteristics of each base should be studied as part of the Navy's program to reduce its dependence on petroleum by the development of different sources of energy. The Department of the Navy and the U.S. Department of Energy agreed to the investigation under a cooperative agreement between the Naval Weapons Center, China Lake, California, and the Department of Energy's San Francisco Operations Office for joint research and development of geothermal energy at military installations. The Department of Energy provided funds for the study under contract number DE-AC03-83SF11720, which was in effect from September 1983 through May 1984.

PROCEDURES

Various reports and data, both published and unpublished, were researched for this project. Among the most important sources of information were the California Department of Conservation, Division of Oil and Gas and the various oil companies with leases and operations on or adjacent to each naval base.

Important field investigations by the Division of Mines and Geology included the measurement of well-head temperatures of fluids produced from selected oil wells at each naval base and a detailed gravity survey of the Seal Beach Naval Weapons Station and vicinity. The former aided our evaluation of individual oil wells as sources of geothermal energy, while the latter attempted to improve our knowledge of geologic structures that might contain high-temperature geothermal fluids.

PREVIOUS STUDY

Previous studies of geothermal resources in the coastal area near Los Angeles are few and mainly of a reconnaissance nature. Reports by Robinson (1974), Keene (1974), Saltzman (1978), and Higgins (1981) discussed the geothermal resources of Los Angeles County as a whole. The last report focused on oilfield operations in the County as sources of geothermal energy. Some data compiled in the present report were derived from that study.

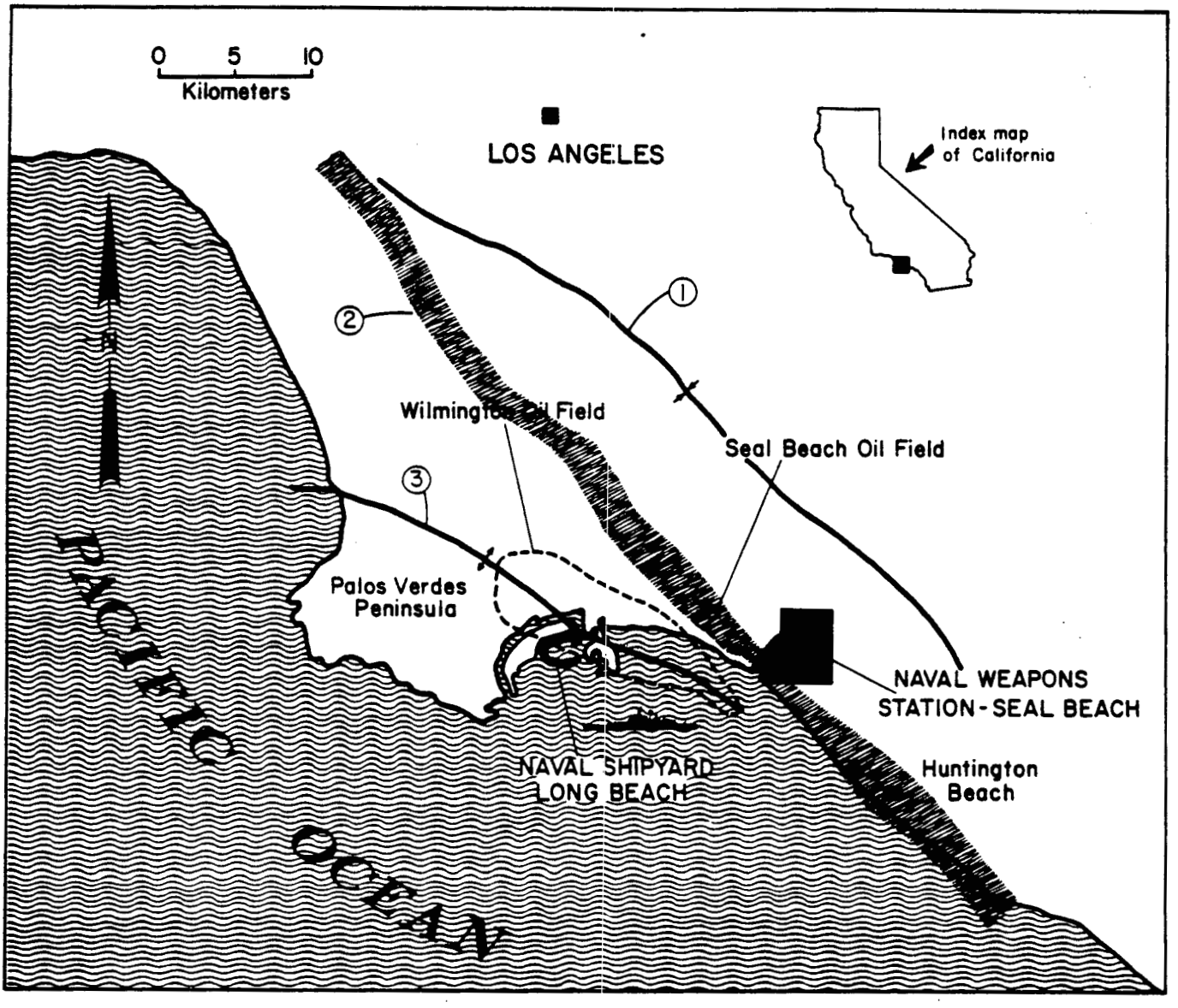

FIGURE 1 - Locations of the Long Beach Naval Shipyard and Naval Station and the Seal Beach Naval Weapons Station relative to the Wilmington Oil Field and Seal Beach Oil Field. Principal geologic structures in the Los Angeles basin are 1) Downey syncline, 2) Newport-Inglewood fault zone, and 3) Torrance-Wilmington anticline.

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REGIONAL GEOLOGIC SETTING

STRATIGRAPHY AND STRUCTURE

Both the Long Beach Naval Shipyard and Naval Station and the Seal Beach Naval Weapons Station are situated above what is termed geologically the "Los Angeles basin." In simplified view, this extensive sedimentary basin comprises a Mesozoic crystalline basement overlain by a substantial thickness of predominantly-marine Cretaceous and Cenozoic sedimentary rocks. According to Yerkes and others (1965), depths to the basement range from as little as a few thousand feet near downtown Los Angeles to as much as about 31,000 feet approximately 25 kilometers north-northwest of the Seal Beach Naval Weapons Station.

The basin has been extensively folded and faulted and is dominated structurally by the northwest-trending Downey syncline (Figure 1). To the west, the syncline is disrupted by the Newport-Inglewood fault zone, an active right-lateral wrench zone, which also trends northwest and passes through the southwest part of the Seal Beach Naval Weapons Station. Still farther west is the northwest-trending Torrance-Wilmington anticline above the southwest flank of which are situated the Long Beach Naval Shipyard and Naval Station.

HYDROLOGY

The ground water hydrology of much of the Los Angeles basin has been extensively discussed by Poland (1959), Poland and others (1956), Poland and others (1959), and the California Department of Water Resources (1961, 1967, 1968). These reports deal mostly with the shallowest aquifers (<1500 feet deep) and are thus not particularly useful for study of the deeper, hotter aquifers of the basin. Information on the deeper aquifers is more sparse and is derived mainly from the drilling and development of oil fields.

Fresh ground water (defined here loosely as water with total dissolved solids less than about 1,000 parts per million) is mainly at depths of less than a few thousand feet in the Los Angeles basin. Below these depths, the sedimentary rocks are saturated with saline waters that were trapped in pore spaces when the sediments were deposited in the oceans that covered the basin millions of years ago. The term "saline", as used here, also includes brackish waters, which typically contain about 1,000-10,000 ppm total dissolved solids and are generally present in the uppermost part of the saline zone. The saline waters have been altered chemically since they were first entrapped but are still dominated by ions of sodium and chloride; the total dissolved solids of most fall in the range of 20,000-35,000 ppm.

In general, the base of the fresh-water zone in the basin is considered by most workers to be the base of the Upper Pliocene Pico Formation and its equivalents. For practical purposes, the base of ground water in the basin is the top of the crystalline basement, which is inherently impermeable except where open fractures are present.

The hydraulics of the basin's ground water system are important in regard to its potential as a source of geothermal fluids. The proportion of replenishment of the entire body of ground water by surface recharge is small as indicated by the high ratio of saline water to fresh water in the

sedimentary section. One reason for this minor contribution is the relatively low precipitation in the Los Angeles area, which averages about 10-15 inches per year. Furthermore, the deeper saline zones of the basin become increasingly cut off with depth from the possibility of surface recharge because of faulting and impermeable shale layers. Thus, the deepest sedimentary rocks contain essentially closed hydrologic systems.

Over much of its length and depth, the Newport-Inglewood fault zone is a semi-permeable to impermeable barrier to the movement of ground water (Poland and others, 1956). Fresh ground water moving westerly is impeded so that water levels are generally higher east of the fault zone. Conversely, in many places, the fault zone prevents intrusion of sea water from the west where excessive pumping of ground water has lowered the fresh-water head.

GEOTHERMAL CHARACTERISTICS

The flow of heat through the Los Angeles basin to the ground surface is largely by conduction. Heat generated in the mantle and crustal basement rocks rises through the overlying predominantly-marine sandstones and shales at an average rate estimated here to be about 70 milliwatts/meter^2 based on two heat-flow measurements in the vicinity of the Los Angeles basin (Higgins, 1980). This quantity is a little above the average heat flow from the earth, where "average" is about 63 milliwatts/meter^2.

The abundant shale in the sedimentary section of the basin acts as a blanket of thermal insulation over the basement because of the shale's low thermal conductivity. This low thermal conductivity and the above-average flow of heat from the basement and below have combined to produce a geothermal gradient in the basin that overall is above normal, where "normal" is about 1.7°F/100 feet or 3.0°C/100 meters. Gradients computed by Higgins (1981) for various oil fields in the basin ranged from about 1.7 to 3.1°F/100 feet (3.0 to 5.6°C/100 meters).

In comparison of geothermal gradients to depths to basement, it appears that gradients are highest over structural highs (anticlines) and lowest over structural lows (synclines). The explanation for this may be that in the former, the highly conductive basement rocks are closer to that part of the sedimentary section where temperatures are normally measured. If depth to basement is too shallow, however, there will be insufficient thermal insulation by overlying sedimentary rocks (sedimentary rocks are too thin) to sustain high gradients (Higgins, 1981). Preliminary observations suggest that the optimum depth to basement for the highest geothermal gradients in the Los Angeles basin is about 4,000-6,000 feet.

Despite the above-normal geothermal gradient and heat flow in the Los Angeles basin, there are few known convective geothermal anomalies. A few thermal springs (<120°F) discharge on the Palos Verdes Peninsula (Figure 1), but their low temperatures and flow rates indicate they are of minor importance. There are a few thermal water wells in the basin (Higgins, 1981), but they are only marginally warm and may reflect more the depth of the wells rather than truly anomalous geothermal conditions. Finally, high-temperature geothermal systems related to shallow igneous intrusions are apparently absent; the youngest known volcanic rocks in the Los Angeles basin are Miocene (>6 million years old), which are too old to produce present-day geothermal anomalies.

During the late 1940's, an exploratory oil well, Seguro No. 1, reportedly encountered temperatures estimated at 424°F at approximately 9,100 feet in the Huntington Beach Oil Field, about 10 kilometers southeast of the Seal Beach Naval Weapons Station (Figure 1). Such high temperatures have not been duplicated anywhere else, however, in the thousands of oil wells that have been drilled in the Los Angeles basin. Apparently Seguro No. 1 fortuitously intersected an open fracture in the Newport-Inglewood fault zone that contained thermal water derived from much greater depths in the earth's crust.

LONG BEACH NAVAL SHIPYARD AND NAVAL STATION

PHYSICAL SETTING

The Long Beach Naval Shipyard and Naval Station occupy a portion of heavily industrialized Terminal Island, which is the nucleus of the Los Angeles-Long Beach harbor (Plate 1). The base is about 3 kilometers southwest of downtown Long Beach. Major activities at the base include the maintenance and repair of warships, at a large complex of drydocks, and the supply of warships at the adjacent station. The surrounding commercial harbor is one of the busiest in the world and both it and the naval base are partly within Wilmington Oil Field, the largest cumulative oil-producer in California.

SUBSURFACE GEOLOGY

Because the naval base is entirely covered by Quaternary alluvium and artificial fill, the subsurface stratigraphy and structure have been deciphered mostly by oil-well drilling and geophysical exploration.

Stratigraphy

In a general way, the stratigraphy beneath the naval base is, with minor differences, the same as that of the Los Angeles basin as a whole (Figure 2). Here, the basement is schistose (Catalina Schist) and is overlain to a depth of about 5,900-8,500 feet by alternating sandstones, shales, and some conglomerates of Tertiary and Quaternary age. The Upper Miocene Puente Formation and the Lower Pliocene Repetto Formation comprise most of these sedimentary rocks. The various oil-producing zones within the sedimentary section are shown in Figure 2.

Depth to basement is shallowest beneath the northeast corner of the naval base (Pier E) and steadily increases to the southwest (Figure 3).

Structure

The entire area of the naval base overlies part of the southwest limb of the asymmetric Torrance-Wilmington anticline, the axis of which is just beyond the northeast corner of the naval base (Figure 4). The folding affects only the Repetto and older formations. Beds of the southwest limb dip about 15°-25° on the average and thicken away from the axis of the anticline, which suggests that growth of the anticline was concurrent with deposition.

Beds younger than the Repetto Formation are largely undeformed by faults. The Repetto and older formations are extensively fractured by a group of north-trending normal faults, several of which pass beneath the naval base (Figure 4, Plate 1). The largest faults are boundaries for several "fault blocks" designated by Roman numerals. Portions of fault blocks I, II, III, and IV underlie the naval base. The Cerritos fault is the boundary between blocks II and III and dips easterly about 45° (Mayuga, 1970). The Powerline fault is the boundary between blocks III and IV and dips westerly about 55° (Mayuga, 1970). At depth, the Cerritos fault eventually cuts off fault block III beneath the naval base. The extent and character of the faults in the schist basement are unknown because of limited drilling and poor stratigraphic control.

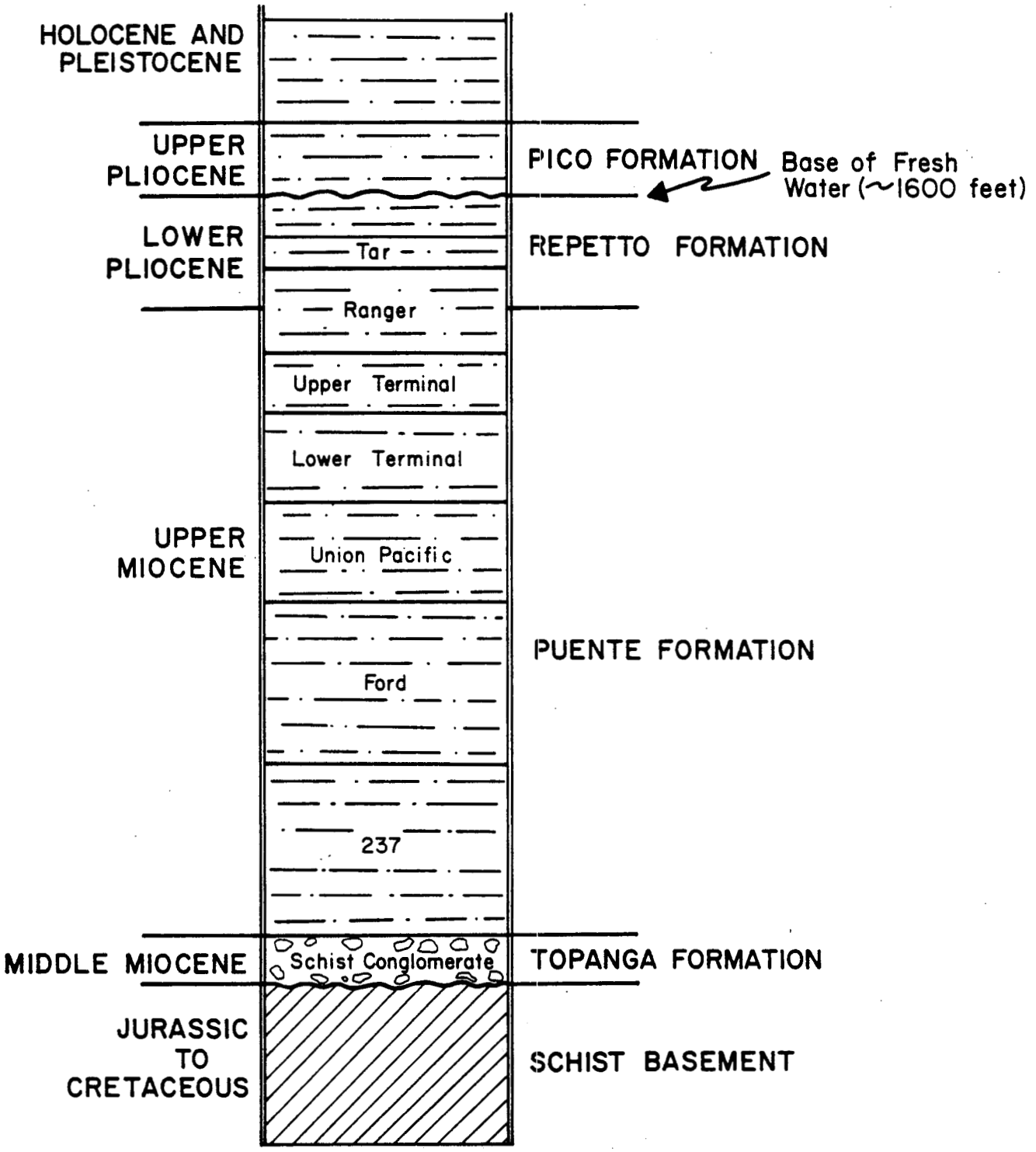

FIGURE 2 - Generalized stratigraphy beneath the Long Beach Naval Shipyard and Naval Station. Names within the column are production zones of the Wilmington Oil Field. The stratigraphy was modified from Mayuga (1970), Yerkes and others (1965), and the California Division of Oil and Gas (1974).

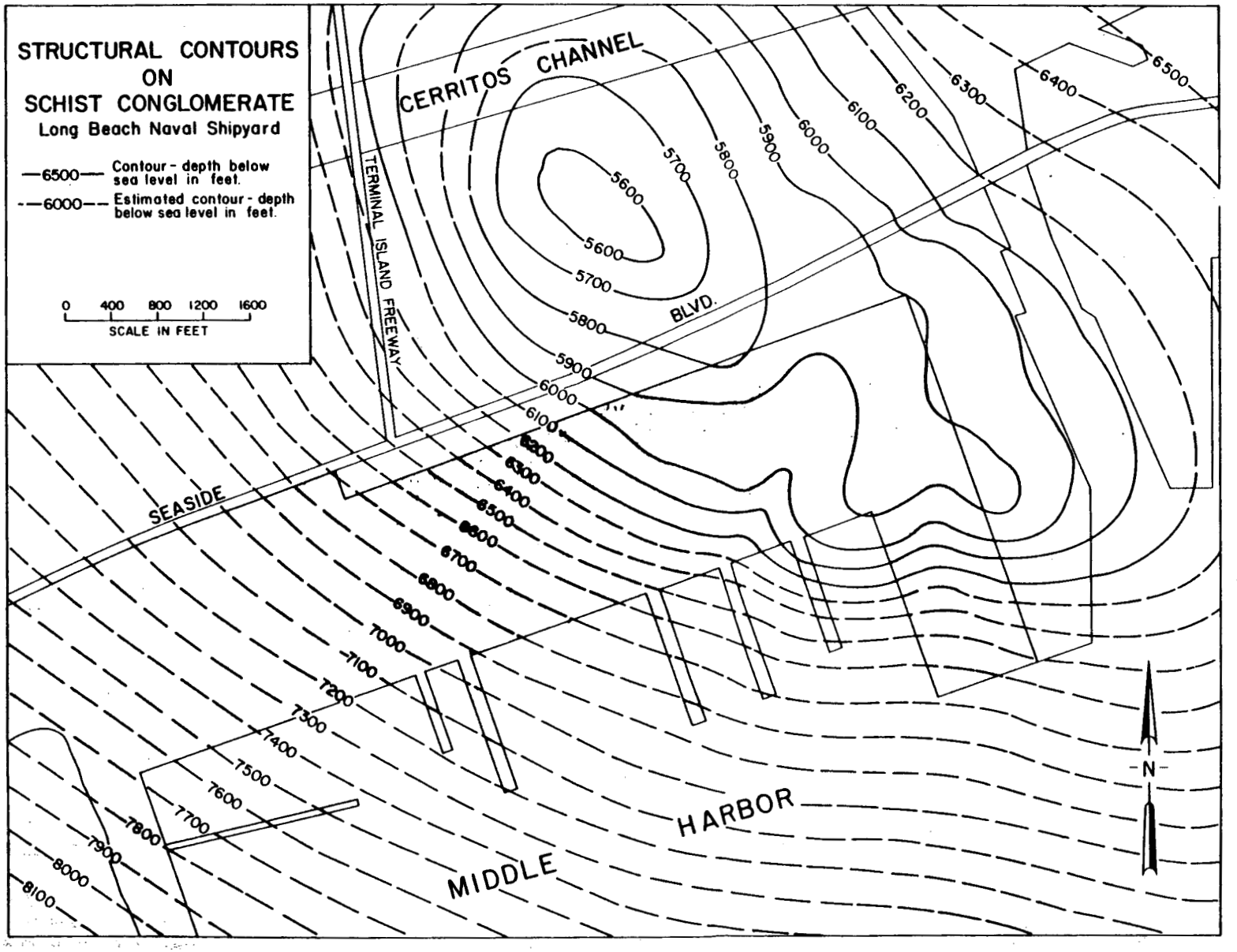

FIGURE 3 - Structural contours on top of the Schist Conglomerate, which essentially represents depth to basement. Main part of the Long Beach Naval Shipyard and Naval Station is shaded. The data are modified from an unpublished field map (1982) of the Long Beach Oil Development Company.

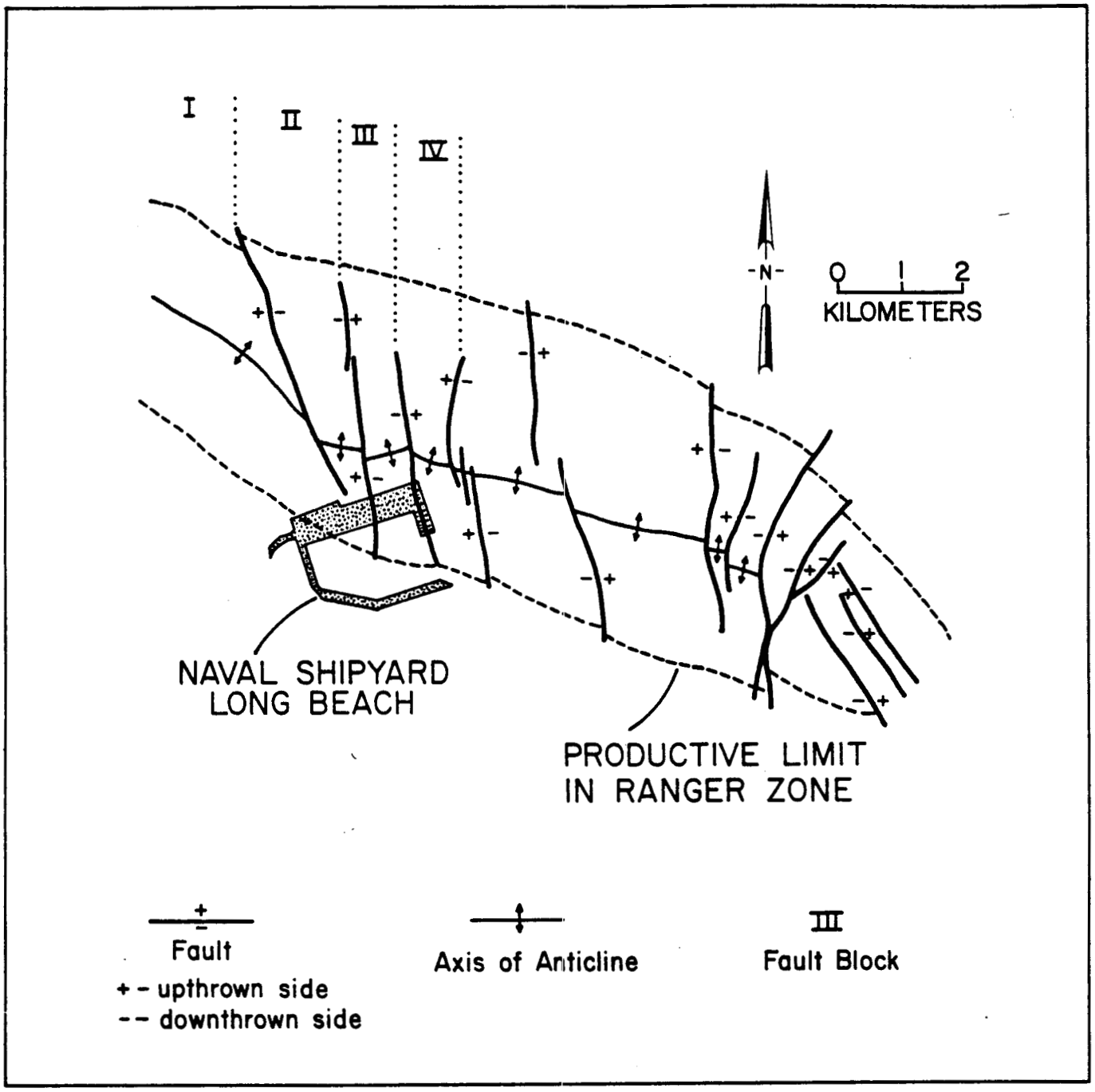

FIGURE 4 - Structure of the Wilmington Oil Field in the vicinity of the Long Beach Naval Shipyard and Naval Station. Both the productive limit and faults through the top of the Ranger zone are shown. The data are after the California Division of Oil and Gas (1974).

Geothermal Gradient

Figure 5 is the only known curve of geothermal gradient for the central area of the Wilmington Oil Field, which includes the part of the field that underlies the naval base. The curve was compiled in 1949 from 84 temperature surveys measured in oil wells in the field. At this time, the solid-line segment of the curve had a gradient of about 3.1°F/100 feet (5.6°C/100 meters), which is almost twice the earth's average. The gradient is also equal to the highest known in the Los Angeles basin and probably results from the optimum combination of a shallow basement high insulated by sedimentary rocks of low thermal conductivity.

More recently, the Tar, Ranger, and Upper Terminal zones have been extensively flooded with water of somewhat variable temperature for purposes of secondary recovery of oil and control of subsidence. As a result, the geothermal gradient in these zones may differ (probably lessens) from that computed in 1949. Because there has been little or no water-flooding in the deeper zones (Lower Terminal, Union Pacific, Ford, 237, and Schist Conglomerate), the 1949 gradient is probably still valid below the Upper Terminal zone. The base of the Upper Terminal zone ranges from about 3,500 feet deep beneath the northeast part of the naval base to over 5,000 feet deep beneath the southwest part.

A temperature of 212°F (boiling point of water at sea level) is expected at a depth of approximately 5,300 feet under the naval base. At the shallowest depth (5,900 feet) of the contact between the basement and sedimentary rocks beneath the naval base, temperatures are probably about 230°F. At the deepest point of this contact, temperatures may be about 325°F, assuming that there is little lateral decrease of the 1949 gradient away from the axis of the anticline, where the gradient was surveyed.

PHYSICAL AND CHEMICAL PROPERTIES OF THE ROCK UNITS

Shallow (Fresh-Water) Sediments

The unconformable contact between the Upper Pliocene Pico Formation and the underlying Lower Pliocene Repetto Formation is the approximate lower limit of fresh-water aquifers beneath the naval base. This limit ranges from about 1,600 to 1,900 feet in depth (Plate 1). Above these depths, there are several unconsolidated sand and gravel aquifers, which are unaffected by the extensive block-faulting of the Torrance-Wilmington anticline. The scarcity of faults allows unimpeded hydrologic continuity within the sediments. This continuity, in combination with the lack of consolidation of the sediments, results in aquifers capable of producing large quantities of water, some of which is saline. The salinity has been caused by excessive pumping of ground water in the area, which allowed sea water to invade formerly fresh-water aquifers.

Temperatures of water in these shallow zones are expected to be no more than about 100°F. A group of water wells at the Southern California Edison Company's power plant, just north of the naval base, had recorded temperatures in the range of 70°-79°F during several years of measurement (California Department of Water Resources, 1980). A temperature of 98°F measured in one of those wells by the Department of Water Resources (1980) is considered spurious.

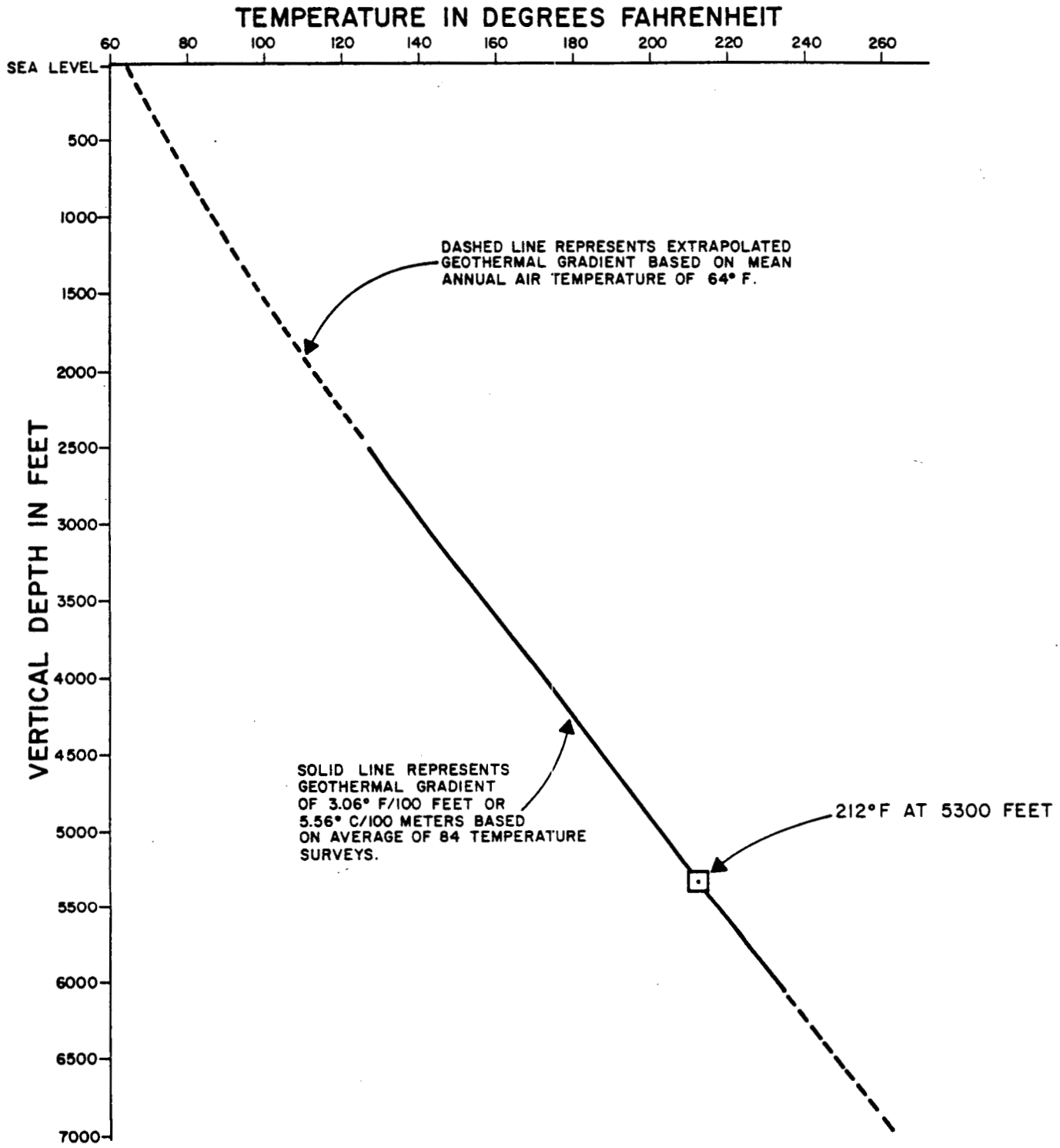

FIGURE 5 - Curve of geothermal gradient for the Wilmington Oil Field, compiled in 1949. The curve was obtained from unpublished files of the City of Long Beach, Department of Oil Properties.

Deep (Saline-Water) Sedimentary Rocks

Below the Pico Formation, the sedimentary rocks are more consolidated, hotter, and saturated with saline water. Oil is produced from 8 zones, which extend almost continuously from the base of the Pico Formation to the top of the crystalline basement (Figure 2).

Average reservoir properties of the 8 zones are compiled in Table 1. Each zone is generally several hundred feet thick and consists mainly of alternating sandstones and shales in about equal volumes; the former generally serve as reservoirs for the oil. In general, porosities and permeabilities decrease with depth. Originally, reservoir pressures increased with depth, but have since been reduced by the production of oil. The range of permeabilities (100-1,600 millidarcies) is low to moderate. The permeability of the schist conglomerate is unknown, but could be locally high where extensively fractured. The gravity of oil produced increases with depth and probably reflects the increase in temperature. Total dissolved solids in waters of the different zones range from about 17,000 to 34,000 ppm. All waters are of the sodium chloride type, which is particularly corrosive. Typical chemical analyses from a few of the upper zones are presented in Table 2.

Basement

The crystalline basement is expected to be largely nonwater-bearing because it is inherently impermeable. Open fractures in the basement may allow movement of ground water, but the total volume will be very small compared to that in the overlying sedimentary rocks.

TABLE 1 - Physical and chemical properties of oil-producing zones in the Wilmington Oil Field, as modified from Mayuga (1970) and unpublished records of the California Division of Oil and Gas.

ZONE	SHALLOWEST DEPTH TO TOP OF ZONE* (Feet)	AVERAGE TEMPERATURE (°F)	AVERAGE THICKNESS (Feet)	APPROXIMATE AVERAGE % SAND	INITIAL RESERVOIR PRESSURE (psi)	AVERAGE POROSITY (%)	AVERAGE PERMEABILITY (Md)	GRAVITY OF OIL (°API)	TDS IN WATER (ppm)
Tar	2200	118	300	40	1040	30-40	1000-1600	12-15	28,000
Ranger	2500	127	500	>30	1210	35	700-1600	12-25	31,700
Upper Terminal	3000	142	500	50-70	1390	32-35	700	14-25	32,600
Lower Terminal	3500	157	500	50-70	1610	30-33	450 - 500	20-31	32,000
Union Pacific	4000	172	500	20-25	1950	20-30	150 - 190	25-32	34,200
Ford	4500	187	1000	20-25	2150?	25	100	28-32	25,700
237	5500	218	400	40	2567	25	275	28-32	23,900
Schist Conglomerate	5900	230	<100	?	2750?	20-25?	<500?	28-32	17,100

* Beneath Long Beach Naval Shipyard and adjacent Naval Supply facilities only.

TABLE 2 - Chemistry of waters produced from selected zones in the Wilmington Oil Field, as modified from unpublished records of the California Division of Oil and Gas.

ZONE	DATE	pH	Na	NH_4	Ca	Mg	Ba	Fe	SO_4	Cl	HCO_3	CO_3	B_4O_7	I	SiO_2	TDS
Tar	8/10/65	7.6	11,640	88	322	280	25	T	0	19,290	226	0	181	76	37	32,165
Ranger	8/10/65	7.7	10,050	190	349	265	19	<0.1	<2.0	16,880	525	0	129	127	43	28,577
Lower Terminal	5/19/72	7.5	10,740	170	535	235	44	2	T	18,085	590	0	245	70	80	30,835

OILFIELD OPERATIONS

Most of the naval base is underlain by one or more of the productive oil zones described previously. Several oil companies operate wells and surface facilities just north and east of the base (Figure 6, Plate 1); many wells are slant-drilled beneath the base. Most oil and associated water are produced from the Tar, Ranger, Upper Terminal, and Lower Terminal zones. Relatively small amounts are produced from the 4 deeper zones.

Because the oil wells produce oil and water from several thousand feet deep, the temperature of the oil and water is elevated and in some cases hot depending on the depths of zones of production and the rate of production of each well. The hot fluid from each well is piped to centralized collection and disposal facilities, which process large volumes of oil and water daily. The combination of elevated temperature and large volume of fluid make the oilfield operations in Wilmington Oil Field a ready-made source of geothermal energy.

Production and Injection Wells

A group of about 175 production and injection wells along the north perimeter of the naval base and on Pier E is operated by the Long Beach Oil Development Company (LBOD) as its "W" lease (Figure 6, Plate 1). North of Seaside Boulevard, Champlin Petroleum Company and, to a lesser extent, Mobil Oil Corporation and Exxon Company, U.S.A. have oil leases with many wells. Of these four companies, the operations of LBOD and Champlin are of primary interest as possible sources of thermal energy for the naval base. The Mobil and Exxon operations will not be discussed further because of their smaller size and greater distance from the base.

The important variables in the consideration of individual wells near the naval base as sources of thermal energy are temperature and rate of production or injection. In November 1983, well-head temperatures were measured on 13 production wells on LBOD's "W" lease; the wells were selected based on their rates and zones of production (Table 3). The temperatures ranged from 86° to 161°F with most between 115° and 125°F. Wells 236B, 285A, and 289 were selected in particular because of their high rates of production compared to all other wells on the lease. It was thought that the high rates might be influenced by contributions from permeable fault zones with access to relatively high-temperature fluids. The temperatures in these 3 wells ranged only from 118°-123°F, however. The well (328A) with the highest temperature of the 13 had an average production of 12 gal/minute from the low-permeability Ford zone. We suggest that the 13 measured temperatures are representative of all the LBOD production wells and that most, if not all, well-head temperatures will fall within the reported range.

Most production wells produce fluids with standard beam-rod pumps, which are designed for relatively small rates of production. Higher rates are attained in the few wells with bottom-hole electric pumps. The range of production rates for wells on LBOD's "W" lease during September 1983 was about 1 gal/minute to almost 100 gal/minute (well 289); most wells produce less than 20 gal/minute. Because this part of the oil field has been in production for many decades, the percentage of water produced with the oil from the wells is very high, generally more than 90%.

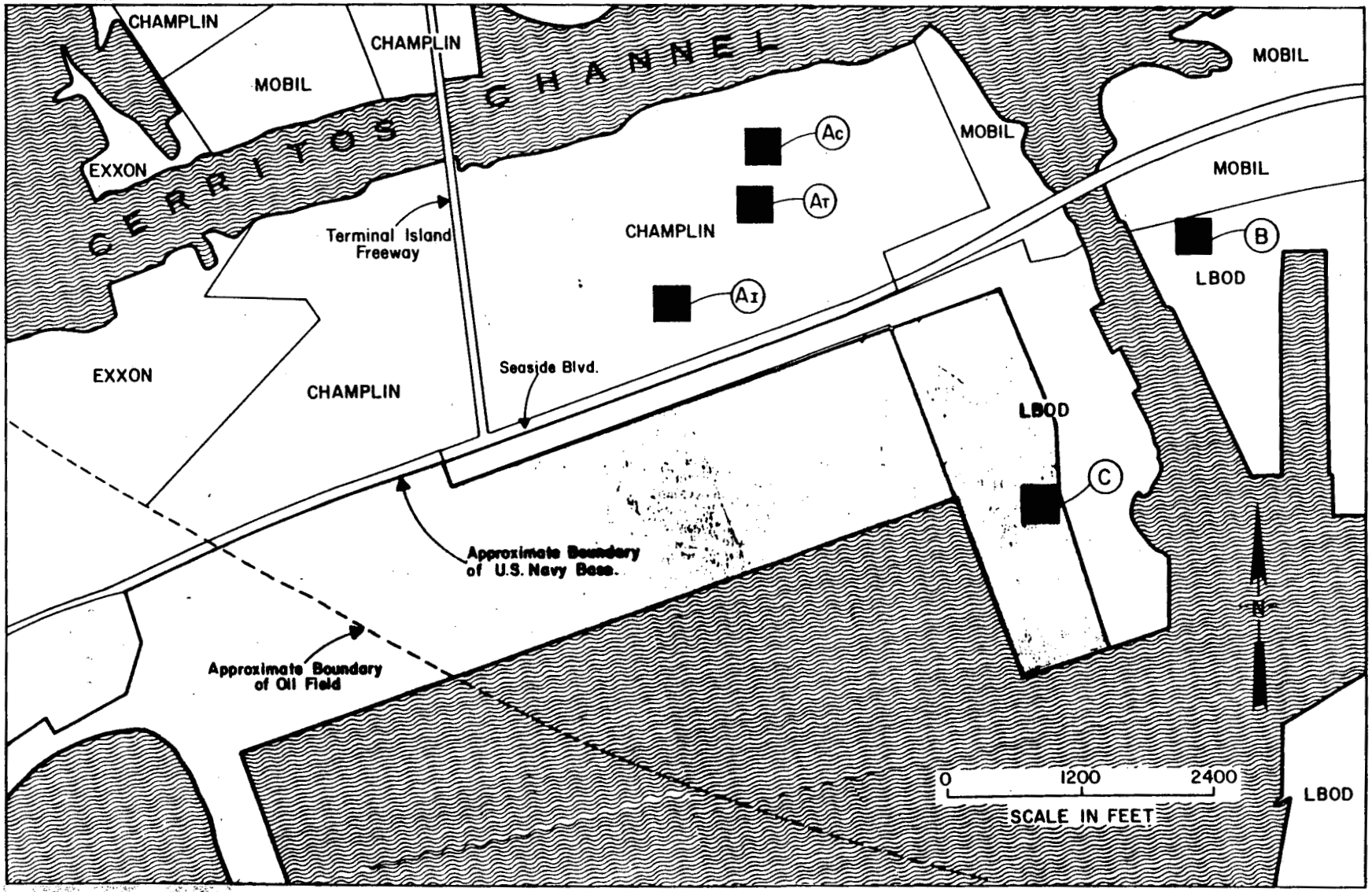

FIGURE 6 - Locations of oil field leases and central processing facilities on or adjacent to the Long Beach Naval Shipyard and Naval Station. Names of operators are shown on the leases. Facilities are as follows: A_C - "Island" collection unit, A_T - "Island" water treatment unit, A_I - "Island" injection plant, B - "XY" collection and injection facility, C - "Pier E" injection plant. The naval base is shaded.

TABLE 3 - Well-head temperatures and rates of production from selected oil wells on the LBOD "W" lease on and adjacent to the Long Beach Naval Shipyard and Naval Station. The temperatures were measured in November 1983. The volumes are averages for September 1983, as provided by the Long Beach Oil Development Company.

WELL	TEMPERATURE (°F)	VOLUME (GAL/MIN)
W - 328A	161°	12
138B	145°	14
35D	136°	34
248A	124°	29
236B	123°	70
29C	122°	14
214	122°	7
285A	118°	61
289	118°	98
142B	117°	19
131A	104°	9
79C	100°	2
98B	86°	2

Several dozen injection wells are distributed throughout the "W" lease (Plate 1). Rates of injection ranged from 9 to 206 gal/minute in September 1983; the average of the 41 injection wells on line during the month was 61 gal/minute. The temperature of the injected water was about 100°F.

Collection and Disposal of Fluids

All fluids produced from the oil wells on and adjacent to the naval base are transported to centralized facilities for processing and disposal. These facilities perform one or all of the following: collection of produced oil and water, separation of oil and water, treatment of water for disposal, and distribution of water to wells for subsurface injection. In the latter process, all waters are injected into production zones to aid recovery of oil.

Figure 6 and Plate 1 show the locations of central facilities on or adjacent to the naval base. Table 4 lists the volumes, temperatures, and amounts of thermal energy of the water processed in each facility.

All fluids produced from LBOD's "W" lease on Terminal Island are transported to Champlin Petroleum's "Island" processing facility, which comprises 3 individual units. In 1981, the collection unit (A_C on Plate 1) handled about 7,000 gal/minute of water at approximately 115°F, while the injection unit (A_I) distributed over 5,000 gal/minute at about 112°F. Production from LBOD's "X" and "Y" leases on the piers east of Pier E is processed and distributed at that company's "XY" facility, which is east of Terminal Island. In 1981, about 1,400 gal/minute of water were processed there with an average drop in temperature from 125° to 104°F. A third facility is the "Pier E" injection plant operated by LBOD. This plant injects about 1,000-1,300 gal/minute of water at approximately 100°F into production zones underlying the naval base. The source of this water is a pair of shallow water wells on the Champlin lease, which tap a shallow aquifer intruded by sea water.

The thermal energy of processed water in these facilities is estimated in Btu/hour based on the difference between the water's initial temperature at the facility and a final temperature of 64°F, which is the mean annual air temperature. The equation is:

$$E = (v)(k)(T_i - T_f)(t)(s) \qquad (1)$$

where
- E = Btu/hour (heat lost when 1 lb. of water loses 1 F° in temperature),
- v = volume of water in gal/minute,
- k = weight of one gallon of water = 8.33 lb.,
- T_i = initial temperature of water in facility,
- T_f = final temperature of water after extraction of heat = 64°F,
- t = 60 minutes/hour,
- s = specific heat of water = 1 Btu/lb.-F° (Variations in this constant caused by high salinity and temperature of the water are considered negligible for the purposes of this calculation.)

The energy at these facilities, assuming that sufficient heat were extracted to lower the water temperature to 64°F, is in the range of

TABLE 4 - Temperatures, volumes, and thermal energy of water processed in the central oil field facilities on and adjacent to the Long Beach Naval Shipyard and Naval Station. Figures for the "XY" and "Island" facilities were reported by the operators for 1981, the "Pier E" figures for 1983. "I" means that the water was injected as part of secondary-recovery (water-flood) programs.

FIELD	OPERATOR AND FACILITY	WATER PRODUCTION (gal/min)	TEMPERATURE (°F)	BTU/HOUR @ T_F = 64°F	WATER DISPOSAL (gal/min)	TYPE	TEMPERATURE (°F)	BTU/HOUR @ T_F = 64°F
WILMINGTON	LBOD "Pier E"	——	——	——	1,000–1,300	I	100°	1.80×10^7 – 2.34×10^7
	LBOD "XY"	1,400	125°	4.27×10^7	1,400	I	104°	2.80×10^7
	Champlin "Island"	7,000	115°	17.84×10^7	5,200	I	112°	12.48×10^7

10^7-10^8 Btu/hour. Higher values of T_f, of course, will reduce the energy considerably; consequently, the quantities calculated in Table 4 must be considered maxima in determining the amount of thermal energy available at each facility. Nevertheless, these calculations indicate that the "Island" facility has about 4 times the thermal energy of the "XY" facility and 5-10 times the energy of the "Pier E" facility.

DRILLING OF WELLS TO PRODUCE THERMAL WATER

One way to develop and use the geothermal energy that underlies the Long Beach Naval Shipyard and Naval Station is to drill one or more wells specifically to produce thermal water. We discuss here many factors that must be considered if the drilling of such wells is to be a serious alternative.

Temperature

Despite the relatively high geothermal gradient beneath the naval base, temperatures are insufficient above a depth of about 6,000 feet to generate electricity. They are sufficient, however, for some nonelectrical uses of heat. Generally, temperatures of about 300°F or more are necessary for generation of significant amounts of electricity, although some well-head generators can produce small amounts of electricity from water of about 230°F.

Because of time lag due to pumping of water from depths of several thousand feet, there will be some loss of heat by conduction. The faster the pumping rate, the less loss of heat. This effect is also more pronounced the higher the initial reservoir temperature and the longer the distance the water has to travel to the well-head.

Permeability

Although temperature increases with depth beneath the naval base, permeability generally decreases such that permeabilities below about 4,000 feet are relatively low except for local fractured parts of the Schist Conglomerate. This decrease significantly limits the amount of thermal water a well could produce and may offset the advantage of high temperature. Permeabilities are highest (up to 1,600 md) in the Tar and Ranger zones, but temperatures are only about 150°F or less.

Locally, the Schist Conglomerate zone is probably capable of producing higher volumes than the overlying 237, Ford, and possibly Union Pacific zones, all of which have poor permeabilities. Elsewhere in the Los Angeles basin, the Schist Conglomerate and its equivalents produce hot oil and water from depths equal to or greater than those at Wilmington Oil Field. As an example, in 1981, one well in the Lawndale Oil Field, about 15 kilometers northwest of Terminal Island, was producing about 75 gal/minute of near-boiling water from the Schist Conglomerate at a depth of approximately 8,000 feet (Higgins, 1981). Another example is the Venice Beach Oil Field, about 35 kilometers northwest of Terminal Island, where 5 wells drilled into an equivalent of the Schist Conglomerate were producing a total of about 235 gal/minute of 220°-240°F-water from a depth of approximately 5,500 feet (Higgins, 1981); the operator reported (personal communication, 1981) that the production zone had a very strong water drive. Both the Venice Beach and Lawndale Oil Fields lie on a basement high similar to that at Wilmington Oil Field.

The comparison between the Schist Conglomerate zone beneath the naval base and the zones in the two oil fields farther northwest suggests that the former may be capable of producing moderate quantities of above-boiling water. In places, these quantities could be as high as 100 gal/minute or more for a well with a bottom-hole pump. The main attraction of the Schist Conglomerate, of course, is that it is the hottest sedimentary zone beneath base. Another advantage is that the water in the zone has the lowest total dissolved solids of any of the oil-producing zones.

Recharge

To sustain sufficient rates of production of thermal water from beneath the naval base, it will be necessary to use pumps; the natural water drive will probably be depleted by long-term production of thermal water, if not already done so by oil production.

It is not clear to what extent the saline-water-bearing zones of the ground water reservoir can be naturally recharged as water is pumped from them at high rates. As discussed earlier, the shallow fresh-water recharge from the ground surface extends only to a few thousand feet maximum depth and is limited by the relatively sparse rainfall in the area. Furthermore, with increasing depth, the fracturing and isolation of water-bearing zones become more complex and effective, respectively, such that many or all of the zones with the highest temperatures also have the least likelihood of any recharge as they are depleted. The isolation is evident from Mayuga's (1970) observation that faults in the Wilmington Oil Field prevent fluid migration and communication of pressure. As a result, if there is no natural recharge to the system at the depths considered for production of thermal water, there will be a decline in reservoir pressure and subsidence may occur. Correspondingly, rates of production will decrease.

Effects on Production of Oil

The withdrawal of large amounts of water from beneath the naval base could disrupt current production of oil unless it can be demonstrated that the zone that produces thermal water is hydrologically isolated from the zones that produce oil. This requirement of isolation leaves essentially only the deeper zones as candidates for production. As discussed above, however, these same zones, because of that isolation, may be unable to sustain production.

Subsidence caused by withdrawal of fluid from the oil zones has been a critical problem in the Wilmington Oil Field. The maximum amount (eventually almost 30 feet) occurred beneath the Champlin lease, north of the naval base, during the 1940's and 1950's. Since then, subsidence has largely been arrested by injection of saline water, derived from oil production and shallow aquifers, into the production zones. At Wilmington Oil Field, the injection serves two other purposes: (1) it disposes of the large quantities of water produced with the oil and (2) it increases the energy drive in the oil zones so that more oil is swept to the production wells.

The production of several hundred gallons per minute of thermal water could upset the delicate balance between production and injection currently underway in the field. To prevent this disruption and to maintain reservoir pressure in the zones that produce thermal water, the spent thermal water (or

waters of equivalent chemical character) would have to be injected somewhere back into these zones. Because the spent water would be of relatively low temperature, the injection of it could cause eventual cooling of the zones because the natural heat flow may be insufficient to match the turnover rates of production and injection.

Drilling and Operation of Wells

Before wells can be drilled on the naval base, it must be established who has the subsurface legal rights to undertake such a project. Drilling is a major expense; the cost rises exponentially as the depth increases. In 1979, it cost upwards of a million dollars to drill one geothermal well 5,000-6,000 feet deep (Kunze and others, 1979). It is possible that more than one production well would be needed and certainly one injection well would be necessary. Then there are expenses of completion, operation, and maintenance of the wells. The latter will be expensive because of the poor chemical quality of the water, which causes scaling and corrosion in the wells. More importantly, the cost of pumping must be weighed against the value of the heat in the produced water. Finally, performance of both wells and reservoir must be faithfully monitored to properly sustain the life of the reservoir and to document interference with adjacent production of oil.

Perhaps drilling could be bypassed or reduced in scope if existing oil wells were converted to geothermal wells. This would involve deepening of an existing well and/or shutting off certain zones and perforating others. If permeabilities are adequate, downhole pumps could produce the volumes of thermal water necessary to make such a conversion worthwhile. So that zone temperatures aren't irretrievably cooled by the required injection, a rotational system of production-injection in different wells and zones could be established. This system would allow produced zones to return to their original temperatures so that they could again take their turn in production.

EXTRACTION OF HEAT FROM OILFIELD OPERATIONS

A much simpler and less expensive method of using the geothermal energy present beneath the naval base is to extract heat from surface operations associated with oil production on and adjacent to the base. As discussed earlier, the oil wells overall produce large quantities of thermal water and oil, which are sent to central facilities for processing and disposal. Although the temperatures are lower than those that could be obtained from deep wells drilled strictly to produce thermal water, the expenses of drilling, production, and disposal are already accomplished. In addition, the large quantities of water processed at the central facilities offset somewhat the disadvantage of the water's relatively low temperature. Several considerations related to such extraction of heat are discussed below. For more detail on some of these considerations, the reader is referred to Higgins (1981).

Wells Versus Central Facilities as Sources of Heat

Certain individual production wells are the sources of the highest-temperature water in the oilfield operations adjacent to the naval base. This advantage of high temperature is diminished by the relatively small rate of production from each well. Furthermore, production wells

commonly have down time for maintenance and eventually have to be redrilled or abandoned before the field itself is abandoned.

The injection wells generally have flow rates about 2-3 times the average flow rates of the production wells, but their temperatures are lower than the highest-temperature production wells and are no higher than that of the injection facility from which the fluids came. The wells are also subject to maintenance schedules and periodic inactivity.

In contrast to the wells, the central facilities operate continuously and process enormous quantities of water. The temperature of the water is relatively stable through time. Both the "Island" and "Pier E" injection plants are well-situated for possible applications on the naval base. The "Island" plant is about 200 meters from the nearest boundary of the base, while the "Pier E" plant is on the base. The former is much superior to the latter as a source of thermal energy because of its large volumes of water. Temperatures in both are relatively low, however. The "XY" facility is much less favorably situated mainly because it is across a shipping channel.

Effects of Extraction of Heat on Oilfield Operations

There are two main considerations on how the extraction of heat may affect the oilfield operations. One is chemical equilibria throughout the operations, the other is efficiency of recovery of oil.

Because of the high salinity of the produced waters, there are constant problems of both corrosion and scaling in wells and surface facilities and plugging of sedimentary formations used for injection. These problems can and have been alleviated by appropriate treatment of the waters. Two important variables in this control of chemical equilibrium throughout the oil system and reservoir are temperature and pressure. The decrease of a water's temperature from 120°F to 100°F probably would have little effect on the equilibrium of the system, but a decrease to ambient air temperature (64°F) may have some effect, the extent of which is unknown because of lack of study. Scaling of calcium carbonate and calcium sulfate are the main concerns, but the former appears to be more affected by variations in pressure rather than in temperature. Also, calcium carbonate becomes more soluble as temperature decreases. Calcium sulfate, on the other hand, reaches a peak solubility at about 95°F in pure water and becomes less soluble as temperature increases or decreases from this peak (Patton, 1977); in saline water, this temperature of maximum solubility probably varies.

The retention of heat in an oilfield system may be beneficial to the efficiency of that system. For example, higher temperatures reduce the viscosity of oil and increase mobilization of oil through the reservoir. Heat is particularly important where the oil is highly viscous (low gravity). Such is the case in the Tar and Ranger zones of the Wilmington Oil Field. Consequently, LBOD and Champlin Petroleum try to retain as much natural heat in the oil zones and surface facilities as possible. Another method used to increase mobilization of the oil is the addition of chemicals to the system.

Transfer of Heat

The poor chemical quality of the water produced from the oil leases would require the use of heat exchangers rather than direct circulation of the water

to its intended use. The heat would have to be transferred to a "clean" liquid in a secondary loop system tied to the end use of the heat. Although Terminal Island is heavily industrialized, the "Island" and "Pier E" facilities probably have sufficient space for such a heat-exchanger system. The length of pipeline from the heat-exchanger system to the site of intended use of the heat must be as short as possible because the costs of insulated pipe, its placement, and pumping of the liquid within it are expensive; many geothermal projects are abandoned not because the resource is insufficient but because the cost of the transport system to the application is uneconomical. If the heat transferred to the secondary liquid is inadequate for uses at the naval base, the temperature could be boosted by use of some other fuel. The owner of the heat in the oilfield system and regulation of the heat's cost and use are legal and economic questions that would have to be resolved among the Department of the Navy, the oil companies, and any state or local governmental agencies or private parties with legal rights in the local area.

Longevity of Oilfield Operations

The value of the oilfield operations as sources of thermal energy for the naval base is dependent on the life expectancy of the Wilmington Oil Field. Although fault block III is considered the weakest producer in this part of the field, operators expect the entire field to be functional through at least the year 2000. When the field is eventually depleted of oil, the prevailing economics may be favorable enough so that some wells and central facilities adjacent to the naval base could be converted to production of thermal water for use on the base. This conversion must be planned years in advance, however, so that wells and surface facilities are not allowed to deteriorate beyond economic maintenance or high quality of performance.

SEAL BEACH NAVAL WEAPONS STATION

PHYSICAL SETTING

The Seal Beach Naval Weapons Station covers several square kilometers of flat, mostly undeveloped land east of the downtown area of the city of Seal Beach (Figure 1, Plate 2). It is surrounded by residential and commercial development. The main function of the weapons station is the storage and supply of ammunition for warships, which dock in Anaheim Bay at the station's southwest edge. All the naval base's main buildings are in a narrow corridor along the west side of the base (Plate 2). Much of the southwestern part of the weapons station is a tidal swamp formally designated a national wildlife refuge. The southeasternmost portion of the Seal Beach Oil Field also underlies this area.

SUBSURFACE GEOLOGY

Except for the Upper Pleistocene sediments that comprise Landing Hill along its west boundary, the weapons station is covered by Quaternary alluvium (Figure 7). Consequently, information on the geology beneath the naval base has been derived almost entirely from geophysical exploration and the drilling of oil and water wells. Unlike the Long Beach naval base, oilfield development has affected only a small portion of the weapons station; therefore, most of the subsurface geology is poorly known.

Stratigraphy

The stratigraphy beneath the weapons station is similar in general to that at the Long Beach naval base (Figure 8). Granitic and schistose rocks comprise the basement, which is overlain by mostly alternating sandstones and shales of predominantly Tertiary age; under the northeastern part of the naval base, Cretaceous(?) sedimentary rocks underlie the Tertiary rocks. Altogether, the sedimentary rocks beneath the weapons station are about twice as thick as those at the Long Beach naval base. The Puente and Repetto Formations are the thickest units and produce all the oil in the Seal Beach Oil Field. The various oil-producing zones in the field are labeled in Figure 8.

The minimum depth to basement beneath the weapons station is estimated to be at least 12,000 feet, under Anaheim Bay (Figure 9). Only one well, Conoco's Bixby A No. 62, is known to have penetrated either to or very near the top of basement in the area. This well was drilled to 12,162 feet northwest of the weapons station, just west of the Newport-Inglewood fault zone (Figure 9). The greatest depth to basement is expected beneath the northernmost part of the weapons station at about 20,000-22,000 feet.

Structure

The general structure beneath the weapons station includes three main features. From west to east, these are: the easternmost extension of the Torrance-Wilmington anticline, the Newport-Inglewood fault zone, and the southwest limb of the Downey syncline.

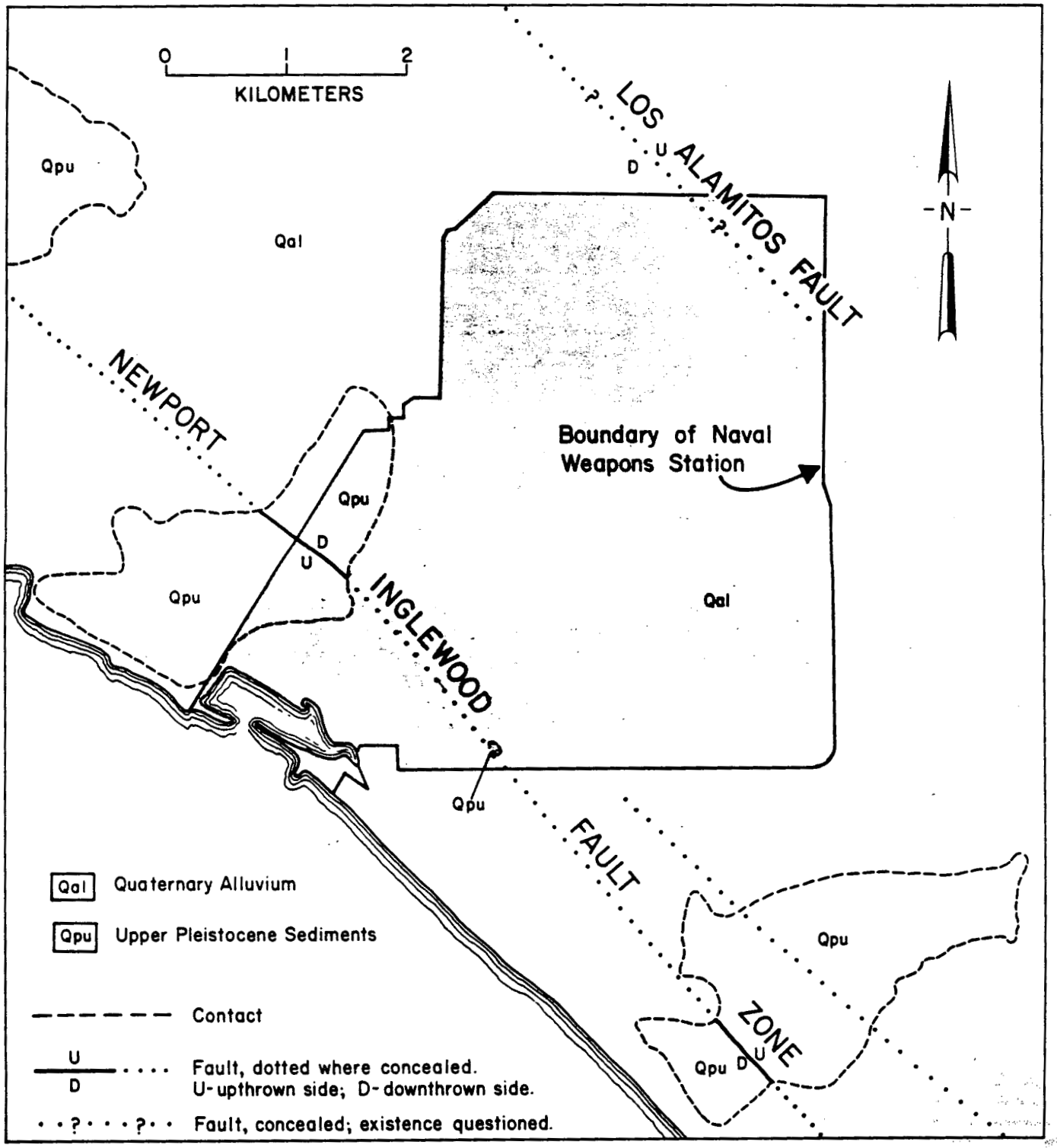

FIGURE 7 - Generalized geologic map of the area including the Seal Beach Naval Weapons Station. Geologic data were modified from Poland and others (1956).

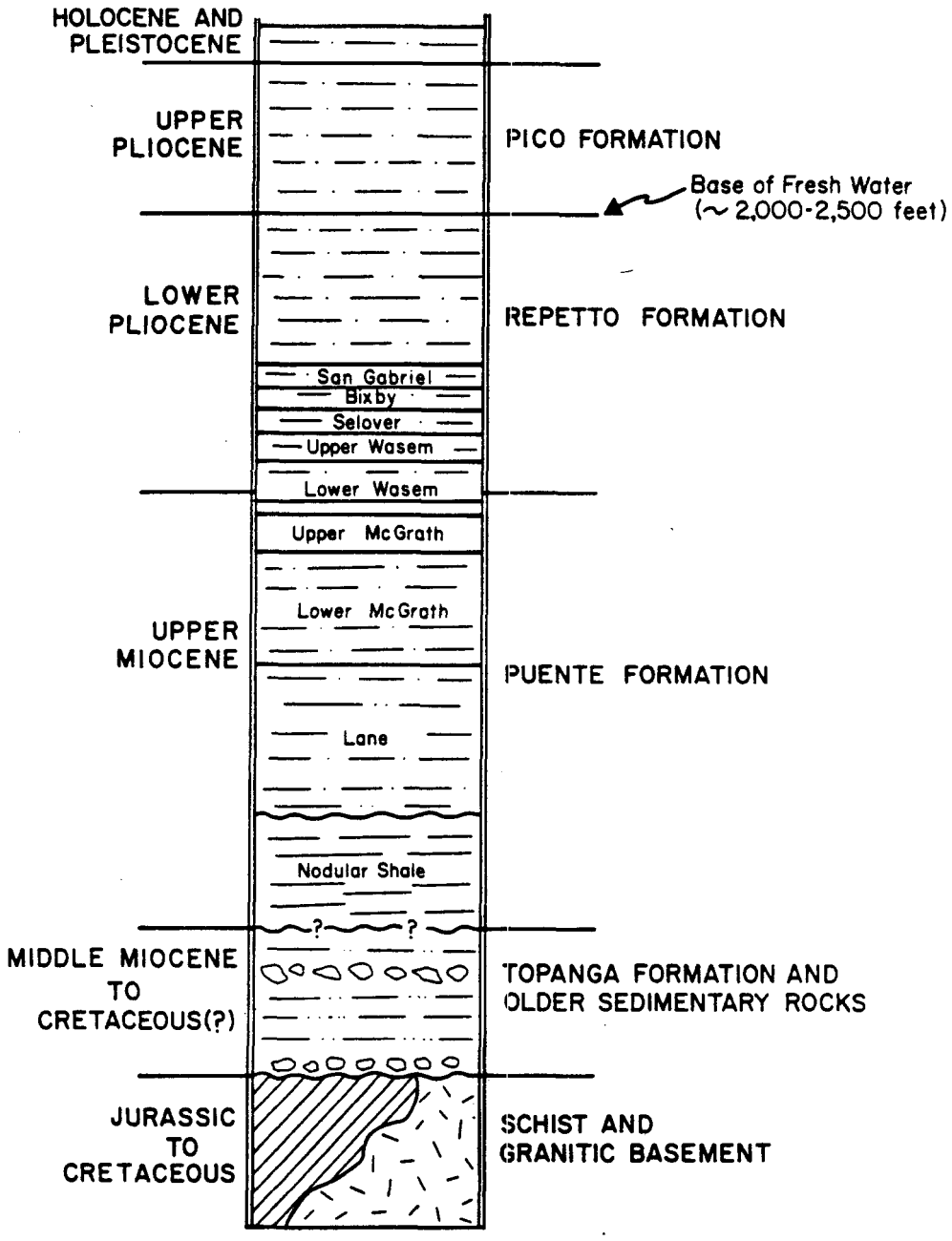

FIGURE 8 - Generalized stratigraphy beneath the Seal Beach Naval Weapons Station. Names within the column are production zones of the Seal Beach Oil Field. The stratigraphy was modified from Ingram (1966), Yerkes and others (1965), and the California Division of Oil and Gas (1974).

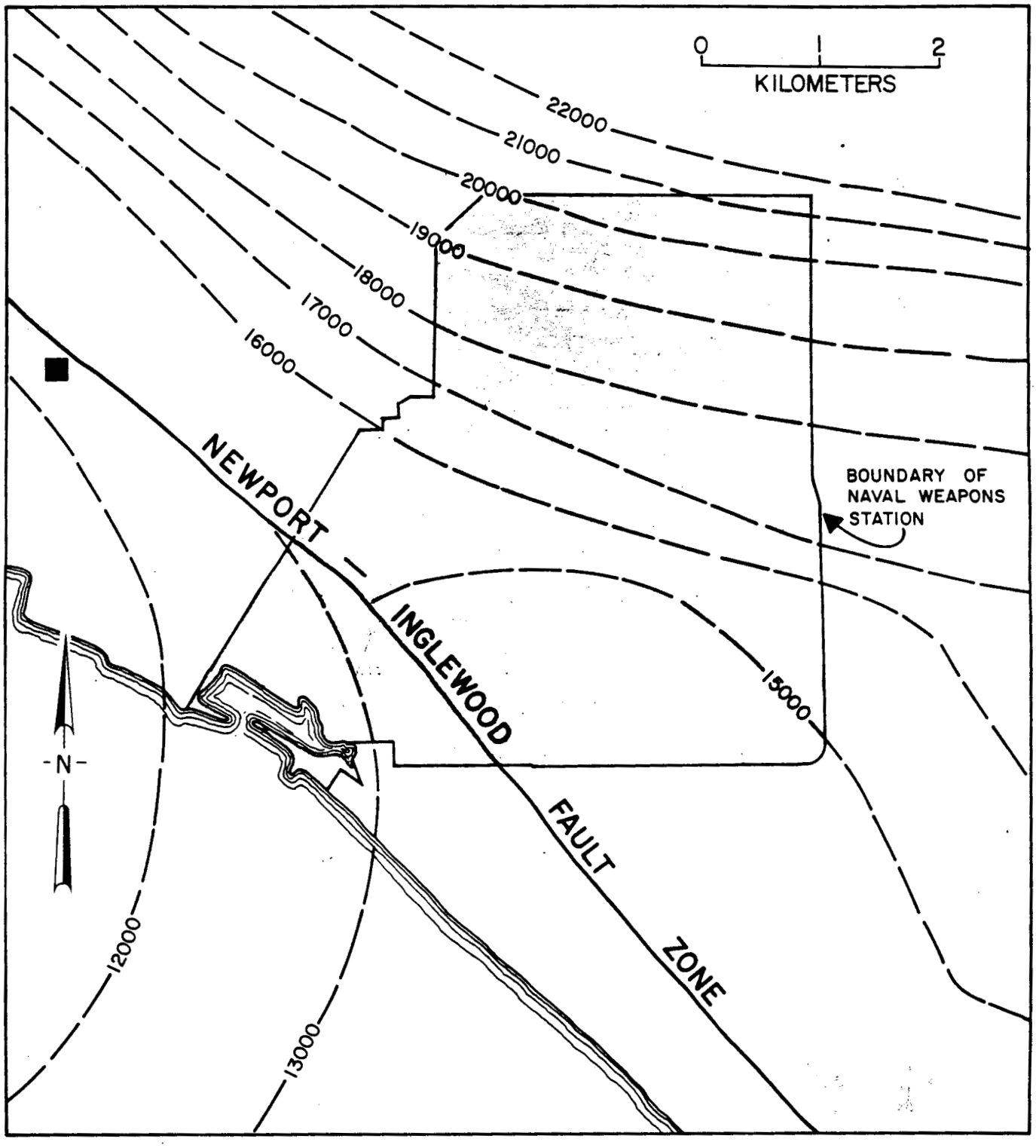

FIGURE 9 - Estimated depth to basement in the vicinity of the Seal Beach Naval Weapons Station. Contours are in feet below mean sea level and are modified from Yerkes and others (1965). The square is the location of Conoco's "Bixby A" No. 62 well. The naval weapons station is shaded.

The dominant structure under most of the weapons station is the north-northeast-dipping limb of the Downey syncline. Under the southwest part of the weapons station, the limb is interrupted by the steeply-dipping to vertical Newport-Inglewood fault zone (Figures 7, 9). Although movement along the zone is dominantly right-lateral, there appears to be some dip-slip motion in places. The zone comprises several splays in addition to some cross faults (Figure 7, Plate 2) and is associated with a regional anticline along its strike (Poland and others, 1956). Offshore of and beneath the southwesternmost part of the weapons station is the flank of the Torrance-Wilmington anticline. The anticline probably either flattens against or is truncated by the Newport-Inglewood fault zone.

Detailed structure beneath the weapons station is mostly unknown because of scarce subsurface exploration. Certainly the three regional structures have small aberrations, a few of which are known locally. Some of these local structures are described briefly here and amplified upon where appropriate in a subsequent discussion of geophysical investigations by the Division of Mines and Geology. The first two structures discussed are uplifts within the Newport-Inglewood fault zone, which is characterized by domes and anticlines along its entire length in the Los Angeles basin (Poland and others, 1956).

The Seal Beach Oil Field is astride the Newport-Inglewood fault zone and is developed within an elongated dome, termed the Seal Beach dome (Bowes, 1943). The dome is expressed in the surface topography by Landing Hill along the western boundary of the weapons station, and Los Alamitos Heights, farther northwest (Plate 2). It is cut longitudinally near its axis by the Newport-Inglewood fault zone.

Just southeast of the Seal Beach dome, beneath the weapons station, is a small anticline, which is also truncated by splays of the Newport-Inglewood fault zone. This structure produces oil as part of the Seal Beach Oil Field and is designated the "North Block-East Extension" (Ingrams, 1966). Contours on top of one of the producing zones are shown on Plate 2.

Beneath the northeast corner of the weapons station is a speculative structure termed the Los Alamitos fault (Figure 7). Its presence is tentatively based on logs of water wells, but it is not clear if the structure is a fault or fold (California Department of Water Resources, 1961, 1967).

Geophysical Investigations

The Division's geophysical investigations of the Seal Beach Naval Weapons Station consisted of analyses of published regional gravity and magnetic maps of the area and performance and interpretation of a detailed gravity survey of the weapons station and adjacent areas. The gravity survey was performed because it is generally the best technique for study of geologic structure. Details of the field procedure and data reduction for the gravity survey are described in Appendix A.

The weapons station and surrounding area are included in a regional gravity map (Beyer and Biehler, 1982) and an aeromagnetic map (Andreason and others, 1964). The aeromagnetic map was of limited usefulness because most of the magnetic anomalies appear to be caused by concentrations of oil wells and other cultural features. The Division did not make ground magnetic measurements in the area because the numerous cultural features interfere with

measurements of the magnetic field. The Division also did not conduct any electrical resistivity or similar surveys.

The purpose of the gravity survey was to improve our knowledge of known structures beneath the naval base and to discover structures that might be sites of fluids with temperatures higher than those of the surrounding subsurface. In this region, such sites could be open fault zones with access to deeply-circulating hot fluids or basement highs (typically domes or anticlines) that have relatively high geothermal gradients. Both the fault zones and basement highs can cause gravity anomalies.

Gravity Data and Its Interpretation:

Plate 3 is the Bouguer gravity map of the area contoured at an interval of one milligal (mgal). This map includes the gravity data obtained during this study as well as all of the gravity data available from published surveys in the area.

The most prominent feature of the gravity field shown on Plate 3 is a regional trend that dips steeply to the northeast. This trend is also shown on the gravity map of Beyer and Biehler (1982). In the map area, the gravity gradient is about 7 mgal per mile (4 mgal per km). This gradient probably reflects both the increasing thickness of the crustal rocks inland from the margin of the continent and the increasing depth of the basement rocks in the direction of the Downey syncline, whose axis is northeast of the map area.

Local anomalies are difficult to distinguish on Plate 3 because of the steep gravity gradient. For this reason, residual gravity maps were prepared for the area both by means of a polynomial trend-surface program and by manual construction of a smooth regional gravity surface from profiles that cross the area. Of several trend-surface residual maps prepared, the second order residual map was similar to the profile residual map and thus corroborated the latter. Plate 4 is the profile residual map of the Seal Beach area with a contour interval of 0.2 mgal.

The most prominent feature of the residual map is a northwest-trending positive anomaly that crosses the weapons station from the vicinity of Landing Hill on the northwest to near Hog Island and beyond on the southeast. The maximum amplitude of this anomaly is about 0.8 mgal, between Kitt Avenue and Bay (now Seal Beach) Boulevard. Northwest of Landing Hill, the amplitude increases slightly, but southeast of Kitt Avenue, it decreases. Near the southern boundary of the weapons station, and to the southeast, the amplitude of the anomaly again increases slightly (shown by +0.2 mgal contours).

The northwest-trending positive residual anomaly may represent the approximate location of the crest of the regional anticline associated with the Newport-Inglewood fault zone. Plate 4 shows that there is indeed a close association between the mapped fault traces and the residual anomaly.

The relatively large positive anomaly associated with Landing Hill may represent part of the Seal Beach dome. Southeast of this dome, there is probably a saddle in the regional anticline, which corresponds to the decrease in amplitude of the anomaly in this area (California Department of Water Resources, 1968, Plate 3A). The truncated anticline of the North Block-East

Extension does not appear as a closure of contours on Plate 4, perhaps because of a lack of detailed gravity data in this area. The slight increase in the amplitude near the southern boundary of the weapons station may represent the Sunset Beach dome associated with Sunset Beach Oil Field. The small positive anomaly in the extreme southeastern part of the map area, near the East Garden Grove Channel, probably represents the northwestern part of the Huntington Beach anticline (California Department of Water Resources, 1968, p. 34).

Figure 10 is a residual gravity profile (A-A') along a northeast-trending line (Kitt Avenue) in the western part of the weapons station. The positive anomaly over the Seal Beach dome has a maximum amplitude of about 0.8 mgal on the profile. Also shown on Figure 10 are the location of the Newport-Inglewood fault zone and two possible models of anticlines that could explain the gravity anomaly. These models illustrate the general shape of the geologic structure needed to explain the observed anomaly. In general, the anomaly could be caused by a relatively large structure close to the surface with a small positive density contrast, or by a smaller structure at depth with a higher density contrast. A combination of these and other models is also possible. There is insufficient information available, particularly in regard to density contrasts, to narrow the range of possible models.

Additional small residual gravity anomalies with amplitudes of a few tenths of a milligal include a small northeast-trending positive anomaly in the northwestern corner of the weapons station and a negative anomaly just east of the weapons station. The causes of these small anomalies are not known, but they are probably associated with variations in the sedimentary rocks. There is no apparent gravity expression of the northwest-trending Los Alamitos fault.

Geothermal Gradient

The geothermal gradient beneath the weapons station is less well-known than that at the Long Beach naval base. No temperature gradient survey is known to have been conducted in this area.

Figure 11 is an estimated curve of geothermal gradient for the southwest part of the weapons station in the vicinity of the Newport-Inglewood fault zone. Tied to a mean annual air temperature of 64°F, bottom-hole temperatures recorded in several dozen oil wells and exploratory holes were the main data used to construct the curve. The straight line of the gradient curve was drawn as an upper boundary to envelop all the reported temperatures. The reasoning for this is that, at depths greater than a few thousand feet, the temperatures measured in the holes are almost always lower than the true temperature at that depth; this discrepancy is because the holes are not allowed sufficient time to return to equilibrium temperature before the temperature is measured. Unpublished zone temperatures reported by the California Department of Conservation, Division of Oil and Gas for the Seal Beach Oil Field plot somewhat favorably about the curve, but, by themselves, were too scattered and inconsistently determined by different methods to use to construct the curve.

The computed gradient of about 2.2°F/100 feet (4.0°C/100 meters) is above "normal" but substantially less than that at the Long Beach naval base. It is probably lower because of the greater depth to basement here even though the

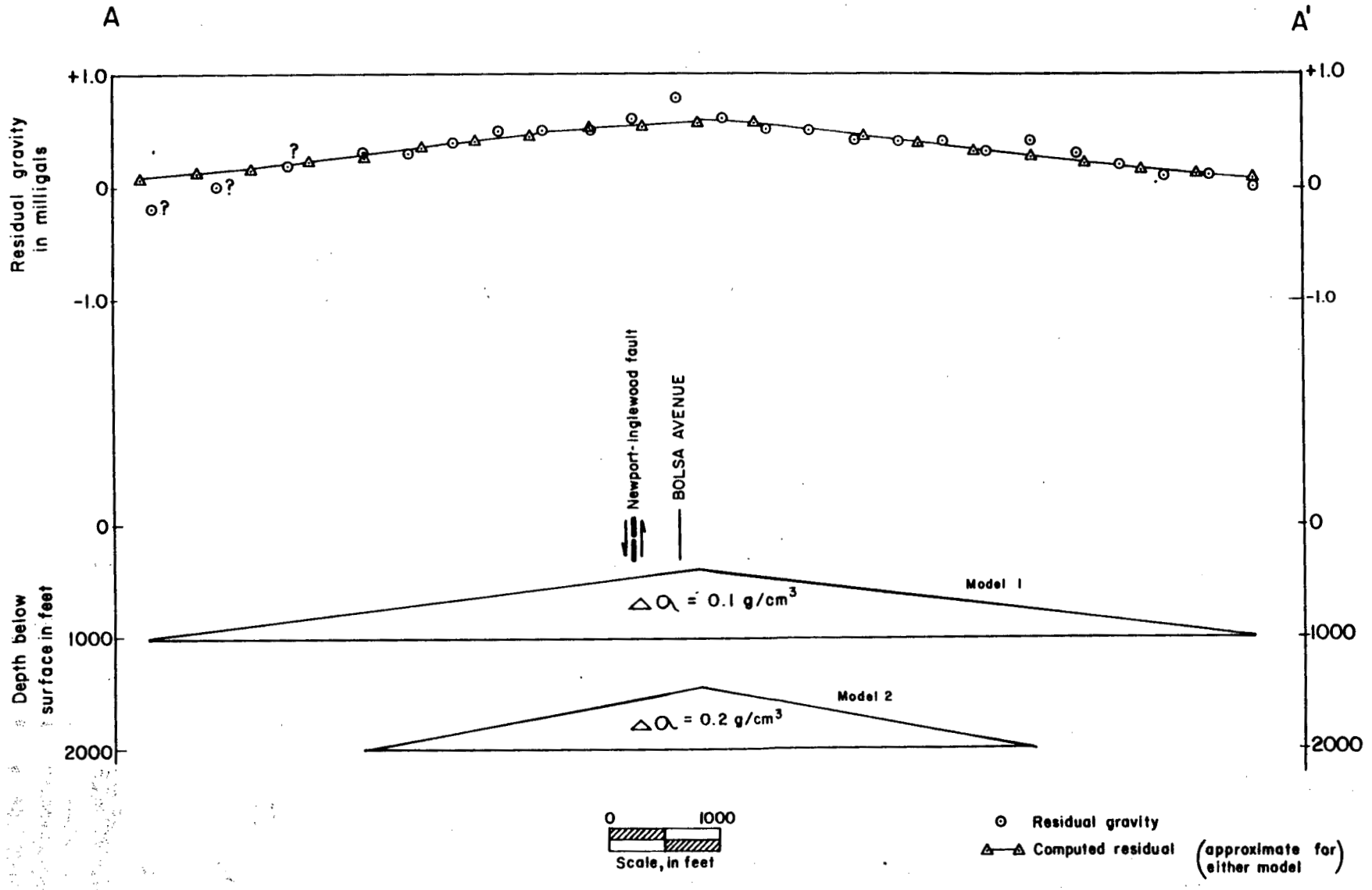

FIGURE 10 - Residual gravity profile A-A' and its interpretation. The profile is along Kitt Avenue, Seal Beach Naval Weapons Station.

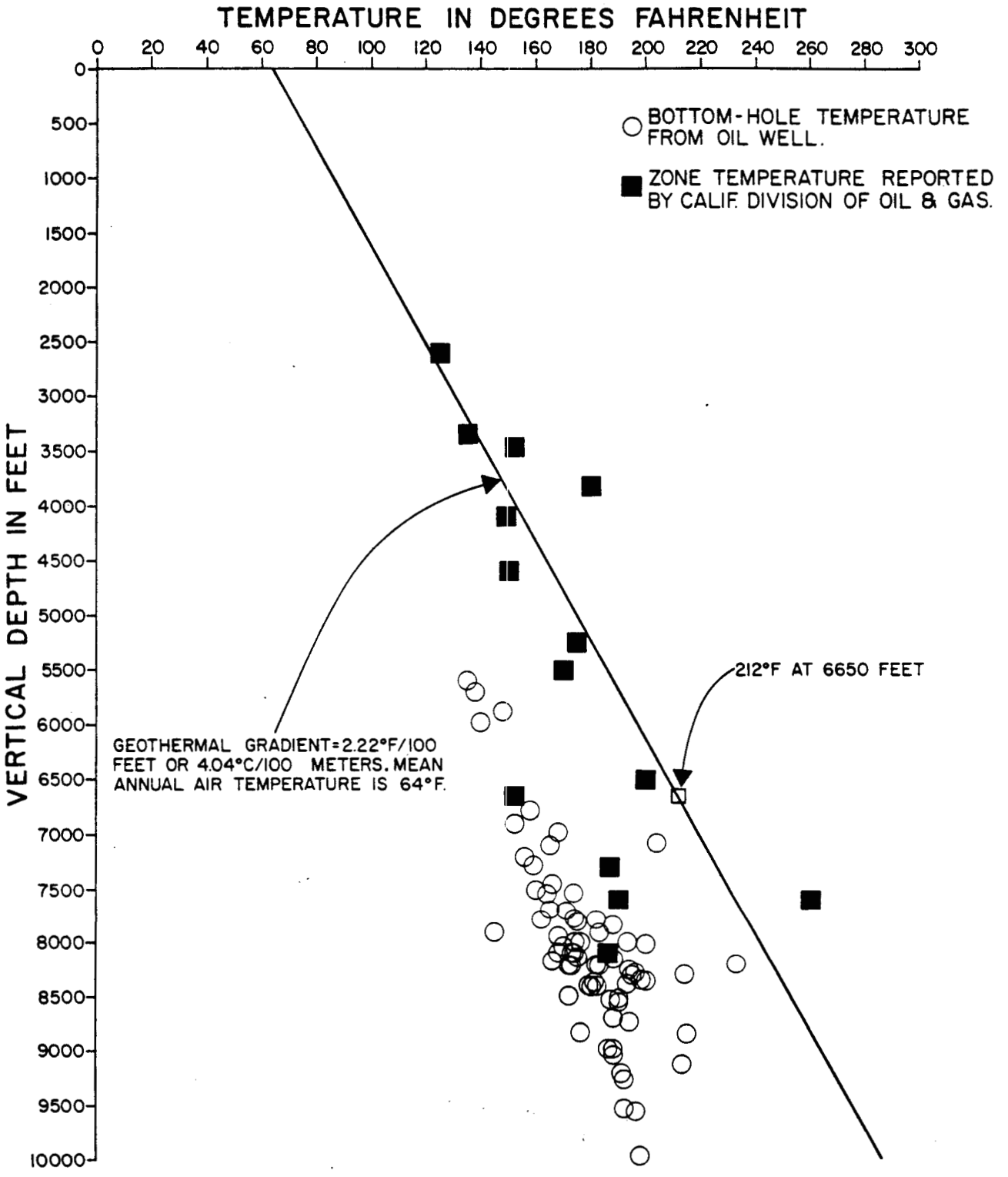

FIGURE 11 - Curve of estimated geothermal gradient beneath the southwest part of the Seal Beach Naval Weapons Station. The bottom-hole temperatures were obtained from unpublished records of the California Division of Oil and Gas.

thermal conductivities of the sedimentary rocks at the two bases are probably very similar. The effect of higher thermal conductivity of the basement on the geothermal gradient in the uppermost 10,000 feet of overlying sediments is diminished by the basement's great depth.

Using Figure 11, a temperature of 212°F (boiling point of water at sea level) is expected at a depth of 6,600-6,700 feet beneath the southwest part of the weapons station. Temperatures at the contact between the basement and overlying sedimentary rocks in this area are expected to exceed 300°F.

It is probable that the geothermal gradient progressively decreases away from this area toward the northeast edge of the naval base, which would result in successively lower temperatures for a given depth. This expected decrease is caused by the greater depth to basement as discussed earlier.

PHYSICAL AND CHEMICAL PROPERTIES OF THE ROCK UNITS

Shallow (Fresh-Water) Sediments

The weapons station is underlain by extensive fresh-water-bearing sediments including many large aquifers. Permeabilities of the aquifers generally decrease with depth and range from moderate to high. Moreland and Singer (1969) reported permeabilities as high as 2,500 gal per day/ft^2 (1.22×10^5 md) in Holocene sediments to 50-300 gal per day/ft^2 (2.44×10^3--14.65×10^3 md) in the Pico Formation.

The approximate base of fresh water is generally thought to be the contact of the Pico Formation with the Repetto Formation. This contact dips northeast as part of the Downey syncline; both formations thicken in this direction also. Depth to the contact probably ranges from about 1,700 feet in the southwest to over 3,000 feet beneath the north edge of the naval base.

Plate 2 displays contours on what is termed by the California Department of Water Resources (1967) the "effective base of the ground water reservoir." This base was defined as the lower limit above which at least 25 % of the vertical sedimentary section must contain permeable sediments capable of yielding 50 or more gal/minute of fresh water to wells. In general, this base is shallower than the lower contact of the Pico Formation.

Many water wells have been drilled on the weapons station over the years, but most are abandoned. Temperatures measured on several of these wells (Plate 2) do not indicate that any are anomalously thermal; well-head temperatures reported in records of the California Department of Water Resources (1980) ranged from 61° to 81°F. The wells measured ranged in depth from several hundred to over 1,000 feet, thus the temperatures do not represent an anomalously high gradient. Fresh water produced from these wells is typically sodium-calcium bicarbonate in chemical type and has total dissolved solids of about 250 ppm.

Based on the gradient of Figure 11, temperatures expected at the effective base of the ground water reservoir beneath the southwestern part of the weapons station are about 70°-80°F. Beneath the northeast part of the station, where the effective base is deepest (about 2,000 feet), temperatures may be approximately 100°-110°F.

Deep (Saline-Water) Sedimentary Rocks

Below the Pico Formation, the sedimentary rocks are mostly alternating marine sandstones and shales that contain saline waters. Oil is produced from zones in the lowest part of the Repetto Formation and in the Puente Formation (Figure 8). Most oil in the area of the weapons station is produced from the Wasem and McGrath zones at about 5,000-8,000 feet depth.

Average reservoir properties for the six main oil-producing zones of the Seal Beach Oil Field are presented in Table 5. Properties of the upper, non-producing part of the Repetto Formation are expected to be intermediate between those of the San Gabriel-Bixby zones and the lower part of the Pico Formation. Specific properties of the sedimentary rocks below the Lane zone are largely unknown.

In the oil-producing zones, sandstones and shales are present in approximately equal amounts. Original reservoir pressures increased with depth, but some have since been reduced because of oil production. Porosities decrease with depth as expected, yet permeabilities appear to be highest in the Selover and Upper Wasem zones; figures of over 1,200 md have been recorded in the latter. Nevertheless, permeabilities overall are low to moderate with the lowest in the McGrath and Lane zones. Sedimentary rocks below the latter two zones, especially the Middle Miocene to Cretaceous(?) rocks, are expected to have very low permeabilities because of consolidation by deep burial.

Total dissolved solids in water of the oil-producing zones range from about 20,000 to 31,000 ppm. The water in all zones is of the sodium chloride type with a slightly basic pH. Representative chemical analyses of the upper oil-producing zones are presented in Table 6.

Basement

The schistose and granitic rocks beneath the weapons station are probably an effective lower limit to the downward movement of ground water from overlying sedimentary formations. By nature, the basement is largely impermeable except perhaps where open fractures allow the deep penetration of ground water, which would heat the water and perhaps cause it to ascend along other open fractures. The volume of water present in such fractures is thought to be very small, however, compared to the volume of static water in the overlying sedimentary rocks.

OILFIELD OPERATIONS

Along the Newport-Inglewood fault zone on and adjacent to the Seal Beach Naval Weapons Station, there has been extensive development of oil fields, mainly during the early and middle part of this century (Figure 12). The main part of the Seal Beach Oil Field is northwest of the naval base with a small extension (North Block-East Extension) beneath the base. The much smaller Sunset Beach Oil Field in entirely off the weapons station to the southeast. A few exploratory holes were drilled on and adjacent to the naval base, outside of these fields (Plate 2), but no commercial quantities of oil were found to warrant development.

TABLE 5 - Physical and chemical properties of oil-producing zones in the Seal Beach Oil Field, as modified from unpublished records of the California Division of Oil and Gas.

ZONE	SHALLOWEST DEPTH TO TOP OF ZONE* (Feet)	AVERAGE TEMPERATURE (°F)	AVERAGE THICKNESS (Feet)	APPROXIMATE AVERAGE % SAND	INITIAL RESERVOIR PRESSURE (psi)	AVERAGE POROSITY (%)	AVERAGE PERMEABILITY (Md)	GRAVITY OF OIL (°API)	TDS IN WATER (ppm)
San Gabriel	5250	180	150	25-30	1850	34	?	20-27	31,600
Bixby	5400	184	200	70	1500-2000	28-37	200	21-25	31,000
Selover	5600	188	200	60	1600-2100	29-30	400 -600	24-28	26,600-27,400
Wasem	5800	193	700	60	2150-2400	24-28	125-1281	20-28	25,700-31,000
McGrath	6700	213	1500	40	2800-3215	21-24	50-150	25-34	20,000-26,000
Lane	8200	246	2000	50	3400-3760	16-18	20	28-32	31,000

* Beneath Seal Beach Naval Weapons Station only.

TABLE 6 - Chemistry of waters produced from selected zones in the Seal Beach Oil Field, as modified from unpublished records of the California Division of Oil and Gas.

ZONE	DATE	pH	Na	NH_4	Ca	Mg	Ba	Fe	SO_4	Cl	HCO_3	CO_3	B_4O_7	I	SiO_2	TDS
San Gabriel and Bixby	1/8/73	7.3	11,015	115	560	310	98	8	T	18,865	335	0	155	105	50	31,645
Selover	1977	7.9	9,110	105	330	100	48	26	22	14,000	1,755	0	240	40	50	26,600

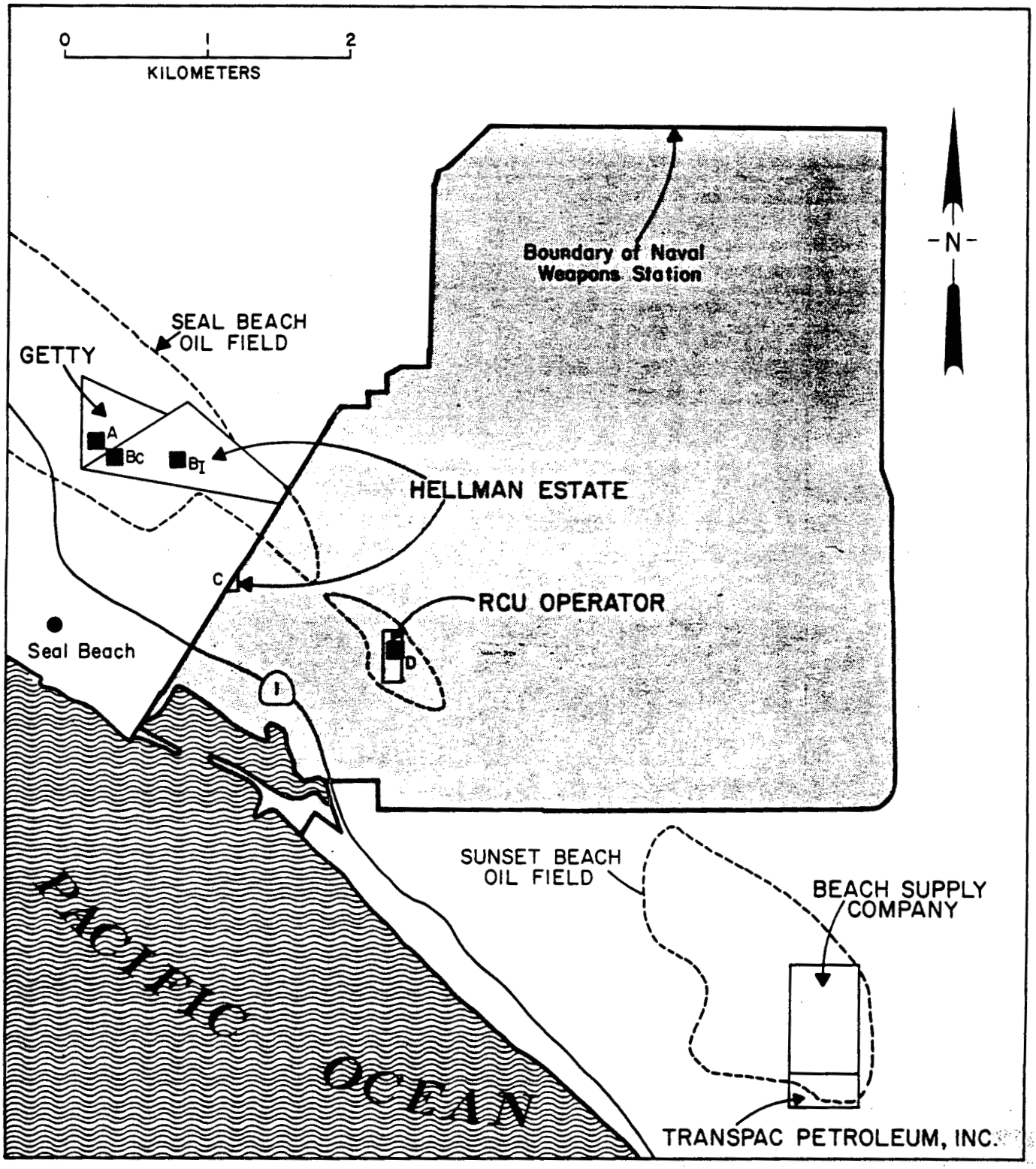

FIGURE 12 - Locations of oil field leases and central processing facilities on or adjacent to the Seal Beach Naval Weapons Station. Names of operators are shown on the leases. Facilities are as follows: A - "Bryant" lease collection and injection unit, B_C - "Hellman Estate" lease collection unit, B_I - "Hellman Estate" lease injection unit, C - "City of Seal Beach" lease storage tanks, D - "Alamitos" lease collection and injection unit. The naval weapons station is shaded.

As at Wilmington Oil Field, these two fields produce hot oil and water from depths of several thousand feet. The fluid is piped to central processing facilities in the Seal Beach Oil Field and to tanks at the individual well sites in the Sunset Beach Oil Field.

Production and Injection/Disposal Wells*

Within the wildlife refuge on the weapons station is RCU Operator's "Alamitos" lease, which is developed in the North Block-East Extension. A small cluster of about 2 dozen wells here are slant-drilled to the northwest and southeast into the McGrath and Wasem zones, which range from about 5,000 to 8,000 feet deep. Well-head temperatures, measured in November 1983, and rates of production for each of the production wells on the lease are presented in Table 7. The temperatures ranged from 84° to 163°F, while the rates of production ranged from 1 to 9 gal/minute. All wells, except numbers 14 and 18, produce from about 8,000 feet deep. A crude correlation between temperature and rate of production is also apparent in Table 7.

Only a small portion of the main Seal Beach Oil Field is present beneath the naval base. The only leases that produce from this portion are operated by Hellman Estate along the base's west boundary. One, the "Hellman Estate" lease, has several dozen production wells about 16 of which are slant-drilled under the base. Well-head temperatures of most of these 16 were measured in November 1983 and ranged from 81° to 127°F with all but four less than 100°F (Table 8). Rates of production ranged from less than 1 gal/minute to 4 gal/minute with most less than 2 gal/minute. The "City of Seal Beach" lease has two wells, which together produce only a few gallons of oil and water per minute at 73°-91°F (Table 8).

Temperatures of individual production wells on the "Bryant" lease, operated by Getty Oil Company farther northwest, were not investigated.

Southeast of the weapons station, the Sunset Beach Oil Field has only 5 active production wells. During 1983, one well produced about 10 gal/minute at possibly 140°F (because the temperature was not measured, it was estimated from both depth and rate of production). The other 4 wells produced a combined total of 3 gal/minute at temperatures probably less than 100°F.

All production wells discussed here are pumped with standard beam-rod pumping units. The percentage of water produced by individual wells ranged from as low as about 10% to over 90%. As evident from Tables 7 and 8, well-head temperatures would probably be higher than they are if rates of production were increased.

During 1983, the "Alamitos" lease had one disposal well operating at an average rate of 62 gal/minute at 113°F. The "Hellman Estate" lease had one injection well operating at 17 gal/minute and one disposal well at 30 gal/minute. Both were injecting water at 80°F or less. Getty's "Bryant" lease had 2 disposal wells, each disposing of about 14 gal/minute at approximately 70°F. The Sunset Beach Oil Field had neither injection nor disposal of water into the subsurface.

* An injection well injects fluids into an oil-producing zone for additional recovery, while a disposal well injects fluids into a non-producing zone.

TABLE 7 - Well-head temperatures and rates of production from oil wells on the "Alamitos" lease on the Seal Beach Naval Weapons Station. The temperatures were measured by the senior author in November 1983. The volumes are averages for the first 8 months of 1983, as reported in unpublished records of the California Division of Oil and Gas.

	WELL	TEMPERATURE (°F)	VOLUME (GAL/MIN)
Alamitos	5	163°	9
	3	144°	8
	16	144°	7
	18	140°	7 (Wasem)
	15	138°	8
	7	135°	5
	24	133°	5
	14	129°	5 (Wasem)
	2	120°	3
	10	120°	3
	26	108°	3
	19	106°	3
	8	104°	2
	13	97°	1
	4	95°	1
	6	95°	1
	20	91°	2
	21	84°	2

TABLE 8 - Well-head temperatures and rates of production from selected oil wells on the "Hellman Estate" and "City of Seal Beach" leases adjacent to the Seal Beach Naval Weapons Station. The temperatures were measured by the senior author in November 1983. The volumes are averages for the first 8 months of 1983, as reported in unpublished records of the California Division of Oil and Gas.

	WELL	TEMPERATURE (°F)	VOLUME (GAL/MIN)
Hellman Estate	34	127°	4
	33	113°	2
	38	106°	1
	51	100°	2
	26	99°	1
	35	99°	2
	57	97°	2
	58	97°	1
	39	95°	1
	19	93°	1
	31	91°	1
	55	88°	1
	27	86°	<1
	52	84°	1
	53	84°	1
	54	82°	<1
	56	81°	1
City of Seal Beach	1	91°	1
	2	73°	<1

Collection and Disposal of Fluids

Figure 12 and Plate 2 show the locations of the central facilities for the oilfield operations on and adjacent to the weapons station. Table 9 lists the volumes, temperatures, and amounts of thermal energy at the different facilities for each of the oil leases.

Of the four leases investigated in the Seal Beach Oil Field in 1983, the "Alamitos" lease had the highest temperatures and rates of production and disposal. Production from all wells (about 81 gal/minute at 122°F) was sent to the lease's central tank system where about 62 gal/minute of water was separated and piped at approximately 113°F to the lease's disposal well. The water was injected into the Repetto Formation at about 4,000-4,500 feet deep. Similarly, the "Hellman Estate" lease sent its production (about 60 gal/minute at 100°F) to a central facility where about 47 gal/minute of water was separated and piped to a separate injection facility. This water was treated and disposed of via a small water-flood project and a disposal project both at depths between 4,000 and 6,000 feet. The central facility at Getty's "Bryant" lease processed about 34 gal/minute, from which an average of 28 gal/minute of water at approximately ambient air temperature was sent to the lease's two disposal wells.

The closest tank facility at the Sunset Beach Oil field is over a kilometer from the southern boundary of the weapons station. Total waste water produced at the field's 5 wells in 1983 was only about 12 gal/minute, 10 of which were from Beach Supply Company's Sunset Heights Community No. 1 well. All water was disposed of via sewer systems.

Total thermal energy (Btu/hour) was estimated for oil and water processed at each lease based on equation 1 discussed earlier. Estimates ranged from a high of 2.35×10^6 Btu/hour at the "Alamitos" lease to less than 0.008×10^6 Btu/hour at Hellman Estate's "City of Seal Beach" lease. The second highest amount of energy was at the "Hellman Estate" lease with 1.08×10^6 Btu/hour, about 2 times less than that at the "Alamitos" lease.

DRILLING OF WELLS TO PRODUCE THERMAL WATER

In a presentation similar to that made earlier for the Long Beach naval base, we discuss here the possibility of drilling wells at the Seal Beach Naval Weapons Station to produce thermal water.

Temperature

To attain temperatures of atmospheric boiling of water (212°F) and above, especially for any production of electricity, it would be necessary to drill to a depth of at least about 6,500-7,000 feet in the southwest part of the weapons station. Temperatures sufficient for some nonelectrical applications (<212°F) could be attained at shallower depths less than about 6,500 feet. The temperature of water at the well-head, however, would be less than the rock formation's temperature because of the lag time of pumping and resultant cooling by conduction.

At first glance, the Newport-Inglewood fault zone might be a promising structure to drill because it may contain water with higher temperatures at given depths than would be predicted by the conduction-dominated geothermal gradient of Figure 11. This "excessive" temperature results when waters

TABLE 9 - Temperatures, volumes, and thermal energy of fluids processed in the central oil field facilities on and adjacent to the Seal Beach Naval Weapons Station. Figures for Getty's "Bryant" facility were for 1981, the rest for 1983. All temperatures and volumes were either reported by the listed operators or measured by the senior author. Types of disposal are: D - subsurface injection for disposal only (no secondary recovery), I - subsurface injection as part of a secondary-recovery (water-flood) program, S - disposal into a sewer system.

		(Oil & Water)				(Water)			
FIELD	OPERATOR AND LEASE	PRODUCTION (gal/min)	%WATER	TEMPERATURE (°F)	BTU/HOUR @ T_F=64°F	DISPOSAL (gal/min)	TYPE	TEMPERATURE (°F)	BTU/HOUR @ T_F=64°F
Seal Beach	RCU "Alamitos"	81	91%	122°	2.35×10^6	62	D	113°	1.52×10^6
	Hellman Estate "Hellman Estate"	60	71%	100°	1.08×10^6	47	I,D	~80°	0.38×10^6
	Hellman Estate "City of Seal Beach"	1	11%	86°	0.01×10^6	<1	D	~80°	$<0.008 \times 10^6$
	Getty "Bryant"	34	82%	74°	0.17×10^6	28	D	70°	0.08×10^6
Sunset Beach	Beach Supply Co. & Transpac Petroleum, Inc. (5 Wells)	1 well=10	97%	140°(?)	0.38×10^6	10	S	130°(?)	0.33×10^6
		4 wells=3	73%	90°(?)	0.04×10^6	2	S	80°(?)	0.02×10^6

heated at far greater depths in the earth's crust are able to ascend by convection along open fractures in the fault zone such as that intersected by the Seguro No. 1 well in Huntington Beach Oil Field. Unfortunately, except for Seguro No. 1, no oil wells or exploratory holes in the area have reportedly encountered any anomalously high-temperature water when drilled into the Newport-Inglewood fault zone.

Permeability

The low permeabilities in sedimentary rocks below a depth of about 6,000 feet would likely offset any advantages of higher temperatures at those depths. For an optimum combination of permeability and temperature, zones 5,000-6,000 feet deep are probably the best candidates for any proposed drilling. Here, permeabilities are over 1,000 md in some horizons and temperatures of 180°-200°F are expected, high enough for some nonelectric uses. A well in these horizons might be capable of producing on the order of 150 gal/minute (J. Richardson, personal communication, 1983). Above these depths, permeabilities improve in general, but temperatures correspondingly decline.

Recharge

Recharge of water-bearing zones by percolation of surface waters is presently effective only to depths of a few thousand feet beneath the weapons station. Below these depths, less is known of the hydrology of the sedimentary units, although it is probable that the saline-water-bearing zones become increasingly isolated hydrologically because of faults and impermeable shale layers. Consequently, if water is produced from these deep zones, they may not be sufficiently recharged to continue as reservoirs for production of thermal water. Also, subsidence may occur if large quantities of water are produced from these isolated zones. To prevent these problems, it would be necessary to inject chemically-similar waters into the zones.

Pumps, rather than natural flow, would be necessary in most cases to produce water from geothermal wells drilled on the naval base; natural flow might be sufficient for a short time but would eventually decline and then cease altogether. Natural water drive is reportedly strong in parts of the Bixby, Selover, and Upper Wasem zones (J. Richardson, personal communication, 1983), but is substantially lower in the McGrath zone because of previous oil production and, more importantly, low permeability. Pumping of large quantities of thermal water from any of these zones will eventually cause the reservoir energy to decline.

Effects on Production of Oil

As discussed previously, oil field operations at the weapons station are very limited; oil is produced from a very small subsurface area and thickness compared to the total size of the sedimentary section beneath the naval base. There are no major water-flood projects currently under the base; consequently, the extraction of thermal waters vertically and horizontally away from the production zones of the oil field would probably have little effect on these zones, assuming that protection against subsidence is undertaken. Currently, there is no known subsidence caused by production of oil from beneath the weapons station.

Drilling and Operation of Wells

Plate 2 shows the approximate areas of the weapons station where the U.S. Government has reserved subsurface mineral rights. The mineral rights of the remaining area of the naval base are reserved by Hellman Estate, RCU Operator, and Los Alamitos Land Company. Whether these subsurface rights include geothermal energy beneath the weapons station is not known.

At least one production well and one injection well would be necessary to produce and dispose of thermal waters. An injection well is needed not only because of recharge and possible subsidence but because governmental regulations state that large quantities of saline waste waters cannot be disposed of at the ground surface. Each well would probably cost at least a million dollars if drilled to depths of 5,000-6,000 feet. The poor chemical quality of the water would require special treatment to prevent scaling and corrosion in the wells; currently, oil wells at the "Alamitos" lease must be treated to prevent formation of calcium carbonate scale.

Completion, pumping, and maintenance of the wells, in addition to a program of monitoring the performance of both wells and reservoir, will add expenses. The monitoring is essential to sustain optimum production and life of the reservoir.

The drilling of geothermal wells on the weapons station might be bypassed if an existing oil well operated by Hellman Estate or RCU Operator were converted to production of thermal water, either by deepening of the well or alteration of its perforated intervals. A disadvantage is that the oil leases have relatively few wells on or very near the naval base, and none of the wells may currently be in a state at which abandonment as oil wells in imminent.

EXTRACTION OF HEAT FROM OILFIELD OPERATIONS

Compared to drilling geothermal wells on the weapons station, the use of existing oilfield operations in the Seal Beach Oil Field as a source of geothermal energy is less complicated and much less costly, although very limited in size. Operations at the Sunset Beach Oil Field are too small and too distant to be sources for the weapons station, therefore, they will not be discussed in this section.

Wells Versus Central Facilities as Sources of Heat

In 1983, fluids from production wells at the "Alamitos" lease had the highest temperatures (up to 163°F) in oil field operations on or adjacent to the naval base. On the other hand, the maximum rate of production from any well was less than 10 gal/minute. The few injection and disposal wells on the oil leases had rates of injection several times higher than this rate, but their temperatures were substantially lower, especially at the Hellman Estate and Getty leases.

The central facilities of the three main oil leases (Alamitos, Hellman Estate, and Bryant) process relatively small volumes of fluid at low temperatures. Of the three, the "Alamitos" facility had the highest temperature and volume in 1983 and is closest to the main buildings of the

weapons station (the nearest are less than 1 kilometer away). Facilities at the other two leases are about 1 to 1 1/2 kilometers away and have lower temperatures and volumes.

Effects of Extraction of Heat on Oilfield Operations

As at Wilmington Oil Field, the possible effects of extraction of heat on chemical equilibria and efficiency of oil recovery are important here.

Scaling of calcium carbonate and corrosion by high salinity are problems in operations at the Seal Beach Oil Field. Reduction of the produced water's temperature to ambient air temperature may or may not cause additional problems with scaling, although calcium carbonate should be more soluble with decreasing temperature. Perhaps the initial temperatures are low enough that further reduction may have little or no adverse effect on the chemical balance in the field operation.

Regarding retention of heat for increased recovery of oil, the natural viscosity of the oil produced here is relatively low, especially compared to that in the Tar and Ranger zones in the Wilmington Oil Field. Consequently, mobility of oil from the well through the processing system may not be significantly reduced by extraction of heat from the processing facility. Furthermore, most waste water from the oil field is injected as a means of disposal, not for recovery of more oil from the reservoir. As a result, there is no need to retain heat in the water as it is injected, unless the reduced temperature disrupts the chemical equilibrium of the zone into which the water is injected.

Transfer of Heat

Because of the poor chemical quality of the water produced from the oil leases, a heat exchanger and closed loop of secondary liquid would be necessary to transfer heat from the leases to intended uses on the naval base. The oil field operations are in undeveloped areas with sufficient space for such heat-exchange systems. The minimum length of pipe to carry the secondary liquid from the "Alamitos" lease to uses at existing facilities on the weapons station would be about a kilometer; uses closer than this are not presently possible because of the location of the wildlife refuge. Pipelines from the Hellman Estate and Getty facilities would be longer and are probably uneconomic because of the minimal amount of heat available. In any case, once the heated secondary liquid reaches its destination, its temperature could be boosted by use of other fuels.

The ownership, cost, and use of the heat in the oil field operations would have to be determined among all parties with legal rights in such a project. RCU Operator is tentatively interested in providing heat from its operations on the "Alamitos" lease for use on the naval base (Doc Crane, personal communication, 1983).

Longevity of Oilfield Operations

Most of the oil zones in this part of the Seal Beach Oil Field are still on primary production. Field operations are expected to continue beyond the year 2000 based on economic trends (J. Richardson, personal communication, 1983). When the field is depleted of oil, economics will determine whether or not the oil field operations can be converted to the production of thermal water.

CONCLUSIONS AND RECOMMENDATIONS

LONG BEACH NAVAL SHIPYARD AND NAVAL STATION

The geothermal conditions beneath the Long Beach naval base are characterized by slightly-above-average conductive heat flow from the crystalline basement high into the overlying blanket of sedimentary rocks, which have low thermal conductivity. The thickness of the sedimentary blanket ranges from about 5,900 feet beneath the northeast part of the base to possibly 8,500 feet beneath the southwest part. The lower two-thirds of the sedimentary rocks are part of the faulted, southwest-dipping flank of the Torrance-Wilmington anticline. There are no known convective thermal anomalies associated with the flank of the anticline.

The overall geothermal gradient in the sedimentary section is about 3.1°F/100 feet (5.6°C/100 meters), which is almost twice the earth's average. Extensive water-flooding associated with production of oil in the Tar, Ranger, and Upper Terminal zones has, however, probably lessened the gradient somewhat within these zones. The relatively high natural gradient in the deeper zones is probably caused by the shallowness of the highly conductive basement.

Temperatures of about 212°F are expected at depths of approximately 5,300 feet in this area. Beneath the northeast part of the naval base, temperatures at the basement-sediment contact may be about 230°F. Beneath the southwest part, where the contact is deepest, temperatures may be about 325°F.

Recharge of fresh water to the ground water system beneath the naval base is effective only to depths of a few thousand feet. Below these depths, the ground water is saline and is known to range up to about 34,000 ppm total dissolved solids with ions of sodium and chloride dominant. Permeabilities of the sedimentary rocks generally decrease with depth and range from moderate to high in fresh-water aquifers and low to moderate in the saline-water zones. The Schist Conglomerate zone locally may have moderate permeability, and wells drilled into these more-permeable sections may be capable of producing on the order of 100 gal/minute of water with temperatures of at least 230°F. The basement is impermeable except where open fractures may contain minor quantities of thermal water. A disadvantage of the saline-water zones is that, with depth, the zones likely become increasingly isolated hydrologically because of faulting, wedging out of sandstone layers, and the abundance of impermeable shale layers. Such isolation could create a non- or weakly-renewable source of water unless the system is artificially recharged by injection.

Drilling of geothermal wells on the naval base is likely not economical at this time for several reasons. Most importantly, the expenses of drilling and operating wells (both production and injection wells would be necessary) would probably be much greater than the economic value of the heat in the produced water. To reach temperatures for minimal production of electricity, for example, wells would need to be more than 6,000 feet deep. At these depths, permeabilities may be too low and pumping costs too high to produce the quantities of water to make a well economic. The poor chemical quality of the water adds cost to maintenance and requires that the water be disposed of via subsurface injection. Also, prevention of subsidence is necessary if wells are drilled to remove large amounts of water from beneath the naval base, not to mention possible adverse effects on the present production of oil. Regarding the production of oil, however, the conversion of a few oil wells at

the naval base to geothermal wells may be worthy of brief study as an alternative to drilling new wells.

Among oilfield operations on and adjacent to the naval base, a few of the central processing facilities of Long Beach Oil Development Company and Champlin Petroleum Company may be useful sources of thermal energy for the base, mainly because of the large quantities of water they process. If sufficient heat were extracted to reduce the water temperature at these facilities to 64°F, the water would contain about 10^7-10^8 Btu/hour of thermal energy. The "Island" injection plant has the best promise as a source of heat because of its volume (5,200 gal/minute at 112°F) and close location (about 200 meters north of the naval base). The "Pier E" injection plant is situated on the base, but contains about 5 times less energy than the "Island" plant. The "Island" collection plant contains about 1.5 times the energy of the "Island" injection plant, but is 3 times farther away from the base. The "XY" facility of LBOD is poorly situated because it is across a shipping channel. Although temperatures as high as 161°F were measured on some of them, extraction of heat at individual well-heads is not recommended mainly because of their low rates of production. An exception may be a well such as W-289, which produces about 100 gal/minute of 118°F-fluid.

The first step in the initiation of a project to use the central facilities as sources of thermal energy for use on the naval base is to determine the ownership of the rights to the heat in the water and then determine if the owner and the operator of the central facility (if different from the owner) are agreeable to the concept of such a project. If they are agreeable, an engineering study must be made to determine the use and cost of energy at the naval base and whether the extraction and transport of heat from a central facility will reduce those costs. Among many items to consider in the engineering study are the following: The project will require a heat-exchanger system because of the poor chemical quality of the water. Whether the extraction of heat from a central facility will disrupt the chemical equilibria in the oil field operation is not known but may be minor. Regarding efficiency of oil recovery, both LBOD and Champlin attempt to retain as much thermal energy as possible in their entire operations mainly because of the low gravity of the oil produced from the Tar and Ranger zones. Consequently, they have been reluctant to seriously support the idea of extraction of heat from their central facilities for outside applications. Both companies expect oil production at and near the naval base to continue into the 21st Century. Perhaps in that century, when the oil is depleted, it will be economical to convert some of the oil field operations to the production of thermal water for applications at the naval base.

SEAL BEACH NAVAL WEAPONS STATION

Like the Long Beach naval base, the Seal Beach Naval Weapons Station overlies a crystalline basement insulated by a large thickness of sedimentary rocks with low overall thermal conductivity. Depth to basement is estimated to range from about 12,000 feet beneath the southwest part of the base to 20,000-22,000 feet beneath the north part. Heating of the sedimentary rocks is by conductive heat-flow from the basement; there are no known convective thermal anomalies beneath the naval base, including the Newport-Inglewood fault zone.

The geothermal gradient in the sedimentary rocks beneath the southwest part of the weapons station is estimated at about 2.2°F/100 feet (4.0°C/100 meters), which is a little above the earth's average. It is lower than that at the Long Beach naval base most likely because of the much greater depth to basement here. Where applicable, a projection of the gradient indicates a temperature of 212°F at about 6,600-6,700 feet deep. At the basement-sedimentary rock contact, which is at depths of about 12,000 feet and greater, it indicates temperatures in excess of 300°F.

Fresh water is present to depths of approximately 1,700 feet beneath the southwest part of the weapons station and increases to over 3,000 feet beneath the north part. These depths also are the approximate lower limits of fresh-water recharge. Permeabilities of the fresh-water aquifers range from moderate to high and, in general, decrease with depth. Sedimentary rocks below the fresh-water zones contain saline waters with total dissolved solids known to range up to about 31,000 ppm; sodium and chloride are the dominant ions. Permeabilities in the saline-water-bearing sandstones are moderate at depths of about 4,000-6,000 feet but are very low at depths below about 8,000 feet because of compaction from deep burial. Wells drilled into the most permeable zones at about 5,000-6,000 feet depth may be capable of producing on the order of 150 gal/minute of water at about 180°-190°F. As at the Long Beach naval base, hydrologic isolation of saline-water-bearing zones is expected to increase with depth beneath the weapons station, especially within the Newport-Inglewood fault zone. This isolation is caused by faults, wedging out of sandstone layers, and impermeable shale layers and will result in the zones' inability to sustain production of large volumes of water because of the absence or paucity of natural recharge.

Regarding the location of promising geologic structures that might produce high-temperature waters, the gravity survey conducted by the Division of Mines and Geology corroborated the presence of some of the domes and anticlines along the Newport-Inglewood fault zone beneath and adjacent to the naval base. The survey also suggested that these domes and anticlines apparently align on top of a larger regional anticline associated with the fault zone, which is represented by a northwest-trending positive gravity anomaly. Otherwise, the survey did not reveal any strong anomalies that could represent any previously unknown large faults or structural highs (shallow basement) that might contain water with temperatures higher than those indicated by the estimated geothermal gradient.

For the generation of electricity, temperatures and permeabilities beneath the weapons station are not within current economic drilling limits. The optimum combination of temperature and permeability here may be about 5,000-6,000 feet, but this is probably too deep to justify the expenses of drilling and operating geothermal wells solely to produce thermal water for nonelectrical applications. Below these depths, permeabilities are probably too low to sustain large rates of production necessary to make such applications worthwhile. The fresh-water aquifers have high permeabilities at shallow depths (<1500 feet), but the temperatures are too low. From a different perspective, conversion of oil wells on the leases of either RCU Operator or Hellman Estate may warrant study as an alternative to drilling new geothermal wells.

Regarding oil field operations as sources of thermal energy for the weapons station, the central facility at RCU Operator's "Alamitos" lease has the highest temperatures and volumes of any operation. The maximum available

thermal energy of about 2.35 x 10^6 Btu/hour (81 gal/minute of 122°F-fluid) at this facility is somewhat small but may be a useful source of thermal energy for the naval base. The facilities at the leases of Hellman Estate and Getty are too distant and/or of insufficient thermal energy to be sources of heat for the base. The same is true of operations at the Sunset Beach Oil Field. Despite temperatures as high as 163°F, extraction of heat at individual well-heads is not recommended because individual oil wells at all leases produce too little fluid to be useful sources of heat.

During this study, RCU Operator stated interest in a project that would extract heat from the central facility at its "Alamitos" lease and transport it to uses on the weapons station. The ownership of this heat must be determined, however. Then an engineering study must be made to determine if the quantity of heat in the "Alamitos" facility is sufficient to justify construction of a system to extract and transport the heat. The loss of heat is not expected to harm oil field operations mainly because there is no secondary recovery project underway there that would benefit from retention of heat in the water as it is injected; because produced water is injected as a means of disposing of it, there is no economic reason to retain heat in the water. A heat exchanger will be required, however, because of the poor chemical quality of the water. Recovery of oil at the lease will likely continue past the year 2000.

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APPENDIX A

Gravity Survey at Seal Beach Naval Weapons Station

Geophysical surveys are an important part of a complete assessment of geothermal resources. Such geophysical surveys may include measurements of the gravity and magnetic fields, and the use of various electrical and electromagnetic techniques, as well as other methods.

The gravity survey conducted by the Division of Mines and Geology consisted of detailed gravity profiles on and adjacent to the weapons station and measurements at a number of gravity stations in the surrounding area. Gravity measurements were made with LaCoste and Romberg geodetic gravity meter G129. Elevations for stations on detailed lines were obtained by surveying. Elevations for stations not on surveyed lines were obtained from bench marks, from spot elevations from U.S. Geological Survey 7-1/2 minute topographic maps, or from interpolation of 5-foot contours at known locations. All gravity stations were referenced to a local base station near the weapons station, which was referenced, in turn, to the Division of Mines and Geology's gravity base station 320 at the Los Angeles International Airport (Chapman, 1966, p. 24).

Five lines of gravity stations, totalling approximately 10 miles (16.5 km) in length, were obtained at a station spacing of 400 feet (122m) on and adjacent to the weapons station. In addition, 84 gravity stations were established throughout the area for regional coverage. Nine of these stations were reoccupations of older gravity station sites (Ponce, 1982), but 29 of the older stations were used in the compilation without change.

All gravity data were reduced to complete Bouguer anomalies for a density of 2.67 g/cm^3 and referenced to the International Ellipsoid of 1930. Terrain corrections were made for each station out to a radius of 166.7 km (approximately 100 miles) by means of a U.S. Geological Survey computer program (Plouff, 1977).

Gravity "anomalies" are caused by lateral density changes in the subsurface rocks. Although no measurements of densities were available for the rocks in this area, it is probable that rocks of the basement complex are more dense than the overlying sediments and sedimentary rocks. Similarly, the densities of the sedimentary rocks probably increase, in general, with increasing depth of burial and age. Thus, local geologic structures that involve different rock units might cause local gravity anomalies.

CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

OFR 84-32 SAC
PLATE 1

MAP OF LONG BEACH NAVAL SHIPYARD AND NAVAL STATION, LOS ANGELES COUNTY, CALIFORNIA

by
Chris Higgins

1984

0 400 800 1200 1600 FEET
Scale = 1:4,800

EXPLANATION

— 2400 — Contour on top of Tar zone (depth in feet below mean sea level). After Long Beach Oil Development Company (unpublished field map, 1982).

—1600— Contour on base of fresh-water sediments (depth in feet below mean sea level). After California Department of Water Resources (1961).

Fault through top of Tar zone. After Long Beach Oil Development Company (unpublished field map, 1982).

B — Location of central facility (oil-field operation). See below for identification of each.

g — Site of numerous production wells and injection wells (see below for wells at each site).

W-86 — Production well (W-) or injection well (FW-) on LBOD's "U" lease. Locations from Long Beach Oil Development Company (unpublished field map, 1980). Wells underlined have measured well-head temperatures.

Central Facilities

A_C	Champlin "Island" collection.
A_T	Champlin "Island" water treatment plant.
A_I	Champlin "Island" injection plant.
B	LBOD "XY" collection and disposal.
C	LBOD "Pier E" injection plant.

Production Wells and Injection Wells

(Wells underlined have measured well-head temperatures.)

a	Production: W- Nos. 33, 36, 99, 276, 277. Injection: FS- Nos. 1, 6, 7, 12 and FHS- Nos. 9, 10.
b	Production: W- Nos. 31, 32, 35, 71, 95, 115, 258, 259, 266, 268, 274, 291. Injection: FW- Nos. 101, 233, 246, 255, 257, 271, 273 and FS- No. 8.
c	Production: W- Nos. 1, 29, 51, 109, 119, 121, 236, 237, 248, 252, 260, 290. Injection: FW- Nos. 54, 103, 108, 168, 238, 247, 254, 261, 278 and FS- Nos. 2, 4.
d	Production: W- Nos. 98, 289. Injection: FW- No. 230.
e	Production: W- No. 4, 213, 214, 215, 234. Injection: FW- No. 140.
f	Production: W- Nos. 217, 218, 219, 220, 221, 222, 263, 275. Injection : FW- No. 267.
g	Production: W- Nos. 169, 197, 198, 264, 265, 269, 279 and X- Nos. 49, 50.
h	Production: W- Nos. 126, 142, 280, 284. Injection: FW-Nos. 181, 187.
i	Production: W- Nos. 90, 302, 305, 306, 310, 312, 314, 319, 320, 322, 324, 328. Injection: FW- Nos. 303, 304, 309, 311, 313, 321, 323, 327 and FE- Nos. 307, 308, 315, 316, 330.
j	Production: W- Nos. 166, 183. Injection: FW- Nos. 161, 171, 287 and FE- No. 281.
k	Production: W- Nos. 402, 406, 408, 415, 417, 426. Injection: FW- Nos. 413, 428 and FE- Nos. 401, 403, 407, 410, 421, 424, 427, 429 and FHE- No. 423.



Base map compiled and enlarged from U.S.G.S. 7 1/2 minute Long Beach quadrangle.

MAP OF SEAL BEACH NAVAL WEAPONS STATION ORANGE COUNTY, CALIFORNIA

by
Chris Higgins

1984

1000 2000 3000 4000 5000 FEET

SCALE=1:12,000

EXPLANATION

- (A) — Location of central facility (oil field operation)
- W2 — Location of oil wells and injection/disposal wells.
- 10 — Location of water well.
- g — Location of exploratory hole (abandoned).
- 800 — Contour on "effective base of ground water reservoir" (depth in feet below mean sea level). After Calif. Dept. of Water Resources (1967).
- Boundary of weapons station.
- Boundary of subsurface mineral rights reserved by U.S. government.
- Boundary of national wildlife refuge.
- Boundary of Alamitos lease (RCU Operator). Remainder of private subsurface mineral rights beneath base reserved by Hellman Estate and Los Alamitos Land Company.
- U/D — Fault through top of Lower McGrath zone. U-Relative upthrown side, D-Relative downthrown side. After Ingram (1966).
- 7350 — Contour on top of Lower McGrath zone. Depth in feet below mean sea level. After Ingram (1966).

FACILITIES AND WELLS

Central Facilities:

A	Getty "Bryant" lease - collection and disposal tanks
B_C	Hellman Estate "Hellman Estate" lease - collection tanks
B_I	Hellman Estate "Hellman Estate" lease - disposal tanks
C	Hellman Estate "City of Seal Beach" lease - collection and disposal tanks
D	RCU Operator "Alamitos" lease - collection and disposal tanks

Oil and Injection/Disposal Wells:

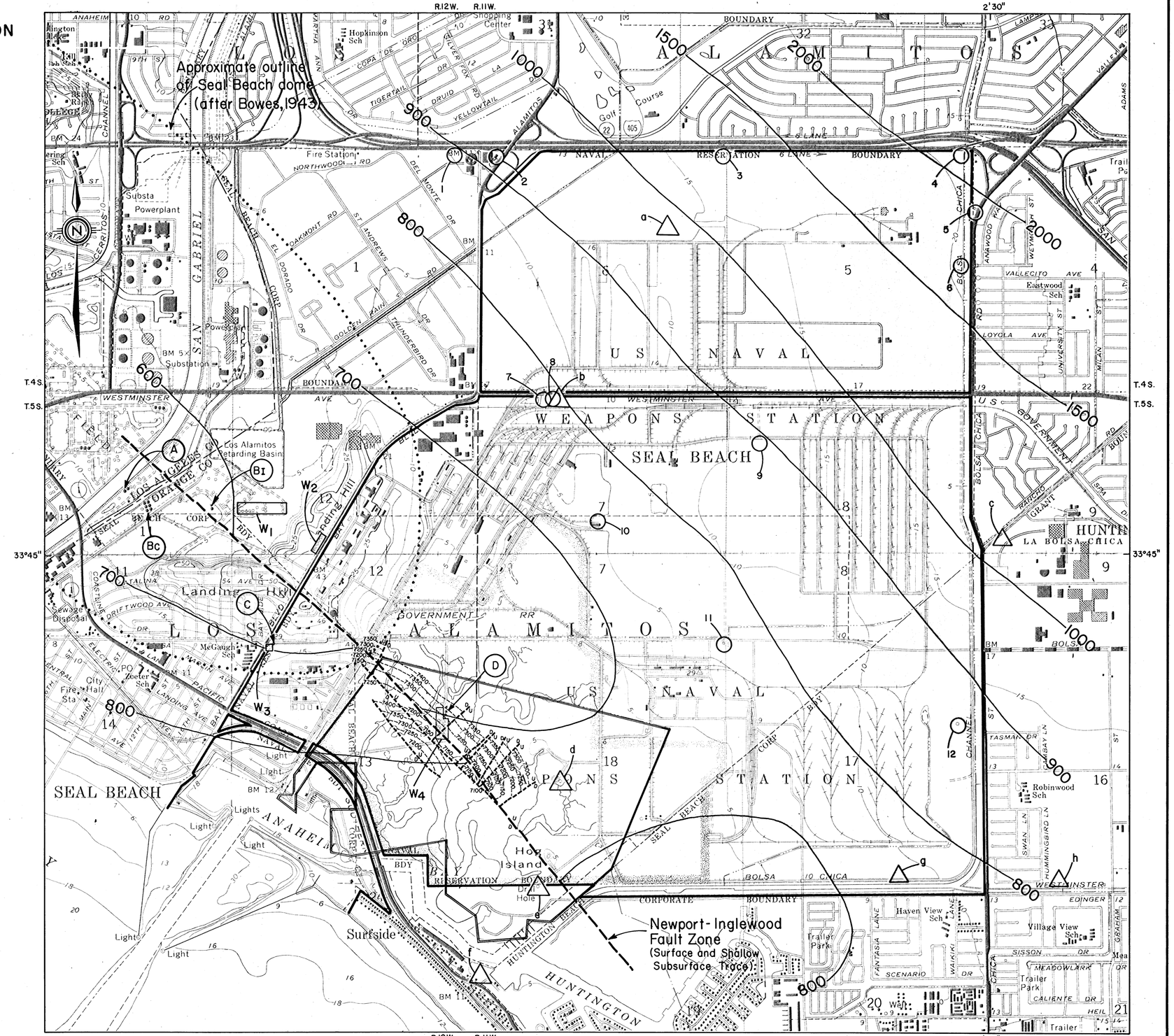
W_1	Hellman Estate Nos. 19,26,27,31,33,34,35,38, 39 (Production) Hellman Estate Nos. 40, 46 (Injection, disposal)
W_2	Hellman Estate Nos. 51-58 (Production)
W_3	City of Seal Beach Nos. 1,2 (Production)
W_4	Alamitos Nos. 1-10, 13-26 (Production) Alamitos Nos. 11,12 (Disposal)

Water wells:

	Operator	"Name"	State (Well No.)	Depth	Temperature (°F)
1	City of Seal Beach	"Leisure World"	(5S/12W-1A3),	840'	77
2	City of Seal Beach	"Beverly Manor"	(5S/11W-6D4),	920'	77
3	Agricultural tenant	---	---	?	?
4	Agricultural tenant	---	---	?	?
5	City of Seal Beach	"Bolsa Chica"	(5S/11W-4?),	1050'	68
6	Agricultural tenant	---	---	550'	?
7	City of Seal Beach	---	(5S/11W-7C2),	674',	61-81
8	Dept. of Navy	"No. 6"	(5S/11W-7C1),	802',	61-81
9	Agricultural tenant	---	---	415',	?
10	Dept. of Navy	"No. 2"	(5S/11W-7L1?),	796',	69
11	Dept. of Navy	"No. 3"	(5S/11W-18A1?),	680',	78
12	Agricultural tenant	---	---	?	?

Exploratory Holes:

	Name	Year Aband.	Total Depth	BHT (°F) @ Hole Depth
a	SBJA 1	1941	8014'	200° @ 8014'
b	Hellman 1	1963	10489'	190° @ 8550' 192° @ 9560' 230° @ 10480'
c	Hellman Estates 1	1970	12455'	166° @ 8168' 213° @ 12450'
d	Alamitos Land and Water Co. 1	1930	4573'	---
e	Alamitos 1	1934	5823'	---
f	Arvanitis 1	1955	8981'	174° @ 8006' 188° @ 8973'
g	Westminster Gun Club 1	1936	5345'	---
h	Anaheim Sugar 1	1953	8029'	138° @ 5695' 168° @ 7938' 170° @ 8032'


R.12W.
R.11W.
2'30"
33°45"
T.4S.
T.5S.
Approximate outline of Seal Beach dome (after Bowes, 1943)
Newport-Inglewood Fault Zone (Surface and Shallow Subsurface Trace)
SEAL BEACH
NAVAL WEAPONS STATION SEAL BEACH
U S NAVAL WEAPONS STATION SEAL BEACH
LOS ALAMITOS
U S NAVAL RESERVATION BOUNDARY
Los Alamitos Retarding Basin
Landing Hill
Hop Island
Surfside
HUNTINGTON BEACH
LA BOLSA CHICA
Golf Course
Fire Station
Substa
Powerplant
Substation
Sewage Disposal
City Hall
Fire Sta
Eastwood Sch
Robinwood Sch
Haven View Sch
Village View Sch
Trailer Park
Meadowlark Trailer Park
Los Alamitos Retarding Basin
Hop Island
Lights
Light
BM 12
BM 5
Hole
Wash
Trail
Pond
Levee
Channel
Boundary
Corporate Boundary
Bridge
Pipeline
Railroad
Government RR
Electric RR
Pacific Electric RR
Naval Railroad
Los Angeles Co.
Orange Co.
Seal Beach Blvd.
Westminster Ave.
Anaheim
Pacific Coast Hwy
Bolsa Chica Rd
Valley View
Del Monte Dr
Golden Rain Rd
Northwood Rd
Oakmont Rd
Eldorado Dr
Alamitos
Yellowtail
Druid
Tigertail
Copa De Oro
Silver Fox Rd
Driftwood Ave
Talbert Ave
Talbert Channel
Bolsa Chica Channel
Anaheim Channel
Los Alamitos Channel
San Gabriel River
Coast Hwy
Seal Beach Blvd
Bolsa Chica Rd
Valley View
Loyola Ave
Vallecito Ave
Edinger
Westminster
Tasman Dr
Sunray Ln
Swan Ln
Hummingbird Ln
Fantasia Lane
Waikiki Lane
Scenario Dr
Sisson Dr
Meadowlark Dr
Caliente Dr
Heil
Graham
Adams
Anaheim
Ranchito
Los Alamitos
Rancho Grant
Bolsa Chica
Milan
University
Chica
Grove
Rancho
Bolsa
Sam
Sam
Sam

9

CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

QFR 84-32 SAC
PLATE 3

BOUGUER GRAVITY MAP
SEAL BEACH AREA
ORANGE AND LOS ANGELES COUNTIES, CALIFORNIA

by
Rodger Chapman
1984

SCALE 1:24000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 5 0 1 KILOMETER

Contour Interval: 2 milligals
Reduction Density: 2.67 g/cm^3

EXPLANATION

- Gravity Measurement
- Fault
- Concealed Fault
- Boundary of Seal Beach Naval Weapons Station

Location of Faults from:

Poland, J.F., Piper, A.M., and others, 1956, Ground Water Geology of the Coastal Zone, Long Beach-Santa Ana Area, California: U.S. Geological Survey Water Supply Paper 1109, 162 p.

California Department of Water Resources, 1968, Seawater Intrusion: Bolsa-Sunset Area, Orange County: California Department of Water Resources Bulletin 63-2, 167 p.

Base map compiled from U.S.G.S. 7 1/2 minute Los Alamitos quadrangle and 7 1/2 minute Seal Beach quadrangle.

DOE/SF/11720-T1

CALIFORNIA DIVISION OF MINES AND GEOLOGY
JAMES F. DAVIS, STATE GEOLOGIST

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

OFR 84-32 SAC
PLATE 4

RESIDUAL GRAVITY MAP
SEAL BEACH AREA
ORANGE AND LOS ANGELES COUNTIES, CALIFORNIA

by
Rodger Chapman
1984

SCALE 1:24000

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 5 0 1 KILOMETER

Contour Interval: 0.2 milligals

EXPLANATION

- Gravity Measurement
- Fault
- Concealed Fault
- Boundary of Seal Beach Naval Weapons Station

Location of Faults from:
(See Bouguer Gravity Map)

Section A-A', (See Figure 10)

Base map compiled from U.S.G.S. 7 1/2 minute Los Alamitos quadrangle and 7 1/2 minute Seal Beach quadrangle.

Comment No. P90

March 27, 2025
Eric Crane
eric.m.crane@gmail.com

Response to Comment No. P90-1

The commenter provides information related to a new technology involving the production of gaseous hydrogen and graphene through a process called pyrolysis, and claims this technology could advance the timeline for hydrogen production. The commenter discusses the process and science of graphene production and its uses. The commenter also presents information for another type of energy production process that generates electricity from geothermal heat in oil wells and refers to an attached report dated 1984 and prepared by California Department of Conservation Division of Mines and Geology (now referred to as California Geologic Energy Management Division). The commenter requests consideration of these technologies as means to eliminate CO_2 emissions ahead of schedule. The proposed project includes a CCGS that has the capability to combust hydrogen supplied by others, but the project itself would not be involved with the production of hydrogen. As this comment does not specifically address the adequacy of the Draft EIR, no further response to this comment is required. Notwithstanding, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P90-2

The commenter expresses concern with the cost and water demand associated with hydrogen infrastructure. With regard to costs, the commenter is referred to Chapter 2, Introduction, of the Draft EIR, which states that the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

With regard to water demand, the commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As such, the proposed project would not result in an onsite water demand to produce hydrogen.

Regarding potable water use, the commenter is referred to page 53 of the Initial Study prepared for the project (Appendix A of the Draft EIR). As described therein, potable water is currently used at Scattergood and would continue to be used after implementation of the proposed project for various purposes related to the operation of the generation units. However, the use of potable water for the proposed project would be offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. To further reduce the use of potable water, it is currently planned that the use of recycled water would be expanded under the proposed project through the reuse of industrial process water and from external sources. In addition, because the proposed project CCGS and all generation units at Scattergood are anticipated to only be operated infrequently compared to existing operations, the consumption of water would be reduced proportionally on an annual basis.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P90-3

The commenter provides additional information regarding the benefits of using graphene in comparison to green hydrogen, stating it would be more economical and efficient with less NO_x emissions. The commenter also elaborates on the Levidian pyrolysis technology, and states it could provide electricity in water-stressed areas. As this comment does not specifically address the adequacy of the Draft EIR, no further response to this comment is required. Notwithstanding, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P90-4

This attachment is associated with Comment No. P90-1 and includes a report titled *Geothermal Energy at Long Beach Naval Shipyard and Naval Station and at Seal Beach Naval Weapons Station, California*, dated 1984 and prepared by the California Department of Conservation Division of Mines and Geology (now known as California Geologic Energy Management Division). The commenter is referred to **Response to Comment No. P90-1** above. No further response is required. Notwithstanding, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P91

Martin, Jazmin

From: Gregg Aniolek <ncwpdrgregg@gmail.com>
Sent: Sunday, April 6, 2025 11:14 AM
To: Scattergood_Modernization_Project
Cc: paula Gerez
Subject: [EXTERNAL] Comment letter from Westchester/Playa Neighborhood Council

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Please see attached comment letter on the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Draft Environmental Impact Report (DEIR). This letter was approved by the Westchester/Playa Neighborhood Council on 4-1-2025.

Coincidentally, Members of LADWP were at the council meeting on 4-1-25. Based on new information I learned from their presentation and answers to my questions, I will be submitting my own personal comments in a separate email today.
Thank you

P91-1

Gregg Aniolek
Residential District Director #2
Westchester/Playa Neighborhood Council.

To: Los Angeles Department of Water and Power (LADWP)

Jazmin Martin, Environmental Specialist

From: Neighborhood council of Westchester/Playa

Re: Scattergood Modernization Project

Date 04/01/2025

Dear Jazmin Martin & others @ LADWP,

The Neighborhood Council of Westchester/Playa have the following comments regarding the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Draft Environmental Impact Report (DEIR).

First and foremost, we must point out that the California Environmental Quality Act (CEQA) SCH Number 2023050366, states the following in the third paragraph of the description.

P91-2

"The necessary infrastructure for the production, delivery, and storage of green hydrogen needed to support the Proposed Project currently does not exist. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the Proposed Project dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of the green hydrogen system are currently unknown. Therefore, this DEIR does not address the supply of green hydrogen to Scattergood Generating Station, which will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available. LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the Proposed Project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the impacts related to the combustion of such a fuel mixture are analyzed in this DEIR."

P91-2 cont'd

Production, storage and supply of hydrogen should be determined first and foremost since this is literally the critical element in this entire proposed modernization project. Putting forth any proposal of new power generation system(s) first is putting the cart way before the horse! We should first determine the environmental impacts of hydrogen production that may cancel out any benefit of using it in a new generating station. If significantly more energy is needed to manufacture hydrogen and this energy comes from power sources generated by carbon fuels, what is the benefit of using the proposed natural gas (70%)/ hydrogen (30%) mix for this new generating station?

Neighborhood Council of Westchester/Playa

Comment No. P91

April 1, 2025
Gregg Aniolek on behalf of Westchester Playa del Rey Neighborhood Council
ncwpdrgregg@gmail.com

Response to Comment No. P91-1

The commenter refers to an attached comment letter submitted on behalf of the Westchester/Playa Neighborhood Council and states that they will be submitting their own personal comments separately. This comment does not address the adequacy of the Draft EIR. Accordingly, the comment is acknowledged for the record, and no further response is required.

Response to Comment No. P91-2

The commenter refers to the text in Section 3.2.2, Green Hydrogen, of the Draft EIR, which in summary, states that the Draft EIR does not address the supply of green hydrogen to Scattergood and that this would be analyzed in a separate environmental review as the necessary infrastructure for green hydrogen does not currently exist. The commenter states that the production, storage, and supply of hydrogen and its impacts should be addressed before implementation of the proposed project. The commenter is referred to the commenter is referred to **Topical Response No. 2 – Hydrogen**. As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. The green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P92

Martin, Jazmin

From: Gregg Aniolek <ncwpdrgregg@gmail.com>
Sent: Sunday, April 6, 2025 12:05 PM
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Comments on Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Draft Environmental Impact Report (DEIR).

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hello,

I am providing feedback/comments on the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization project. See my topics below:

Modernization of obsolete power generating system

I was informed that the Scattergood power generating system was built back in the 1950's. Clearly this is an obsolete system that needs to be updated to a more reliable and efficient system. In no way am I opposed to this modernization. Furthermore this power generating plant is critical to city operations including, but not limited to, LAX and the Hyperion wastewater treatment plant. These two critically important pieces of infrastructure must have a reliable power source. Reliability should be considered first and foremost when building a new system.

Hydrogen Ready

Speakers from LADWP at the Westchester/Playa Neighborhood Council meeting on 4-1-25, clarified some important information from myself during this meeting. I was under the impression that the system will use 30% hydrogen and 70% natural gas (methane) as the fuel source from the beginning and this is without knowing where the hydrogen will yet come from.

During our discussions I was told that this system will be "hydrogen ready" and not necessarily be using a hydrogen as a fuel to begin with if it is not available and manufactured by renewable sources. I had initial concerns that the city/LADWP would be spending more energy making hydrogen and cancel out any environmental benefit. P92-1

However I was told the new Scattergood Generating system will be capable of utilizing a wide range of hydrogen/methane fuel mixes and the system will be capable of using 100% methane until a renewable source of hydrogen can be generated. Therefore I am in favor of this plan in integrate hydrogen manufactured from renewable sources when it becomes available.

Batteries

There has been talk about utilizing batteries as a source of stored power during high demand times. Reports, including one from NREL, state that there is not enough space to store batteries in basin at this location and therefore is not feasible. I would further add that batteries contain a significant amount of toxic metals and are a liability if a major fire occurs, similar to what happened in the Pacific Palisades. EV power vehicles have left a toxic mess in the Palisades that now needs to be cleaned up carefully. Therefore I only suggest having very small battery stations as a backup source if needed.

Solid Oxide Fuel cells (SOFC's)

I am in favor of further investigation into SOFC's since they are a non-combustion power source, have some of the highest efficiencies and lowest emissions. I understand that SOFC's still need more development and are can not yet generate enough power to supply to the city grid. However they would be useful as a means to decentralize the power grid by providing local power sources for large scale businesses such as LAX, Hyperion waste waste treatment facility, SoFi stadium and Loyola Marymount University. Please keep these SOFC's as a consideration form making the power grid more reliable.

Updated Transmission

NREL has stated that updating the power transmission system would take too long to achieve in the time span we currently have. However, upgrades should be performed on a continuous process to ensure reliability of power to LA.

Political Awareness

Let's face it, former Mayor Eric Garcetti, was looking for "political attention" by saying they will abandon the traditional natural gas burning power plants and use hydrogen. He is yet another politician looking to get attention by saying we have to "go green". Unfortunately there is not enough sunshine and wind to power a city the size of Los Angeles. We must first consider reliable sources of power and continuously integrate renewable sources as they become practical. These politicians who may know law, government policy, policies, etc, are not engineers and need to be put in their place when it comes to ensuring a reliable power source for the city.

P92-1 cont'd

That is all from myself. Feel free to contact me if you would like any further input or would like to tell me of any new information.
Thank you

Gregg Aniolek
Residential District Director #2
Westchester/Playa Neighborhood Council
BS & MS, Chemical Engineering

Comment No. P92

April 6, 2025
Gregg Aniolek
ncwpdrgregg@gmail.com

Response to Comment No. P92-1

The commenter supports the modernization of the aging Scattergood units and acknowledges that the proposed project will be capable of using 100 percent natural gas (methane) until renewably produced hydrogen becomes available. In addition, the commenter acknowledges that batteries are not a feasible alternative to the proposed project, supports the use of small battery stations as a backup power source, suggests research and development of solid oxide fuel cells, and supports continuous upgrades to the City's power transmission system. Lastly, the commenter expresses concerns regarding political leadership and emphasizes the need to consider reliable power sources and integration of renewable sources as they become practical. This comment does not state a specific concern or question regarding the adequacy of the environmental impact analysis in the Draft EIR. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P93

April 7, 2025

Via Electronic Mail

Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
Attn: Jazmin Martin
111 N. Hope Street, Room 1044
Los Angeles, CA 90012
Email: Scattergood_CEQA@ladwp.com
RE: Public Comments - Scattergood Draft Environmental Impact Report/NREL Analysis
State Clearinghouse Number 2023050366

To Ms. Martin, Ms. Rubin, Ms. Hauptman, and Ms. Parker:

In response to NREL analysis of alternatives and Draft Environmental Impact Report (DEIR), Vote Solar, Society of Native Nations, and Youth Climate Strike LA are submitting this letter for the proposed repowering of the Scattergood Generating Station, as well as the associated NREL non-peer reviewed analysis. While the City of Los Angeles has committed to a clean energy future, this plan to retrofit Scattergood with hydrogen/methane combustion technology runs counter to that promise. The proposal is costly, unproven, and unjust—locking frontline communities into decades of pollution and ratepayers into billions in unnecessary expenses. Worse, it ignores viable, affordable, and safer alternatives that are already delivering clean, reliable energy in California and beyond. P93-1

Cleaner, Cheaper, Smarter: LADWP's Hydrogen Plan Fails on All Fronts

The Los Angeles Department of Water and Power's (LADWP) plan to repower the Scattergood Generating Station with a hydrogen-fossil gas blend is a billion-dollar mistake that prioritizes unproven and hazardous technology while disproportionately benefiting SoCalGas. The report produced under Agreement No. 47833 by the National Renewable Energy Laboratory (NREL) is deeply flawed, lacking transparency, independent peer review, and an honest assessment of non-combustion alternatives. P93-2 P93-3

The findings in the report are skewed toward justifying hydrogen combustion while dismissing viable alternatives such as Virtual Power Plants (VPPs), energy efficiency, and long-duration battery storage. Furthermore, the report overlooks critical systemic changes—such as the planned decommissioning of the Playa del Rey (PDR) Gas Storage Facility and anticipated reductions in fossil fuel infrastructure demand. As the balancing authority responsible for managing power reliability and generation for the Chevron refinery near Scattergood, LADWP's decision-making may be improperly influenced by outdated fossil fuel obligations. Failing to adequately incorporate the refinery's anticipated closure or reduced demand weakens the justification for continued reliance on combustion-based solutions, reflecting a potential bias toward maintaining legacy infrastructure over cleaner and more cost-effective alternatives. P93-4

1. Lack of Public Engagement

This proposal was developed with minimal public oversight or meaningful input from frontline communities. The project would affect millions of ratepayers, public health, and the long-term climate goals of Los Angeles, yet LADWP has not engaged in a transparent, community-driven process to explore the full range of alternatives. P93-5

2. The Analysis is Not Peer Reviewed

LADWP's decision-making is based on an unreviewed documentation that has not undergone independent scientific scrutiny. This lack of peer review raises concerns about bias and selective modeling in favor of hydrogen combustion. P93-6

3. Failure to Consider Virtual Power Plants (VPPs), Efficiency and Other Non-Combustion Models

The NREL report *explicitly* dismisses Virtual Power Plants (VPPs), battery storage, and demand response programs, claiming they are not feasible at scale, despite real-world examples proving otherwise. A study by E3 shows that replacing gas-fired plants with energy efficiency and non-combustion resources can meet reliability needs more affordably and without the pollution and safety risks of hydrogen. P93-7

Non-Combustion Resources Can Ensure Reliability

- E3's analysis shows that a combination of energy efficiency, demand response, Virtual Power Plants (VPPs), and battery storage can replace retiring gas plants without compromising grid reliability.

Hydrogen Has High Costs and Unproven Benefits

- Hydrogen combustion is significantly more expensive than clean energy alternatives, requiring costly infrastructure upgrades such as pipelines, storage, and retrofits for existing power plants. P93-8
- The study questions the feasibility of blending hydrogen in gas turbines, highlighting efficiency losses and continued NOx emissions. P93-9

Battery Storage and Distributed Energy Can Offset Gas Plant Retirements

- E3's modeling shows that long-duration energy storage (LDES) and distributed energy resources (DERs) can effectively replace gas plants in ways that hydrogen cannot. P93-10
- Unlike hydrogen, these technologies already exist at scale and continue to decline in cost.

A Clean Energy Transition Reduces Costs for Ratepayers

- Retiring gas infrastructure and investing in demand-side management, battery storage, and transmission is the most cost-effective long-term strategy. P93-11
- The study finds that maintaining or expanding gas infrastructure locks ratepayers into decades of unnecessary expenses.

Furthermore, the decommissioning of the Playa del Rey Gas Storage Facility would increase the viability of non-combustion models. Many of these alternatives rely on electricity rather than fossil fuel infrastructure, and removing outdated gas storage sites would reduce the dependency on in-basin gas peakers. P93-12

Additionally, a report by The Brattle Group highlights the reliability and cost-effectiveness of Virtual Power Plants, suggesting that VPPs can perform as reliably as conventional resources and contribute to resource adequacy at a similar scale. The study also indicates that VPPs can provide resource adequacy at a net cost that is significantly lower than traditional options, offering substantial societal benefits over a 10-year period. P93-13

4. Return on Equity and Who Benefits

The Scattergood hydrogen project forces ratepayers to shoulder a billion-dollar price tag, mirroring Georgia's costly experience with the Vogtle nuclear plant, where customers have been saddled with billions in cost overruns for risky technology. Add the fact that hydrogen at this scale is an unproven technology, and the risk to ratepayers escalates further. Meanwhile, SoCalGas would profit from expanding pipeline infrastructure, shifting the financial burden and risk disproportionately onto the public. P93-14

5. Ignoring the Health Benefits of a Non-Combustion Model

The report underestimates the NOx emissions and air quality impacts of hydrogen combustion, which still produces harmful pollutants that disproportionately affect vulnerable communities. Numerous peer-reviewed studies emphasize that non-combustion pathways, such as long-duration battery storage, offer greater public health benefits. P93-15

• The Health Benefits of Clean Energy Over Combustion-Based Power

- **Source:** Jacobson, M. Z., et al. (2023). *"Low-Cost Solutions to Global Warming, Air Pollution, and Energy Insecurity for 145 Countries."* Energy Policy
  - 🔗 **DOI: 10.1016/j.enpol.2023.113428**
  - **Key Findings:**
    - Transitioning from combustion-based energy (fossil fuels, biomass, hydrogen combustion) to 100% clean electricity and storage solutions can prevent millions of premature deaths annually.
    - Hydrogen combustion still produces nitrogen oxides (NOx), which contribute to respiratory diseases like asthma and cardiovascular issues.
    - Battery storage and VPPs enable zero-emission grid reliability without the air pollution associated with hydrogen and natural gas peaker plants.

• Long-Duration Storage as a Cleaner Alternative to Gas Peakers

- **Source:** Naimoli, S., et al. (2024). *"The Role of Long-Duration Energy Storage in Decarbonizing the Electric Grid."* Applied Energy
  - 🔗 **DOI: 10.1016/j.apenergy.2024.120957**

    - **Key Findings:**
        - Battery storage and other long-duration energy storage (LDES) technologies can replace fossil fuel peakers, significantly reducing particulate matter (PM2.5), NOx, and other harmful emissions.
        - Unlike hydrogen, which requires large amounts of energy and infrastructure for storage and distribution, batteries and VPPs are scalable and immediately reduce health impacts.
        - Studies modeling the health burden of combustion-based power plants show that transitioning to energy storage and VPPs can reduce hospitalizations and premature deaths.

P93-15 (cont'd)

• The Reliability and Public Health Benefits of Virtual Power Plants (VPPs)

- **Source:** Hledik, R., et al. (2023). *"Real Reliability: The Value of Virtual Power Plants for Grid Resilience and Decarbonization."* The Brattle Group.
    - 🔗 **Full Report**
    - **Key Findings:**
        - VPPs improve grid stability while eliminating the emissions associated with peaker plants and hydrogen combustion.
        - Grid-scale implementation of VPPs reduces exposure to pollutants in frontline communities, which are disproportionately affected by gas-fired power plants.
        - Unlike hydrogen, which still emits NOx and requires fossil fuel infrastructure, VPPs provide health benefits by avoiding combustion altogether.

These peer-reviewed studies and technical analyses directly contradict LADWP's justification for hydrogen combustion at Scattergood. Non-combustion solutions, including long-duration battery storage, demand response, and Virtual Power Plants (VPPs), provide equal or greater grid reliability without the air pollution, health risks, and safety concerns of hydrogen combustion.

6. The Price Tag: A Billion Dollars for Unproven and Dangerous Technology

The estimated $1 billion cost of repowering Scattergood with hydrogen combustion does not include key infrastructure expenses, such as new pipelines and hydrogen storage, which will drive the cost even higher. Given the rapidly falling costs of battery storage and distributed energy resources, it is fiscally irresponsible to invest in an unproven and expensive technology.

P93-16

7. Missing Costs: Pipelines, Storage, and Infrastructure

The analysis misleadingly omits key cost factors, including the expenses associated with hydrogen pipelines and underground storage. Hydrogen's low energy density requires significant new infrastructure, and none of these costs are accounted for in the study.

8. Bias in Favor of Hydrogen, Dismissing Other Technologies as 'Unproven'

P93-17

The report repeatedly claims that battery storage and other DERs are “unproven,” despite evidence to the contrary. In contrast, hydrogen combustion—a largely untested technology at this scale—is framed as a viable and ready-to-deploy solution.

Notably, NREL's own research acknowledges the potential of Virtual Power Plants (VPPs) in enhancing grid reliability and integrating renewable energy sources. The study emphasizes that VPPs can provide balancing, reliability, and resiliency grid services, and can participate in capacity, energy, and ancillary services markets. This perspective contrasts with the report's dismissal of VPPs as unproven.

P93-17 (cont'd

Real-Time Optimization and Control of Next-Generation Distribution Infrastructure: This NREL project focuses on developing a real-time optimization and control architecture that enables:

- Optimization of entire distribution grids to increase system efficiency and reliability.
- The ability for feeders, neighborhoods, and communities to emulate VPPs, providing services such as frequency support, regulating services, or capacity reserves to the grid while addressing unique operational objectives.
- Reliable integration and seamless, large-scale coordination of distributed energy resources (DERs).
- 100% integration of renewable energy resources.
- Interoperability with legacy grid components and advanced distribution management systems.

2. This project is part of the Advanced Research Projects Agency-Energy (ARPA-E) Network Optimized Distributed Energy Systems (NODES) program.
3. **Planning for Reliable Operations**: NREL's research examines the role of DERs, including VPPs, in providing grid support, enhancing reliability, and contributing to a cleaner and more sustainable energy future. The study highlights that renewable energy sources, energy storage systems, VPPs, and other DERs are not just sources of power but active participants in grid services.

These studies underscore NREL's recognition of VPPs' potential in enhancing grid reliability and integrating renewable energy sources by providing balancing, reliability, and resiliency services, and participating in capacity, energy, and ancillary services markets.

9. The Cost of Carbon and Societal Costs are Ignored

The report fails to incorporate the true societal cost of carbon emissions, continuing a trend of undervaluing the health and environmental damages caused by combustion-based power generation. Hydrogen combustion does not deliver the expected greenhouse gas reductions and instead prolongs reliance on fossil fuel infrastructure.

P93-18

10. LADWP’s Role in Supporting Fossil Fuel Infrastructure

LADWP currently serves as the balancing authority for the Chevron refinery near Scattergood, a load that will decrease as California transitions away from fossil fuels. The report does not account for this decreasing demand, meaning that the overall energy needs in the area will be lower than LADWP’s outdated modeling suggests.

P93-19

11. A Vanishing Pot of Federal Funds

Adding further insult to injury, the long-touted justification for this project—federal funding support—may be on the verge of collapse. President Donald Trump has explicitly stated he intends to claw back unspent Inflation Reduction Act funds, especially cancelling projects in predominantly Dem states which is a critical source of support for hydrogen infrastructure. Should these funds disappear, LADWP ratepayers will be left holding the bag for a project that was already teetering on the edge of economic viability.

P93-20

Let's be clear: this plan never made sense to begin with. But now, betting on unstable and politically vulnerable federal funds only increases the risk. Without that money, LADWP would either need to burden ratepayers with additional costs or walk away after wasting millions on planning and initial implementation. The $1 billion price tag—which doesn't even include the cost of new pipelines, underground storage, and other key infrastructure—could easily balloon to an even higher figure.

We simply cannot afford this boondoggle. It is fiscally irresponsible, technologically unjustified, and morally indefensible—especially when better, cleaner, cheaper alternatives already exist. This is not a moment to double down on a false solution. It is a moment to lead.

Conclusion: LADWP Must Pursue a Better Alternative

LADWP is at a crossroads. There is no need to waste a billion dollars or more on an unproven hydrogen combustion project when there are better alternatives. VPPs and more DERs can and should be a larger part of the portfolio.

P93-21

Thank you for your consideration of our comments. If you have any questions concerning these comments, please contact the undersigned.

Sincerely,

Andrea León-Grossmann
Deputy Program Director - West
Vote Solar

VOTE SOLAR

Frankie Orona
Executive Director
Society of Native Nations

Sim Bilal
Executive Director
Youth Climate Strike L.A.

Comment No. P93

April 7, 2025
Andrea León-Grossmann, Deputy Program Director--West, Vote Solar
Frankie Orona, Executive Director of Society of Native Nations
Sim Bilal, Executive Director of Youth Climate Strike L.A.

Response to Comment No. P93-1

The commenter provides introductory comments in response to the Draft EIR and NREL Alternatives Report. The commenter introduces their concerns, which are specifically detailed in subsequent comments. It should be noted that as discussed in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-2

The commenter states that the project's use of a hydrogen-gas blend is a billion-dollar mistake that prioritizes unproven and hazardous technology while disproportionately benefiting SoCalGas. The commenter does not provide project-specific context or evidence to support these claims and does not specifically address the adequacy of the Draft EIR. It should be noted that the U.S. Energy Information Administration reports that natural gas power plant operators across the U.S. are upgrading existing turbines to use a blend of natural gas and hydrogen, testing fuel blends at existing power plants, and constructing new combined cycle generating systems ranging from 74 megawatts (MW) up to 1,158 MW.[53] In addition, as described in Chapter 3, Project Description, of the Draft EIR, one of the objectives of the proposed project is to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. The project does not aim to perpetuate dependence on fossil fuels. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Also, as described in Section 3.3.1 of the Draft EIR, the project site and the proposed uses are limited to the Scattergood facility, which is overseen by LADWP; LADWP has no jurisdiction over SoCalGas' facilities, and the proposed project does not entail any additional uses of SoCalGas facilities. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-3

The commenter states that the NREL Alternatives Report is deeply flawed, lacking transparency, independent peer review, and an honest assessment of non-combustion alternatives. The commenter states that the report's findings are skewed toward justifying hydrogen combustion

[53] U.S. Energy Information Administration. 2024. In-Brief Analysis: U.S. electric power sector explores hydrogen cofiring at natural gas-fired plants. Available at: https://www.eia.gov/todayinenergy/detail.php?id=63084#:~:text=Power%20plants%20under%20construction,cofire%20up%20to%2030%25%20hydrogen. Accessed September 2025.

while dismissing viable alternatives such as Virtual Power Plants (VPPs),[54] energy efficiency, and long-duration battery storage.

As discussed above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Nonetheless, it should be noted that both the NREL Alternatives Report and Draft EIR assessed various alternatives based on factors such as feasibility, physical footprint, significance of impacts, and efficiency and ability to support grid reliability and provide a generation source that is always available, dispatchable, and local relative to the LADWP service area. The commenter is referred to **Topical Response No. 4 – Alternatives** and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, which provided an extensive assessment of alternatives as required by CEQA.

As detailed therein, alternative in-basin clean energy generation, including multiple solar photovoltaic programs to generate carbon-free, renewable energy for its power grid, is a part of LADWP's Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan) and is already being implemented by LADWP. Though local distributed renewable generation, such as that from a VPP, can be rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. Distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented. The NREL Alternatives Report further affirms that adding such variable renewable generation resources cannot meet the reliability requirements of the proposed project (e.g., provide electricity for multiple hours in a row [at least 10 hours] and for multiple days in a row during late summer afternoons and into the evening). In addition, a grid-scale battery energy (BESS) alternative was evaluated under Alternative 2 of the Draft EIR. While technically feasible, the BESS alternative would not provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is a major component in LADWP's LA100 Plan and LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions.

Furthermore, LADWP proposes increasing demand side management programs in the LA100 Plan, including energy efficiency to reduce total energy consumption and demand response to reduce peak demand for energy. While demand side management programs would help reduce GHG emissions through the reduction in overall energy demand, they would not meet the other project objectives. Specifically, demand side management programs would not help maintain a reliable electrical power system to meet peaks in demand or needs during major interruptions caused by emergency circumstances because such programs target basic demand reduction and rely on customer behavior which cannot be reliably controlled or managed. Even if the demand-response goals from the LA100 Plan are met or exceeded, the resulting resources would not supply firm, dispatchable generation capacity in the Los Angeles basin. As such, demand response is a valuable conservation strategy, but it is not a reliable source of firm dispatchable generation necessary during outages of LADWP's primary carbon-free generation and/or transmission system. Aggressive demand-side management has been accounted for in the need for the proposed project and is currently being implemented by LADWP. Demand side

[54] A virtual power plant is a system of distributed energy resources (e.g., rooftop solar panels, electric vehicle chargers, and smart water heaters) that work together to balance energy supply and demand on a large scale.

management is complementary to the proposed project and will continue as planned whether or not the project is implemented.

Lastly, the commenter is referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**, which provides information regarding a finite reliability objective and clarifies the proposed project's technical justification given the lack of feasible alternatives that can achieve this objective. Additionally, the information therein provides broader context of the project considering LADWP's other strategic clean-energy initiatives.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-4

The commenter states that the NREL Alternatives Report overlooks critical systemic changes such as the purported planned decommissioning of SoCalGas' Playa del Rey Gas Storage Facility and anticipated reductions in fossil fuel infrastructure demand. The commenter suggests that LADWP's decision-making may reflect potential bias and be influenced by fossil fuel obligations.

The commenter does not provide project-specific context or evidence to support these claims and does not specifically address the adequacy of the Draft EIR. As described above, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Additionally, it should be noted that, as described above in **Response to Comment No. P93-2**, one of the project's objectives is to reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system. The project does not aim to perpetuate dependence on fossil fuels. Furthermore, as discussed in the Initial Study of the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities nor is expected to be impacted by the closure of natural gas facilities Also, as described in Section 3.3.1 of the Draft EIR, the project site and the proposed uses are limited to the Scattergood facility, which is overseen by LADWP; LADWP has no jurisdiction over SoCalGas' facilities, and the proposed project does not entail any additional uses of SoCalGas facilities. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-5

The commenter expresses concern that LADWP has not allowed for meaningful public engagement and input on the project and alternatives. As discussed above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Therefore, no further response to comments on the NREL Alternatives Report is required, and such comments will be forwarded to the decision-makers for their review and consideration.

It should be noted that the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. Relative to public engagement for the Draft EIR, as part of the CEQA environmental process for this project, LADWP distributed a NOP to 63 agencies, organizations, and other interested parties, to inform them that LADWP planned to prepare a Draft EIR and to request input regarding the scope and content of the environmental analysis and information to be included in the Draft EIR. The NOP was circulated for a 30-day

review period with two additional extensions for a total review period of 60 days. In addition, a public scoping meeting for the project was held on June 6, 2023, to seek input from public agencies, organizations, and the general public regarding the environmental issues and concerns related to implementation of the proposed project.

Further, the public review period for the Draft EIR was conducted pursuant to CEQA Guidelines to provide interested public agencies, organizations, and individuals with the opportunity to comment on the contents and accuracy of the document. The Notice of Availability was distributed to over 500 agencies, organizations, California Native American tribal contacts provided by the Native American Heritage Commission, and other interested parties, and owners and occupants located within 500 feet of the project site. The Draft EIR was originally circulated for a 50 day-public comment period with a total of five requests for extensions to submit comments, resulting in a total public review and comment period of 159 days. In addition, a public meeting was held on November 20, 2024, to solicit comments from interested parties on the content of the Draft EIR, including alternatives.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-6

The commenter reiterates their concern regarding the lack of peer review and expresses concern with biased decision-making in favor of hydrogen combustion. With regard to the NREL Alternatives Report, as discussed above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Therefore, no further response to comments on the NREL Alternatives Report is required, and such comments will be forwarded to the decision-makers for their review and consideration.

The commenter also does not provide project-specific context or evidence to support its claims and does not specifically address the adequacy of the Draft EIR. Nonetheless, with regard to the question of bias, it should be noted that as described in Chapter 3, Project Description, of the Draft EIR, the proposed project has been identified as an integral component of LADWP's LA100 plan (formerly SLTRP),[55] which through involvement with the SLTRP Advisory Group comprised of over 45 stakeholders representing neighborhood councils, academia, community organizations, existing customers, and city and local government, establishes a roadmap for reliable and sustainable electrical power for the City, while also providing the strategy to achieve a carbon-free energy system, relying primarily on renewable solar, wind, and geothermal generation resources as well as large-capacity energy storage facilities.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-7

The commenter states that the NREL Alternatives Report dismisses VPPs, battery storage, and demand response programs. As described above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the

[55] Los Angeles Department of Water and Power. 2022. 2022 Power Strategic Long-Term Resource Plan. Available at: https://www.ladwp.com/cs/idcplg?IdcService=GET_FILE&dDocName=OPLADWPCCB794970&RevisionSelectionMethod=LatestReleased

Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Therefore, no further response to comments on the NREL Alternatives Report is required, and such comments will be forwarded to the decision-makers for their review and consideration.

The commenter reiterates their concern regarding consideration of non-combustion alternatives, as commented on in Comment No. P93-3. The commenter is referred to **Response to Comment No. P93-3**, which addresses this concern. The commenter also states that a study by Energy + Environmental Economics (E3) shows that replacing gas-fired plants with energy efficiency and non-combustion resources can meet reliability needs more affordably and without the pollution and safety risks of hydrogen. However, the E3 study linked by the commenter (titled "Avoiding Gas Distribution Pipeline Replacement Through Targeted Electrification in California") focuses on replacement of gas distribution pipelines and targeted electrification (i.e., replacing gas appliances with electric heat pumps, water heaters, and stoves), and LADWP does not oversee residential or commercial gas distribution pipelines nor provide gas utility services. In addition, the E3 study does not quantify or assess that electrification can meet the reliability needs relative to the scale of the Scattergood service area, including LAX and Hyperion Water Reclamation Plant.

No further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-8

The commenter expresses concerns regarding the cost of hydrogen combustion-related infrastructure upgrades. As stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-9

The commenter states that the E3 study questions the feasibility of blending hydrogen in gas turbines and highlights efficiency losses and continued NO_x emissions. However, the E3 study does not reference hydrogen, turbines, efficiency or NO_x. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-10

The commenter states that E3's modeling shows that long-duration energy storage and distributed energy resources can effectively replace gas plants in ways that hydrogen cannot. The commenter states that unlike hydrogen, these technologies already exist at scale and continue to decline in cost. However, as discussed above, the E3 study is focused on replacement of gas distribution pipelines and targeted electrification; the study does not reference energy storage or distributed energy resources. Nonetheless, the commenter is referred to **Response to Comment No. P93-3** for a discussion on alternatives. In addition, as described in **Response to Comment No. P93-8** regarding cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit

analysis of the proposed use. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-11

The commenter states that, per the E3 study, retiring gas infrastructure and investing in demand-side management, battery storage, and transmission is the most cost-effective long-term strategy. However, as discussed above, the E3 study is focused on replacement of gas distribution pipelines and targeted electrification; the study does not reference investments related to demand-side management, battery storage, and transmission. Nonetheless, the commenter is referred to **Response to Comment No. P93-3** for a discussion on alternatives and **Topical Response No. 1 – Proposed Project Capacity and Grid Reliability** for a discussion of LADWP transmission projects.

The commenter also states that the study finds that maintaining or expanding gas infrastructure locks ratepayers into decades of unnecessary expenses. However, as previously noted, LADWP does not oversee residential or commercial gas distribution pipelines nor provide gas utility services. Nonetheless, it is noted that as described in **Response to Comment No. P93-8** regarding cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-12

The commenter states that the purported decommissioning of the Playa del Rey Gas Storage Facility would increase the viability of non-combustion models, and removing outdated gas storage sites would reduce the dependency on in-basin gas peakers. However, LADWP has no jurisdiction over SoCalGas' facilities, and the proposed project does not entail any additional uses of SoCalGas facilities, including the Playa del Rey Gas Storage Facility. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-13

The commenter states that a report by The Brattle Group (titled "Real Reliability: The Value of Virtual Power", Volume II: Technical Appendix) highlights the reliability and cost-effectiveness of VPPs.

LADWP recognizes VPPs—aggregations of distributed energy resources (DERs) such as behind-the-meter batteries, managed electric vehicle charging, smart thermostats, and demand response—as an important and growing component of Los Angeles' transition to a carbon-free grid. LADWP's future plans explicitly incorporate significant growth in distributed solar, storage, and demand response: by 2035 LADWP plans call for approximately 1,898 MW of local distributed solar, 331 MW of distributed storage, and 815 MW of demand response capacity. However, LADWP's current technical position—supported by its Local Capacity Technical (LCT) analyses, NREL Alternatives Report, and N-1 reliability requirements—is that VPPs cannot fully replace the 346 MW of firm, in-basin capacity required to maintain reliability within the West Los Angeles service area.

Studies cited by commenters—including the Brattle Group's Real Reliability: The Value of Virtual Power Plants (2023) and E3 analyses of gas decommissioning—demonstrate that VPPs can offset or defer new system-wide capacity investments under flexible transmission conditions. LADWP concurs that VPPs have measurable resource-adequacy (RA) value at the system level. However, these studies do not model LADWP's specific local reliability constraints, which require geographically deliverable, dispatchable capacity capable of operating under transmission outages or renewable lulls.

Brattle's analysis assumes system-wide deliverability and a balancing area (BA 34 – Rocky Mountain West) with a flatter load shape and no equivalent transmission constraints to the Scattergood service area. The report itself notes that it is illustrative and "intended to be read and used as a whole" and does not represent any specific utility system. Accordingly, LADWP does not dispute the general findings but observes that they cannot be directly transferred to the Scattergood local reliability need without detailed locational modeling.

LADWP is actively advancing DER and VPP-enabling programs as part of the LA100 implementation and long-term planning while maintaining essential firm capacity such as Distributed Energy Resource Expansion; Green Meadows Grid Resiliency Project; Procurement of Distributed Energy Resource; and Distributed Smart Grid Services. LADWP is also expanding community outreach and using the LA RESET tool (developed with the University of California, Los Angeles) to evaluate how demand side management and electrification programs affect energy burden and participation across demographics. Furthermore, LADWP coordinates with NREL, EPRI, and regional utilities to assess how aggregated DER portfolios may in the future qualify for firm-capacity credit. Ongoing studies of long-duration storage, grid modernization, and distribution-level control architectures will inform future updates to LADWP's resource plans.

However, LADWP recognizes several limitations relevant to the commenters' concerns:

- **Locational Deliverability and N-1 Requirements** – VPPs depend on aggregated distributed assets that may not be geographically coincident with the Westside reliability area. The 346 MW requirement is driven by potential transmission import constraints during contingency events (e.g., wildfire or grid fault scenarios). Assets outside this pocket cannot reliably mitigate those localized events.
- **Duration and Multi-Day Performance** – While commenters cite the promise of long-duration energy storage (LDES), most deployed and contracted behind-the-meter storage within LADWP's territory provides 2–4 hours of duration. Multi-day discharge needed for extended renewable lulls (e.g. consecutive days of cloudy or rainy weather) remains largely pre-commercial. LADWP continues to monitor evolving technologies but must plan based on currently proven, commercially available capabilities.
- **Verification, Dispatch Rights, and Contractual Certainty** – To count toward firm capacity, VPP assets must have enforceable participation contracts, telemetry, performance penalties, and utility dispatch rights. LADWP's demand-side management and DER programs presently serve as energy-reduction and peak-shaving tools, not as firm RA capacity consistent with regulatory standards. LADWP is working to expand aggregator participation frameworks to close this gap.
- **Scale, Customer Participation, and Adoption Rates** – Achieving hundreds of MW of verified firm capacity through voluntary customer participation would require unprecedented aggregation and consistent multi-year performance. LADWP's high-DER sensitivity under the LA100 Plan indicates that increased DER adoption reduces annual energy (MWh) use but does not eliminate the need for firm, dispatchable capacity (MW) reserves for contingency coverage.

- **Regulatory Acceptance and Reliability Certification** – Replacing local firm capacity with aggregated DER portfolios would require demonstration that such portfolios meet N-1 and multiple-contingency reliability standards. As of 2025, no regulatory body has certified VPPs for this purpose within LADWP's balancing authority area.

In summary, based on current evidence, LADWP finds that VPPs, LDES, and demand-side management programs are strategic complements that enhance flexibility, lower emissions, and support customer participation. At present, these resources do not provide the firm, location-specific capacity required to ensure N-1 reliability within the Westside. LADWP continues to expand and evaluate VPP-enabling programs and non-combustion resources, while maintaining essential in-basin firm capacity.

With regard to cost-effectiveness, as described in **Response to Comment No. P93-8**, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

No changes to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-14

The commenter reiterates concerns that ratepayers will have to shoulder the billion-dollar price of an unproven technology while SoCalGas profits. As the concerns are identical to those in Comment No. P93-2, the commenter is referred to **Response to Comment No. P93-2**. Accordingly, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-15

The commenter states that the NREL Alternatives Report underestimates NO_x emissions, air quality impacts of hydrogen combustion, and such impacts on vulnerable communities. The commenter again expresses support for non-combustion alternatives, citing three studies that discuss battery storage, long-duration energy storage technologies, and VPPs. The commenter states that these studies directly contradict LADWP's justification for hydrogen combustion at Scattergood and that non-combustion solutions provide equal or greater grid reliability without the air pollution, health risks, and safety concerns of hydrogen combustion. As described above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Therefore, no further response to comments on the NREL Alternatives Report is required, and such comments will be forwarded to the decision-makers for their review and consideration.

With regard to analyses specific to the EIR, it is noted that as detailed in Section 4.2, Air Quality, of the Draft EIR, the construction and operational health risk assessments prepared for the project concluded that project construction and operation would not expose sensitive receptors to substantial pollutant concentrations. As also assessed therein, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment

would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x. During operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily CO, NO_x, PM_{10}, and $PM_{2.5}$ emissions for all vendors would be reduced and would remain below the respective regional mass daily significance thresholds; however, operational emissions for Vendor B (primarily related to generator startup and shutdown operations) would exceed the significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved.

With regard to concerns about non-combustion alternatives, the commenter is referred to **Response to Comment No. P93-3**. As discussed therein, various alternatives were assessed in the EIR based on factors such as feasibility, physical footprint, significance of impacts, and efficiency and ability to support grid reliability and provide a generation source that is always available, dispatchable, and local relative to the LADWP service area. The commenter is also referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**, which provides information regarding the finite reliability objective and clarifies the proposed project's technical justification given the constraints associated with the alternatives considered in the Draft EIR that can achieve this objective. Additionally, the information therein provides broader context of the project considering LADWP's other clean-energy strategic initiatives. The commenter is also referred to **Response to Comment No. P93-13** for a detailed response regarding VPPs.

With regard to safety concerns of hydrogen combustion, the commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As detailed therein, the project would comply with regulatory requirements of the National Fire Protection Association 2 and the American Society of Mechanical Engineers B31.12 and the standards outlined in Compressed Gas Association G-5.4 (such as those related to proper design, piping, pressure, safety measures), to provide an adequate and safe hydrogen system that would, among various criteria, monitor for hydrogen leakage, ignition, and other precautions. As concluded in the Draft EIR, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-16

The commenter expresses concern that the estimated cost of repowering Scattergood with hydrogen combustion does not include costly expenses related to hydrogen pipelines, storage, infrastructure. With regard to cost, as described in **Response to Comment No. P93-8**, and as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

Notwithstanding, the commenter is also referred to **Topical Response No. 2 – Hydrogen**. As discussed therein and in the Draft EIR, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the

project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure to Scattergood because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-17

The commenter states that hydrogen combustion is a largely untested technology at the project's scale. However, as described in **Response to Comment No. P93-2**, the U.S. Energy Information Administration reports that natural gas power plant operators across the U.S. are upgrading existing turbines to use a blend of natural gas and hydrogen, testing fuel blends at existing power plants, and constructing new combined cycle generating systems ranging from 74 MW up to 1,158 MW.[56]

The commenter also provides several references and reiterates their concern that the NREL Alternatives Report repeatedly claims that battery storage and other DERs are "unproven". However, it should be noted that the NREL Alternatives Report does not make this statement and instead raises concerns about the ability of alternatives to fully replace the reliability and dispatchability of the existing Scattergood Generating Station units. Furthermore, as described above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Therefore, no further response to comments on the NREL Alternatives Report is required, and such comments will be forwarded to the decision-makers for their review and consideration.

As discussed in **Response to Comment No. P93-3**, various alternatives were assessed in the EIR based on factors such as feasibility, physical footprint, significance of impacts, and efficiency and ability to support grid reliability and provide a generation source that is always available, dispatchable, and local relative to the LADWP service area. As also noted therein, alternative in-basin clean energy generation programs are already being implemented by LADWP. However, while local distributed renewable generation, such as that from a VPP, can be rapidly developed and achieve some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience. The commenter is further referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**, which provides information regarding the finite reliability objective and clarifies the proposed project's technical justification given the constraints associated with the alternatives considered in the Draft EIR that can achieve this objective. Additionally, the information therein provides broader context of the project considering LADWP's other clean-energy strategic initiatives. No further response is

[56] U.S. Energy Information Administration. 2024. In-Brief Analysis: U.S. electric power sector explores hydrogen cofiring at natural gas-fired plants. Available at: https://www.eia.gov/todayinenergy/detail.php?id=63084#:~:text=Power%20plants%20under%20construction,cofire%20up%20to%2030%25%20hydrogen. Accessed September 2025.

required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-18

The commenter states that the NREL Alternatives Report fails to incorporate the true societal cost of carbon emissions and undervalues health and environmental damages caused by combustion-based power generation. As described above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. Therefore, no further response to comments on the NREL Alternatives Report is required, and such comments will be forwarded to the decision-makers for their review and consideration.

The commenter also cites an article from Food & Water Watch and states that hydrogen combustion does not deliver expected GHG reductions and prolongs reliance on fossil fuel infrastructure. As discussed in the Initial Study prepared for the project (Appendix A of the Draft EIR), the project would substantially increase the efficiency of electrical power production in relation to fuel consumption compared to the existing steam-boiler Units 1 and 2, and it would not require an expansion of natural gas facilities. Regarding GHG emissions, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, which discusses the impacts related to GHG emissions resulting from the project. As analyzed therein, the main source of GHG emissions from project operations would be the CCGS, which would result in higher GHG emissions when run with 100 percent natural gas than a natural gas/hydrogen fuel blend. The project-generated operational GHG emissions would fall below the federal New Source Performance Standard Subpart TTTT for Greenhouse Gas Emissions for Electric Generating Units and state Senate Bill 1368 standards for all three vendors. Therefore, the project would not result in significant operational GHG emissions. Further, the proposed project's GHG emissions impacts would be consistent with federal, statewide, regional, and local policies, including the California Air Resources Board's 2022 Scoping Plan and the City's Air Quality Element of the General Plan, which are intended to reduce and eventually eliminate GHG emissions from power generation through the use of renewable resources and less-polluting fuels. As such, the project would not conflict with or obstruct regional and state-wide goals to reduce GHG emissions and climate change impacts.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-19

The commenter states that LADWP currently serves as the balancing authority for the Chevron refinery near Scattergood, a load that will decrease as California transitions away from fossil fuels. The commenter states that the NREL Alternatives Report does not account for this decreasing demand, meaning that the overall energy needs in the area will be lower than LADWP's outdated modeling suggests. As described above and in **Topical Response No. 4 – Alternatives,** NREL completed its analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR. The commenter does not specifically address the adequacy of the Draft EIR. Therefore, no further response to comments on the NREL Alternatives Report is required, and such comments will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-20

The commenter expresses concern regarding the project's uncertain federal funding and the high costs associated with its implementation. The commenter opposes the proposed project and supports better, cleaner, and cheaper alternatives. With regard to cost, as described in **Response to Comment No. P93-8**, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P93-21

The commenter concludes by restating their opposition to the project and support for other alternatives. The commenter indicates that they can be contacted if LADWP has questions about their comments above. No further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Comment No. P94

From:	Conner Everts
To:	Scattergood_Modernization_Project
Subject:	[EXTERNAL] Re: Public Comments - Scattergood Draft Environmental Impact Report/NREL Analysis State Clearinghouse Number 2023050366
Date:	Monday, April 7, 2025 8:58:50 PM

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Correction: Just Name AndreaVega

P94-1

On Apr 7, 2025, at 8:50 PM, Conner Everts <connere@gmail.com> wrote:

Subject: Opposition to the Scattergood Modernization Project

April 7, 2025

Via Electronic Mail

Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
Attn: Jazmin Martin
111 N. Hope Street, Room 1044
Los Angeles, CA 90012
Email: Scattergood_CEQA@ladwp.com
RE: Public Comments - Scattergood Draft Environmental Impact Report/NREL Analysis
State Clearinghouse Number 2023050366

To Ms. Martin, Ms. Rubin, Ms. Hauptman, and Ms. Parker:

On behalf of a broad coalition of environmental justice organizations, water advocates, and coastal protection groups, we strongly oppose the proposed Scattergood Modernization Project. This project presents an unacceptable threat to our precious coastal and marine ecosystems, drinking water resources, and the communities that depend on them. We urge LADWP to abandon this deeply flawed plan and instead pursue truly sustainable, non-combustion alternatives.

P94-2

Water Scarcity and the Human Right to Water

California's Constitution enshrines the human right to water (AB 685), obligating the state to ensure access to safe, clean, and affordable drinking water before allocating water for industrial purposes. LADWP's proposal to repower Scattergood with a hydrogen-gas blend blatantly disregards this mandate. Electrolysis, which this project would require at scale, is an incredibly water-intensive process that would divert vital water resources away from communities struggling with access to safe drinking water. Until the water needs of every

P94-3

Angeleno are met, no public water should be sacrificed for speculative hydrogen production.

Microplastics and Public Health Risks

P94-3 (cont'd)

The materials used in hydrogen electrolyzers, particularly polymer-based membranes, have raised serious concerns in Europe, where policymakers are moving toward potential bans. The presence of polymer degradation in electrolyzers could introduce harmful microplastics into our water supply, exacerbating an already dire pollution crisis. Should these materials face regulatory prohibition in California, Scattergood risks becoming a stranded asset —a billion-dollar mistake borne by LADWP ratepayers.

Threat to Coastal Access and Marine Life

The Scattergood site is located at the edge of one of Southern California's most ecologically sensitive coastal zones. The ongoing degradation of the Ballona Wetlands, a crucial habitat for migratory birds and marine species, cannot be ignored. This project's construction and operation will introduce new environmental stressors, increasing noise pollution, chemical runoff, and habitat disruption for vulnerable species. Furthermore, increased hydrogen combustion will contribute to harmful nitrogen oxides (NOx) emissions, worsening air quality in coastal communities already suffering from industrial pollution.

P94-4

P94-5

Potential Risks to the Hyperion Water Reclamation Plant

The proximity of Scattergood to the Hyperion Water Reclamation Plant raises serious concerns about the risk of catastrophic failure. A malfunction, leak, or explosion at the hydrogen plant could directly impact the operation of Hyperion, the city's largest wastewater treatment facility. This would not only create an environmental disaster but also pose a direct threat to public health and access to clean water. LADWP has not adequately addressed the implications of such a scenario.

P94-6

A Dangerous Investment in a Stranded Asset

European nations are already moving to restrict the use of polymer-based electrolyzers due to environmental and health concerns. Should California follow suit, LADWP will be left with an unviable hydrogen project, rendering this enormous investment a costly stranded asset. Rather than locking ratepayers into an uncertain and dangerous future, LADWP must prioritize clean, proven alternatives such as Virtual Power Plants, expanded energy storage, and demand-side management.

P94-7

P94-8

Conclusion

LADWP has a responsibility to protect Los Angeles' communities, water resources, and coastal ecosystems. The Scattergood Modernization Project, as proposed, fails on all these fronts. We demand that LADWP halt this project and instead invest in safe, non-combustion alternatives that do not compromise our environment or public health. Our coalition stands ready to engage in meaningful dialogue on a just and sustainable path forward, one that prioritizes equity, climate resilience, and the fundamental right to clean water.

P94-9

We look forward to your response and urge immediate reconsideration of this misguided project.

P94-9
(cont'd)

Sincerely,

Conner Everts

Chair

Desal Response Group

Executive Director

Southern California Watershed Alliance

Andrea Vega

Southern California Senior Organizer

Food and Water Watch

Jack Eidt

Co-Founder

SoCal 350 Climate Action

Lydia Ponce

Lead Organizer

Idle No More So Cal/Venice

Steven Starr

XRNow!

Extinction Rebellion Radio

Esperanza Vielma

Executive Director

Environmental Justice Coalition for Water

Comment No. P94

April 7, 2025
Conner Everts, Chair, Desal Response Group, Executive Director, Southern California Watershed Alliance
Andrea Vega, Southern California Senior Organizer, Food & Water Watch
Jack Eidt, Co-Founder, SoCal 350 Climate Action
Lydia Ponce, Lead Organizer, Idle No More So Cal/Venice
Steven Starr, XRNow! Extinction Rebellion Radio
Esperanza Vielma, Executive Director, Environmental Justice Coalition for Water

Response to Comment No. P94-1

The commenter notes that a spacing correction was made. The comment does not address the adequacy of the proposed project's Draft EIR, and no further response is required.

Response to Comment No. P94-2

The commenter expresses opposition to the project and requests that LADWP reject the project and instead pursue sustainable, non-combustion alternatives. The commenter introduces specific concerns that are further detailed in Comment Nos. P94-3 through P94-9. Refer to **Responses to Comments Nos. P94-3 through P94-9** for specific responses to such concerns. No additional response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P94-3

The commenter states that the project's proposed use of hydrogen disregards AB 685, which identifies the human right to water in California. Specifically, the commenter states that the production of hydrogen would divert vital water resources away from communities struggling with access to safe drinking water. The commenter also expresses concern regarding materials used in hydrogen production process and how polymer degradation could introduce harmful microplastics into water supply. The commenter states that if such materials become prohibited in the state, Scattergood could become a stranded asset at the expense of by LADWP ratepayers. The commenter is referred to **Topical Response No. 2 – Hydrogen**. As detailed therein and in the Draft EIR, LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project. The proposed project would not produce hydrogen or result in an onsite water demand to produce hydrogen. As stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available.

In addition, with regard to concerns about cost, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use.

No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P94-4

The commenter states that the project will introduce new environmental stressors to the Ballona Wetlands, including noise pollution, chemical runoff, and habitat disruption.

With regard to concerns related to noise associated with project construction and operations, the commenter is referred to Section 4.5, Noise, of the Draft EIR. As detailed therein, the project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, and the project would not generate excessive groundborne vibration or groundborne noise levels. Noise impacts associated with the project were determined to be less than significant.

With regard to concerns related to runoff, as discussed in Section 4.0, Environmental Impact Analysis, of the Draft EIR, transport of sediments by stormwater runoff and wind during construction would be prevented through Best Management Practices, such as implementation of SCAQMD Rule 403 dust control measures and a Stormwater Pollution Prevention Plan (SWPPP) for construction activities in compliance with the latest Los Angeles Regional Water Quality Control Board National Pollutant Discharge Elimination System (NPDES) permit requirements for stormwater discharges. In addition, the handling of construction-related hazardous materials would occur in conformance with applicable local, state, and federal regulations, including the implementation of a SWPPP. Following construction, as the area of impervious surfaces at the project site would be similar to existing conditions, there would be no substantial soil erosion, siltation, or flooding from surface runoff.

During operation, hazardous materials and waste would also be handled, documented, and disposed of in accordance with federal, state, and local laws and regulations. As acknowledged in the Draft EIR, given the functions of Scattergood and surrounding uses, the potential to encounter hazardous wastes and contaminated soils during excavation and other construction activities exists. As such, a Soil/Sediment Management Plan (MM-HAZ-1) and Waste Management Plan (MM-HAZ-2) would be implemented to identify and properly manage hazardous materials such that accidental releases to the environment are minimized, reducing potential impacts to less than significant. During operation, similar to existing conditions, in accordance with the existing Risk Management Plan for Scattergood, all project components would be designed to ensure hazardous materials would be contained and that such substances would not spill or leak, and handling would occur in conformance with applicable local, state, and federal regulations. With regard to hydrogen-related hazards during project operation, the commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As discussed therein, based on compliance with regulatory requirements of the National Fire Protection Association (NFPA) 2 and the American Society of Mechanical Engineers (ASME) B31.12 and the standards outlined in Compressed Gas Association (CGA) G-5.4, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

With regard to concerns related to habitat disruption, the commenter is referred to biological resources analyses in the Initial Study of the project (Appendix A of the Draft EIR) and Chapter 4, Environmental Impact Analysis, of the Draft EIR. As discussed therein, a Biological Resources Assessment was prepared for the proposed project, which determined the potential for special-status species to occur on or within the general vicinity of Scattergood. The assessment found that based on a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, only the El Segundo blue butterfly is expected to occur in the study area. However, based on the results of the conducted field survey, no suitable habitat for the El Segundo blue butterfly was observed that would be impacted by the proposed project footprint.

Nonetheless, as discussed in **Response to Comment No. A1-3**, incidental impacts to El Segundo blue butterfly can be avoided with implementation of the CDFW's recommended mitigation measure, which includes two pre-project surveys to be conducted within one week prior to initiation of construction activities. Accordingly, this mitigation measure will be implemented for the project and is incorporated as Mitigation Measure MM-BIO-2 in **Chapter 3, Text Revisions and Additions to the Draft EIR**, of the Final EIR.

With regard to birds, as described in Chapter 4, Environmental Impact Analysis, of the Draft EIR, although suitable nesting habitat for various year-round and seasonal bird species occur within the survey area, no active nests or birds displaying overt nesting behavior were observed during the field survey of Scattergood. No trees are located within the footprint of the proposed project facilities; therefore, no trees would be removed for the project, and no direct impacts would occur. Indirect impacts to nesting birds within the survey area could occur as a result of noise, increased human presence, and vibrations resulting from construction activities. Disturbances related to construction could result in increased nestling mortality due to nest abandonment or decreased feeding frequency. Trees suitable for nesting are not generally located adjacent to areas of Scattergood that would be subject to construction activity. Nonetheless, because indirect impacts to nesting birds could occur, nesting bird surveys and protocol would be conducted during project construction pursuant to Mitigation Measure MM-BIO-1 to ensure indirect impacts to nesting birds would be less than significant.

Moreover, no impacts to sensitive natural communities (including riparian habitat) or state or federally protected wetlands would occur from project implementation. Based on the U.S. Fish and Wildlife Service National Wetlands Inventory, there are no wetlands within the Scattergood property and a 100-foot buffer, and no wetland features were observed within this survey area. The proposed project would construct a CCGS on approximately 3 acres and operations would be limited to the boundaries of the Scattergood facility. As such, the proposed project would not result in impacts to wetlands, including the Ballona Wetlands which is located approximately 3 miles north of the Scattergood property.

No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P94-5

The commenter states that hydrogen combustion will result in harmful NO_x emissions and will worsen air quality. The commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which determined that mass emissions of all criteria pollutants from construction, except for NO_x, would be below applicable SCAQMD significance thresholds. However, with implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent

a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

With regard to public health, the commenter is referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant.

No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P94-6

The commenter expresses concern with regard to the risk of hydrogen-related malfunctions, leaks, or explosions, especially since Scattergood is located near the Hyperion Water Reclamation Plant. The commenter states that LADWP has not addressed the implication of a disaster scenario. Accordingly, the commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As detailed therein and referenced in **Response to Comment No. P94-4**, the project would comply with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards outlined in CGA G-5.4 (such as those related to proper design, piping, pressure, safety measures), to provide an adequate and safe hydrogen system that would, among various criteria, monitor for hydrogen leakage, ignition, and other precautions. As concluded in the Draft EIR, the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P94-7

The commenter reiterates their concerns related to materials used in hydrogen production process and the possibility that if such materials become prohibited in the state, Scattergood could become a stranded asset at the expense of by LADWP ratepayers. As these concerns are raised in Comment No. P94-3, the commenter is referred to **Response to Comment No. P94-3** for the relevant response. No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P94-8

The commenter states that LADWP should prioritize alternatives, such as Virtual Power Plants, [57] expanded energy storage, and demand-side management. The commenter is referred to **Topical Response No. 4 – Alternatives** of this Final EIR and in Chapter 5, Alternatives to the

[57] A virtual power plant is a system of distributed energy resources (e.g., rooftop solar panels, electric vehicle chargers, and smart water heaters) that work together to balance energy supply and demand on a large scale.

Proposed Project, of the Draft EIR. As detailed therein, alternative in-basin clean energy generation, including multiple solar photovoltaic programs to generate carbon-free, renewable energy for its power grid, is a part of LADWP's LA100 Plan (formerly SLTRP) and is already being implemented by LADWP. Though local distributed renewable generation can be rapidly developed and achieves some objectives similar to those of the proposed project, its intermittent and variable nature would not represent an always available, dispatchable source of electrical energy that could provide reliability and resilience under all circumstances. As mentioned above, distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

In addition, a grid-scale battery energy storage system (BESS) alternative was evaluated under Alternative 2 of the Draft EIR. While technically feasible, the BESS Alternative would not provide a comparable generation capacity as the proposed project CCGS and would require substantially more real estate that greatly exceeds the area available at Scattergood. However, energy storage throughout the LADWP service area is a major component in LADWP's LA100 Plan and LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions.

Furthermore, LADWP has proposed increasing demand side management programs in the LADWP's LA100 Plan, including energy efficiency to reduce total energy consumption and demand response to reduce peak demand for energy. While demand side management programs would help reduce GHG emissions through the reduction in overall energy demand, they would not meet the other project objectives. Specifically, demand side management programs would not help maintain a reliable electrical power system to meet peaks in demand or major interruptions caused by emergency circumstances because such programs target basic demand reduction and rely on customer behavior. Even if the demand-response goals from the LA100 Plan are met or exceeded, the resulting resources would not supply firm generation capacity in the Los Angeles basin. As such, demand response is a valuable conservation strategy, but it is not a reliable source of firm dispatchable generation necessary during outages of LADWP's primary carbon-free generation and/or transmission system. Aggressive demand-side management has been accounted for in the need for the proposed project and is currently being implemented by LADWP. Demand side management is complementary to the proposed project and will continue as planned whether or not the project is implemented.

No further response is required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P94-9

The commenter expresses opposition and concludes by stating LADWP has a responsibility to protect the City's communities, water resources, and coastal ecosystems. The commenter shares that their coalition stands ready to engage in meaningful dialogue on a path forward. While the comment does not specifically address the adequacy of the Draft EIR, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

April 7, 2025

Via Electronic Mail

Los Angeles Department of Water and Power
Corporate Environmental Affairs
Environmental Planning and Assessment
Attn: Jazmin Martin
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RE: Public Comments - Scattergood Draft Environmental Impact Report
State Clearinghouse Number 2023050366

To Ms. Martin, Ms. Rubin, Ms. Hauptman, and Ms. Parker:

Thank you for the opportunity to comment on the Draft Environmental Impact Report ("DEIR") for the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project ("Project"). The DEIR describes the plan of the Los Angeles Department of Water & Power ("LADWP") to replace two methane-combustion units at the Scattergood Generating Station with units that will blend a methane-hydrogen fuel mix and support the LADWP electrical power system. P95-1

Sierra Club, Communities for a Better Environment ("CBE"), Los Angeles Waterkeeper ("LA Waterkeeper"), Center for Biological Diversity ("CBD"), Food and Water Watch

("FWW"), Vote Solar, California Environmental Justice Alliance ("CEJA"), and Central Coast Alliance United for a Sustainable Economy ("CAUSE") submit these comments jointly (parties referred to hereinafter as "Environmental & EJ Parties"). These comments were prepared with the assistance of air quality and energy capacity experts at PSE Healthy Energy and incorporate by reference their report as **Exhibit 1**.[1] These comments show that the DEIR is legally inadequate because it fails to meet the requirements of the California Environmental Quality Act ("CEQA"). The DEIR must be recirculated in the form of a Program DEIR, or as a revised DEIR, that does the following:

P95-1 (cont'd)

- Evaluates programmatic cumulative environmental impacts from LADWP's broader plans for in-basin generation from hydrogen combustion;
- Evaluates programmatic cumulative environmental impacts for the suite of new infrastructure and transportation needed to enable hydrogen combustion at Scattergood, rather than improperly zero in on Scattergood's combustion operations;
- Evaluates air quality, greenhouse gas ("GHG") emissions, and other environmental impacts against a Scattergood retirement baseline, one that accounts for the legally-mandated 2029 closure of the OTC units (Units 1 and 2) at Scattergood;
- Updates the project description to appropriate details on capacity needs, reliability objectives, transportation, storage, and other considerations as listed in Section III below; and
- Includes an analysis of air quality impacts and GHG emissions impacts that incorporates multiple potential capacity factors, leakage rates, and potentially elevated nitrogen oxide ("NOx") emissions from hydrogen blend combustion.

P95-2

In addition, we urge LADWP and will urge the City of Los Angeles to direct LADWP to publicly release and incorporate adequate public comment on its hydrogen alternative analyses—including both the very recently released Hydrogen Alternatives Analysis from the National Renewable Energy Laboratory ("NREL")[2] and the results of LADWP's 2022 Power Strategic Long-Term Resource Plan ("SLTRP") No Combustion scenario—before proceeding further with

P95-3

[1] PSE Healthy Energy, *Assessment of LADWP's Draft Environmental Impact Report for Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project* (April 2025) [hereinafter "PSE Healthy Energy Report" or "PSEHE Report" and attached as **Exhibit 1**].

[2] The NREL Alternatives Analysis was made available to commenters on March 4, 2025—one month before the DEIR comment period deadline.

the Scattergood modernization project. LADWP is poised to ask Los Angeles residents to pay for a multi-billion-dollar investment in hydrogen combustion that will have significant public health, environmental, and financial impacts, but the DEIR was issued prematurely and without adequate consideration of the environmental impacts as mandated by CEQA.

P95-3 (cont'd)

I. LEGAL BACKGROUND

CEQA is a comprehensive statute designed to provide for long-term protection of the environment. It accomplishes this in two ways. First, CEQA is designed to inform decisionmakers and the public about the potential significant environmental effects of a project. (Cal. Code Regs. Tit. 14 ("CEQA Guidelines"), § 15002(a)(1).) Such disclosure ensures that "long term protection of the environment . . . shall be the guiding criterion in public decisions." (Pub. Resources Code § 21001(d).) The DEIR is the "heart" of this requirement. (*See No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d 68, 84 (1974).) The DEIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return." (*County of Inyo v. Yorty*, 32 Cal. App. 3d 795, 810 (1973).)

P95-4

CEQA requires public agencies to avoid or reduce environmental damage whenever feasible by considering changes in projects through project alternatives or mitigation measures. (*See* CEQA Guidelines, §§ 15002(a)(2)-(3); *see also Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal. 3d 553, 564 (1990); *Laurel Heights Improvement Association v. Regents of the University of California*, 47 Cal. 3d 376, 399 (1988) [as modified on reh'g. denied Jan. 26, 1989].) An accurate and complete project description is central to this requirement so "affected outsiders and public decision-makers [can] balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the 'no project' alternative), and weigh other alternatives in the balance." (*County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d 185, 192–93 (1977).) "The DEIR is intended to furnish both the road map and the environmental price tag for a project, so that the decision maker and the public both know, before the journey begins, just where the journey will lead, and how much they—and the environment—will have to give up in order to take that journey." (*Natural Resources Defense Council v. City of Los Angeles*, 103 Cal. App. 4th 268, 271 (2002).)

II. PROCEDURAL CONCERNS

A. The DEIR Constitutes Improper CEQA Piecemealing

In the DEIR, LADWP improperly piecemeals the environmental impacts of the Scattergood Modernization Project by excluding consideration of reasonably foreseeable cumulative impacts from future related projects, in two primary ways: (1) the DEIR considers only the environmental impacts from the Scattergood Modernization Project, without considering the cumulative impacts of other planned hydrogen fueling actions for its other in-basin power plants and infrastructure in LADWP's energy system; and (2) the DEIR ignores environmental issues arising from the production, storage and transportation of hydrogen, as well as the special issues involved in emissions control of the combustion products of hydrogen. Because the Scattergood retrofit is one component of a broader program under the SLTRP to transform LADWP's energy generation grid to incorporate hydrogen gas, LADWP must revise the DEIR to be a programmatic DEIR encompassing all aspects of its related plans for a hydrogen system, or alternatively recirculate the DEIR to fully consider the effects of intertwined hydrogen projects in its cumulative impacts analysis. P95-5

1. Legal standards regarding piecemealing

The CEQA Guidelines provide guidance for determining if a project's effects are significant. Such a determination "calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data" and a "consider[ation of] the views held by members of the public in all areas affected." (CEQA Guidelines §§ 15064(b)-(c).) The lead agency must consider both direct and indirect physical changes in the environment caused by the project. (*Id.* § 15064(d).)

"The CEQA process is intended to be a careful examination, fully open to the public, of the environmental consequences of a given project, covering the entire project, from start to finish." (*Natural Resources Defense Council*, 103 Cal. App. 4th at 271.) CEQA requires analysis of "the whole of an action" and prohibits evading comprehensive CEQA analysis by "chopping a large project into many little ones -- each with a minimal potential impact on the environment -- which cumulatively may have disastrous consequences." (CEQA Guidelines § 15378(a); *Bozung v. LAFCO*, 13 Cal. 3d 263, 283-84 (1975). The whole of the project for which environmental review must occur includes "all phases of project planning, implementation, and operation." (CEQA Guidelines §15063(a)(1).) Informational deficiencies in the cumulative impacts analysis

preclude an accurate accounting of impacts, constituting failure to proceed in manner required by law. *Bakersfield Citizens for Local Control v. City of Bakersfield*, 124 Cal. App. 4th 1184, 1120-21 (2004). Thus, the agency must interpret the cumulative impacts "in such a way as to 'afford the fullest possible protection of the environment.'" (*Friends of the Eel River v. Sonoma County Water Agency*, 108 Cal. App. 4th 859, 868 (2003).)

Multiple individual projects can be determined to be part of a larger whole, necessitating holistic environmental review of the cumulative impacts of all projects to avoid improper piecemealing. (*See*, *e.g.*, *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus*, 27 Cal. App. 4th 713, 730 (1994) ("'Project' is given a broad interpretation" under CEQA to ensure "that environmental considerations do not become submerged by chopping a large project into many little ones, each with a potential impact on the environment, which cumulatively may have disastrous consequences"); *Del Mar Terrace Conservancy, Inc. v. City Council of the City of San Diego*, 10 Cal. App. 4th 712, 733-34 (1992) (determination of whether projects are separate for CEQA purposes rests in part on whether they have "independent utility").) P95-5 (cont'd)

If CEQA analysis is improperly piecemealed, the result is often a failure to properly analyze, disclose, and mitigate a project's cumulative environmental impacts. An DEIR is required "if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable . . . when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects." (CEQA Guidelines § 15064(h)(1).) The term "cumulative impact" is defined as the following:

> The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

(*Id.* § 15355.) Cumulatively considerable environmental effects require a mandatory finding of significance. (*Id.* § 15065(a)(3).)

The relevant standard for considering cumulative impacts in environmental impact reports is as follows: "[A]n DEIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or

nature of the initial project or its environmental effects." (*Laurel Heights*, 47 Cal. 3d at 396.) It is well-settled that "[a] public agency is not permitted to subdivide a single project into smaller individual subprojects in order to avoid the responsibility of considering the environmental impact of the project as a whole." (*Orinda Assn. v. Board of Supervisors*, 182 Cal. App. 3d 1145, 1171 (1986); *see also Berkeley Keep Jets Over the Bay Com. v. Board of Port Cmrs.*, 91 Cal. App. 4th 1344, 1358, as modified on denial of reh'g (2001).) This includes cumulative impacts which may otherwise be missed by focusing on a project segment of a larger program—the requirements of CEQA "cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial." (*Orinda Assn.*, 182 Cal. App. 3d at 1171.)

P95-5 (cont'd)

The cumulative effects analysis in the DEIR must consider (1) similar hydrogen modernization retrofit projects at other generation facilities in the Los Angeles basin, including the Valley Generating Station, Harbor Generating Station, and Haynes Generating Station, and (2) the production, transportation, and combustion of green hydrogen associated with these hydrogen projects.

2. The DEIR fails to evaluate cumulative impacts from similar hydrogen conversion plans at LADWP's other generation facilities

The Scattergood Modernization Project is just one component of a basin-wide effort to modernize LADWP's generation facilities for reliability purposes. In addition to the planned actions at Scattergood discussed in the DEIR, LADWP has also unequivocally expressed an intent to undertake similar hydrogen combustion conversions at other LADWP plants, along with changes to its infrastructure as necessary to safely supply hydrogen fuel to Scattergood and its other facilities. Nevertheless, the DEIR is focused almost entirely on the work to be performed within the boundaries of the powerplant. Failing to consider system-wide impacts and other planned conversions as part of the CEQA analysis for the Scattergood Modernization Project deprives the public and decisionmakers of key information about the project and its reasonably foreseeable future impacts, and it prevents adequate consideration of all reasonable alternatives and mitigation measures that may address those impacts.

P95-6

Here, the environmental impacts from Scattergood's modernization are not realized in isolation, but rather are part of a basin-wide effort that includes other closely related and probable future projects. As acknowledged by the Initial Study for the DEIR, this retrofit is the

first of a pre-planned series of interconnected projects designed to build out hydrogen infrastructure in the LA basin,[3] which collectively will have significant impacts beyond the incremental impacts of each project individually. These impacts include, but are not limited to, increased emissions from combustion of hydrogen and fossil fuels, and increased impacts to water quality and water supply related to sourcing, producing, transporting, and storing hydrogen gas.

Beyond LADWP's own admissions in the Initial Study for this DEIR, there is ample evidence that Scattergood is one component of a basin-wide electricity grid modernization effort. LADWP's latest SLTRP from 2022 states:

P95-6
(cont'd)

> One of the key findings of the LA100 Study was the need for firm and dispatchable generation near the primary customer load center to ensure reliability of LADWP's electricity grid, specifically during stressed load conditions such as wildfires. The SLTRP's Core Cases also confirmed through modeling that firm and dispatchable generation sites within the Los Angeles Basin would be required and provided by combined-cycle and combustion turbine generating units running on 100% green hydrogen by 2035. The first such generation unit is anticipated to commence commercial operations in 2029 and will be situated at LADWP's Scattergood Generating Station. This generating unit is assumed to be a fast-ramping combined cycle unit capable of burning 30% green hydrogen by volume at its commencement of commercial operations. This percentage will be increased such that it will run on 100% green hydrogen by 2035. Several other units slated to be running on green hydrogen are assumed to be built during the 2030s and 2040s, situated at LADWP's Harbor, Haynes, Scattergood, and Valley Generating Stations. These green hydrogen resources will transform LADWP's in-basin generation to maintain reliability and resiliency metrics with increasing load growth primarily driven by electrification using carbon-free generation.[4]

The DEIR confirms that the Scattergood modernization project is "an integral component of [the SLTRP]."[5] While the analysis of the environmental impacts in the DEIR carefully minimizes the allusions to this larger plan, the DEIR does still state that the use of the hydrogen generators (or the "combined-cycle generation system" or CCGS) "would allow LADWP to

[3] LADWP, Initial Study: Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (May 2023), p. 4 ("The LADWP in-basin combustion-turbine generation system, including Scattergood and other generating stations, would be retained through a conversion to renewable hydrogen fuel.").
[4] SLTRP, p. ES 22; *see also id.* at 1-21 (similar passage referencing hydrogen-powered units being installed through the 2040s at Harbor, Haynes, Scattergood, and Valley Generating Stations).
[5] DEIR, p. 4.2-10.

begin the conversion from natural gas to green hydrogen."[6] Despite these descriptions of the way this Project constitutes an initial step in a larger project, as discussed further in Section II.A.3 below, LADWP does not consider the impacts of the hydrogen buildout portions of that larger project.

While the DEIR contains a short list of projects that may lead to cumulative impacts, such as the Hyperion 2035 Program,[7] that section of the DEIR does not consider or respond to community groups' comments from the CEQA scoping period that related projects, such as the other power plant conversions and the necessary hydrogen infrastructure, should be considered in the cumulative impacts analysis. Given that LADWP has stated it "assumed" that three other generating stations would undergo similar conversions as part of the city's centralized plan to transform its generation capabilities, it would be inconsistent for LADWP to then claim that these future elements of the same plan are not "reasonably foreseeable" and "probable."[8] It also would make little sense for a brand new green hydrogen system to be built in the region to supply a single power plant. Seeing as hydrogen infrastructure is essential for the project to operate as planned, the assumption that the hydrogen support system will be built presupposes that other power plants will also undergo hydrogen conversion. LADWP cannot have it both ways by refusing to consider the environmental impacts of the hydrogen conversion projects at its three other generating facilities, or the impacts of infrastructure necessary to create a hydrogen system for all four plants, if it assumes hydrogen infrastructure will be in place to support the Scattergood facility's operations.

P95-6 (cont'd)

Ultimately, the DEIR characterizes the SLTRP as determining that "obtaining a carbon-free energy system requires considerable investments in renewable generation, energy storage, and transmission infrastructure as well as initiatives to conserve energy."[9] Because Scattergood's modernization to combust hydrogen is an integral part of "considerable investments" in a system-wide change in power generation in LADWP's jurisdiction, the environmental impacts from the project cannot be assessed individually without considering the impacts from the other three planned projects that together encompass LADWP's full plans for grid modernization.

[6] *Id.* at 3-1, 6-1.
[7] *Id.* at 4-2.
[8] SLTRP at ES 22; CEQA Guidelines § 15355.
[9] DEIR at 3-11. In fact, there are only two references to Harbor Generating Station, Haynes Generating Station, and Valley Generating Station throughout the entire DEIR, each time both in the context of generally describing LADWP's generation system. DEIR at 3-10, 5-4.

Accordingly, the DEIR's failure to consider the cumulative impacts from the other basin-wide modernization projects embodied in the SLTRP constitutes illegal and improper piecemealing under CEQA.

P95-6 (cont'd)

3. The DEIR fails to analyze cumulative impacts from green hydrogen production, storage, transportation, and combustion

Similarly, the DEIR fails to consider the potential environmental impacts associated with building the infrastructure necessary to combust green hydrogen at the Scattergood facility. A common thread in the SLTRP is the uniform need for conversion projects at LADWP's four in-basin generation facilities to combust green hydrogen. As admitted in the DEIR, currently no utility-scale source of green hydrogen is available.[10] Nearly all hydrogen used in California today is produced through fossil-based steam reformation of methane ("SMR"), which emits NOx, fine particulate matter, carbon monoxide, and volatile organic compounds.[11] The DEIR states the intent to procure hydrogen gas from clean sources, rather than SMR, but the DEIR claims "the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown."[12] Based on this contention, LADWP declines to discuss the supply of green hydrogen to Scattergood or analyze associated environmental impacts in the DEIR, and instead vaguely intends to analyze hydrogen supply in a "separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts is available."[13]

P95-7

The omission of any analysis of green hydrogen production, transmission, delivery, or storage violates CEQA's prohibition against piecemealing of interrelated projects. The construction and operation of green hydrogen infrastructure is certainly a reasonably foreseeable consequence of the Project, and sufficient information exists to begin analyzing environmental impacts from developing necessary hydrogen gas infrastructure in the Scattergood DEIR. Pushing such analysis to an undefined later stage is inconsistent with CEQA's requirement to analyze the entirety of a proposed project concurrently to consider all cumulative impacts fully.

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[10] DEIR at 3-3 ("The necessary infrastructure for the production, delivery, and storage of green hydrogen needed to support the proposed project currently does not exist."). *See also* PHEHE Report, pp. 26-27.
[11] Pinping Sun et al., Criteria Air Pollutants and Greenhouse Gas Emissions from Hydrogen Production in U.S. Steam Methane Reforming Facilities, 53 Env't Sci. & Tech. 7103 (2019), *available at* https://www.osti.gov/pages/biblio/1546962.
[12] DEIR at 3-3.
[13] *Id.*

A project under CEQA is defined as "the whole of an action" that may result in direct, or reasonably foreseeable indirect, change in the environment. (CEQA Guidelines § 15378(a).) The court in *Tuolumne County Citizens for Responsible Growth, Inc. v. City of Sonora*, 155 Cal. App. 4th 1214 (2007) noted three factors to be considered to determine what constitutes the "whole" of a project that must be analyzed for environmental impacts: (1) relationship in time; (2) physical location; and (3) the entity undertaking the action. (*Id.* at 1227.) Here, the DEIR simply cannot ignore the cumulative environmental impacts from the buildout of necessary hydrogen infrastructure to supply Scattergood with hydrogen gas, because each of these three criteria are satisfied. P95-7 (cont'd)

First, hydrogen infrastructure bears a close relationship in time to the Scattergood retrofit project, because the latter cannot function as intended under the DEIR without the former. Under the "independent utility" test, it would be patently absurd to assert that the installation of a CCGS that is specifically designed and intended to burn green hydrogen has independent utility without the green hydrogen supply system that would be required to take advantage of those functions. (*Del Mar Terrace Conservancy, Inc.*, 10 Cal. App. 4th at 733-34.) While the CCGS could theoretically function with a 0% hydrogen fuel mixture, LADWP makes clear that the project is "integral to the goal of implementing a carbon-free energy system" outlined in the SLTRP.[14] This cannot happen without the construction of linked hydrogen infrastructure, regardless of whether LADWP simply procures hydrogen gas on the open market (as the DEIR claims will be the case),[15] because LADWP admits that such a market and necessary infrastructure does not currently exist.[16] Therefore, a green hydrogen production and transportation system would need to be developed in one shape or another in the Los Angeles region to make LADWP's goals for Scattergood a reality.

Second, the physical location of the green hydrogen infrastructure is necessarily intrinsically linked to the Scattergood facility, as hydrogen gas will need to be supplied to

[14] *Id.* at 2-1. At the same time, due to the lack of a coherent project description regarding how the retrofitted Scattergood facility will be used in LADWP's generation portfolio, we are gravely concerned at the lack of analysis in the DEIR about the possible scenario of utilizing the Scattergood facility to combust pure natural gas as a baseline generation plant in the event that a viable hydrogen gas supply fails to materialize.

[15] *Id.* at 2-2 ("LADWP would not implement or operate this hydrogen infrastructure would be a purchaser of hydrogen to supply the proposed project.").

[16] *Id.* at 3-3 ("The necessary infrastructure for the production, delivery, and storage of green hydrogen needed to support the proposed project currently does not exist.").

Scattergood directly through pipelines and other conveyances. Indeed, project proposals to develop hydrogen piping infrastructure that physically connect to Scattergood and other LADWP facilities are already being advanced. For example, Southern California Gas Company ("SoCalGas") aims to construct and operate a major new hydrogen pipeline system, the Angeles Link Project, to transport 100% "clean renewable hydrogen" to third-party customers in the Los Angeles basin.[17] One of the largest customers of Angeles Link would presumably be LADWP for the Scattergood power plant, which is the first generation plant in the Los Angeles basin slated for hydrogen combustion. SoCalGas has already prepared, published, and solicited stakeholder feedback on several Angeles Link feasibility studies in line with California Public Utilities Commission ("CPUC") planning processes.[18] In December 2024, SoCalGas submitted an application with the CPUC for Phase 2 activities and associated revenue requirements, stating that the Phase 1 feasibility studies "confirm the [CPUC's] findings" that it is "technically feasible" to develop a hydrogen system in the Los Angeles area.[19] At a minimum, the transportation system for hydrogen gas in the Los Angeles basin is moving forward before the CPUC, and its buildout is a reasonably foreseeable consequence of this Scattergood modernization project and similar hydrogen retrofits at LADWP's other generation facilities in the Los Angeles basin. Although the Angeles Link Project has not yet undergone CEQA review regarding potentially significant environmental impacts, the pipeline could span approximately 450 miles through urban and rural portions of the state.[20] Based on its potential size alone, Angeles Link will undoubtedly "change the scope or nature" of the initial Scattergood project and amplify its environmental effects. Going further, the broader hydrogen system contemplated by Angeles Link would have no reason to be built in a vacuum, unless and until the lead agency knew there was a guaranteed purchaser of hydrogen gas—the ultimate product of the infrastructure system. While the Angeles Link hydrogen system may still be in the planning

P95-7
(cont'd)

[17] SoCalGas, Angeles Link Phase 1 Studies Consolidated Report (2022), p. 3, *available at* https://www.socalgas.com/sites/default/files/alproject/Angeles-Link-Phase-1-Consolidated-Report.pdf.
[18] *See id.* at 4 (noting the report consolidates Phase 1 studies about the proposed Angeles Link project).
[19] A.24-12-XXX (Angeles Link) Application of Southern California Gas Company (U 904 G) for Authorization to Implement Revenue Requirement for Costs to Enable Commencement of Phase 2 Activities for Angeles Link (Dec. 20, 2024), p. 5, *available at* https://www.socalgas.com/sites/default/files/alproject/phase2/A.24-12-XXX_SoCalGasApplicationALP2_PDFA_2024.12.20.pdf.
[20] *Id.* at 44 (noting that alternative pipeline routes considered "traversed a total of approximately 1,300 miles, providing a wide range of options within which to narrow down the preferred route for the Angeles Link system, which is anticipated to be approximately 450 miles").

stages, an agency cannot defeat the prohibition on piecemealing embodied by CEQA by breaking off a necessary part of a project, deferring detailed planning of that part and then claiming that the part is too inchoate.[21]

Third, LADWP is intimately involved not only in the retrofits at its own facilities, but *also* in the buildout of hydrogen infrastructure to supply hydrogen gas to those facilities. Amidst the sparse information contained in the DEIR about regional developments in hydrogen infrastructure, the DEIR lays out a complicated funding structure that, while doing little to clarify the actual progress and estimated timelines for bringing green hydrogen online, includes the admission that LADWP is a "funding sub-recipient" of the same entity that is managing the overall hydrogen transition in the state.[22] As such, the DEIR itself belies LADWP's claim that it is not involved in the regional development of hydrogen infrastructure and should not be responsible for assessing environmental impacts related to the hydrogen system buildout.

P95-7
(cont'd)

Despite the Scattergood modernization project's obvious dependency on the existence of a yet-to-be-built hydrogen system to supply hydrogen gas to the facility, the DEIR fails to account for the cumulative impacts from the associated hydrogen infrastructure. The nearest the DEIR comes to directly considering such impacts is discussing whether "the project [would] create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment."[23] In this context, LADWP considers whether cumulatively significant impacts could arise from the risk that hazardous materials, namely hydrogen, could be released by the new hydrogen infrastructure that must be built.

This discussion provides LADWP's clearest articulation of the tangled reasoning it employed to find that it does not need to consider the cumulative impacts of associated hydrogen

[21] *See* DEIR at 4.4-9 ("It is acknowledged that a green hydrogen supply system outside the boundaries of Scattergood would be required to support the proposed project. However, … the details of this hydrogen system in terms of production, delivery, and storage infrastructure are currently unknown.").
[22] DEIR at 3-3 ("[I]n October 2023, California was chosen by the U.S. Department of Energy as one of seven participants in the $7-billion Regional Clean Hydrogen Hub program. The California Hydrogen Hub is being managed by the Alliance for Renewable Clean Hydrogen Energy Systems, a statewide public-private partnership focused on accelerating hydrogen's role in statewide decarbonization efforts. In July 2024, the Alliance for Renewable Clean Hydrogen Energy Systems and U.S. Department of Energy officially announced a Cooperative Agreement to build and expand clean energy infrastructure across California, including up to $1.2 billion from the U.S. Department of Energy and $11.4 billion in public and private matching funds. The Alliance for Renewable Clean Hydrogen Energy Systems selected LADWP as one of the federal funding sub-recipients.").
[23] *Id.* at 4.4-7.

production and transport infrastructure. LADWP acknowledges there is no regional hydrogen system and that one "would be required to support the proposed project."[24] But then LADWP reasons, first, that the details of this infrastructure is "unknown" and, second, that "within the context of a region-wide hydrogen supply system, the proposed project's incremental use of hydrogen at the Scattergood site would not be anticipated to make a cumulatively considerable contribution to wider combined effect with the regional supply system."[25]

P95-7 (cont'd)

In other words, LADWP claims that for this project, which will *necessitate* a regional supply system, the department should not have to consider the impacts of that larger system because, once the regional system is built, this project will only make an "incremental use of hydrogen" that will look inconsiderable when placed within the context of the regional system. While only articulated in the context of hazardous waste risks, this circular reasoning illustrates the illogical decision to exclude *all potential impacts* of the broader regional system. The Scattergood project cannot function as designed until a large regional support system is built, a fact which LADWP readily admits in the DEIR.[26]

For these reasons, failing to analyze the impacts of sourcing, producing, storing, and transporting hydrogen gas now, as part of the DEIR for the Project, constitutes illegal piecemealing of foreseeable cumulative impacts under CEQA.

4. The DEIR fails to consider the impacts if a reliable supply of green hydrogen does not materialize

Before claiming the Project is hydrogen-ready, the DEIR must thoroughly evaluate the availability of hydrogen supply as it directly informs capacity factor and finite reliability of the project. A 2024 Institute for Energy Economics and Financial Analysis ("IEEFA") report found that sufficient clean hydrogen is unlikely to be readily available within the next decade.[27] Therefore, claims of hydrogen turbine readiness appear inflated. Notably, "commercial turbines capable of operating with natural gas/hydrogen blends of up to 100% hydrogen are currently

P95-8

[24] *Id.* at 4.4-9.
[25] *Id.*
[26] *Id.* ("It is acknowledged that a green hydrogen supply system outside the boundaries of Scattergood would be required to support the proposed project.").
[27] IEEFA, *Hydrogen: Not a Solution for Gas-Fired Turbines* (Aug. 2024), *available at* https://ieefa.org/sites/default/files/2024-07/Hydrogen%20Not%20a%20Solution%20for%20Gas%20Fired%20Turbines_August%202024.pdf ("Hydrogen: Not a Solution"), p. 8.

confined to demonstration projects or planned projects with co-located green hydrogen production and storage."[28] According to the IEEFA report, calling projects "hydrogen-ready" or "hydrogen-capable" effectively obscures the reality that utilities and project developers are actually constructing new power plants and turbines that will "operate almost completely, if not completely, using methane."[29]

Recent hydrogen projects have failed to materialize and project timelines are often delayed due to supply constraints: per BloombergNEF in May 2024, only 30 percent of announced supply for 2030 is "likely to be built."[30] BloombergNEF further estimates that globally, governments are likely to miss hydrogen demand goals for 2030 by nearly two-thirds.[31] Indeed, CARB's Scoping Plan indicates that California will need to grow its hydrogen supply by 1,700x to meet hydrogen demand in non-power sectors.[32] At the very least, this portends considerable fuel insecurity. At worst, it indicates that hydrogen projects will fall back on methane use or SMR hydrogen to contain costs or simply obtain any fuel supply. This uncertainty has concrete effects on the environmental impacts of the Scattergood project and should have been addressed in the DEIR. For example, if Scattergood Units 1 and 2 must run on 100 percent methane due to hydrogen supply constraints, the Project will likely have GHG impacts rather than GHG-reduction benefits. P95-8 (cont'd)

Given the uncertainties associated with the timely ability to procure a sufficient supply of green hydrogen to meet LADWP's objectives articulated in the SLTRP,[33] the DEIR must be revised to account for the foreseeable environmental impacts—on greenhouse gas emissions, human health, and others—of operation without a reliable green hydrogen supply. This analysis should be included not merely as a separate alternative, but as a foreseeable possible outcome under *any* alternative that contemplates the conversion of Scattergood to a combustion profile that relies upon hydrogen gas to any degree.

[28] PSE Healthy Energy Report at 24.
[29] *Hydrogen: Not a Solution*, *supra* note 27, p. 4.
[30] BloombergNEF. (2024, May 14). Hydrogen Supply Outlook 2024: A Reality Check, *available at* https://about.bnef.com/blog/hydrogen-supply-outlook-2024-a-reality-check/. Accessed Feb 11, 2025.
[31] *Id.*
[32] PSE Healthy Energy Report at 27.
[33] SLTRP at 21.

5. The DEIR should be a programmatic DEIR encompassing LADWP's plans for other basin-wide fuel replacement and generation projects

Because the SLTRP contemplates similar hydrogen conversion projects at LADWP's four generation plants[34] to generate electricity, all of which would rely on the same system of hydrogen infrastructure to supply the new fuel source, LADWP's plans for an in-basin hydrogen system as outlined in the SLTRP warrant a programmatic DEIR. The CEQA Guidelines authorize the preparation of a programmatic DEIR for "a series of actions that can be characterized as one large project" if the actions are related through any of the following bases: P95-9

(1) Geographically,

(2) As logical parts in the chain of contemplated actions,

(3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or

As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

(CEQA Guidelines § 15168(a).)

At least three of these criteria for a programmatic DEIR are satisfied for LADWP's generation conversion projects for hydrogen combustion identified under the SLTRP. The four contemplated hydrogen combustion projects are in the same geographic area—the Los Angeles basin—and specifically all occur within LADWP's electricity generation system (rather than being generation projects outside of the region but that would provide new electricity to the City of Los Angeles through long-distance transmission). The four conversion projects are logical parts of the chain of similar programmatic actions contemplated under the SLTRP, which is a plan governing LADWP's future generation operations and enhancement projects. Hydrogen projects at different generation facilities would be undertaken through similar regulatory authority and would have similar environmental impacts, both to nearby communities through changes in emissions and to region-wide water use and infrastructure associated with hydrogen gas production, transportation, and procurement. Taken as a whole, from LADWP's own

[34] SLTRP at ES 22, 1-21.

planning documents, the Scattergood project is merely the first of four interconnected projects that are proposed as part of a unified plan to reach a common objective.

A programmatic DEIR for LADWP's hydrogen combustion and modernization program throughout the LA basin is not only prudent, but also necessary under the CEQA Guidelines. Programmatic DEIRs allow for "more exhaustive consideration of effects and alternatives" for the entire program of actions than would be practical to consider in a project-specific DEIR, properly consider cumulative impacts, avoid duplicative analysis of similar impacts across the individual projects, and allow a streamlined approach for considering broader project alternatives and mitigation measures. (CEQA Guidelines § 15168(b).) Programmatic DEIRs can also streamline subsequent environmental review for individual projects within the program through tiering to the program DEIR. (CEQA Guidelines § 15168(c).) In this case, the failure to utilize a programmatic DEIR for the Scattergood project has resulted in significant piecemealing of reasonably foreseeable and unavoidable impacts, contrary to the intent and mandate of CEQA.

P95-9 (cont'd)

To remedy the clear legal defects regarding piecemealing discussed above, **the DEIR must be recirculated as a programmatic DEIR of the planned modernization efforts throughout all of LADWP's infrastructure to support hydrogen combustion for LADWP's entire basin-wide electricity system, consistent with the SLTRP**. Tiering the environmental review in this manner will ensure that all cumulative impacts of the modernization at Scattergood and the other three generation facilities will be considered together, along with any other system-wide infrastructure improvements that will be necessary to accommodate such modernization projects. Then, individual pieces of the overall SLTRP hydrogen combustion and modernization efforts can be conducted in phases, with each project analyzing project-specific and site-specific environmental impacts not already considered in the programmatic review. *See Yerba Buena Neighborhood Consortium, LLC v. Regents of Univ. of Cal.*, 95 Cal. App. 5th 779, 789-90 (2023) ("A program DEIR is generally prepared for a series of actions that can together be characterized as one large project, and it may be used before specific components of a project are ready for approval"). With the Scattergood DEIR, LADWP has attempted to piecemeal its environmental impact analysis to avoid cumulative consideration of the overall program, thereby violating CEQA's prohibition against piecemealing.

Even if LADWP's commitment to convert Scattergood, Haynes, Harbor, and Valley Generating Stations to combust hydrogen does not constitute a single unified project (which we

believe it does), at minimum, the cumulative impacts of all planned conversions must be fully considered and analyzed in the DEIR for Scattergood. (*See Communities for a Better Environment v. City of Richmond*, 184 Cal. App. 4th 70, 99 (2010) (noting in rejecting piecemealing claim that, although pipeline was not the same project as refinery upgrade, "pipeline's cumulative contribution to the Project's environmental impacts was included in the DEIR"); CEQA Guidelines § 15165 ("Where one project is one of several similar projects of a public agency, but is not deemed a part of a larger undertaking or a larger project, the agency . . . shall in either case comment upon the cumulative effect.").) The DEIR's failure to consider the cumulative impacts from these conversions, at minimum, violates CEQA and must be rectified in a recirculated DEIR, to allow for public comment on the cumulative impacts identified. P95-9 (cont'd)

In addition to the clear need to evaluate the cumulative impacts resulting from LADWP's own plans to retrofit its Harbor, Haynes, and Valley Generating Stations for hydrogen combustion, it is critical that LADWP fully evaluate the cumulative impacts from building out the necessary hydrogen infrastructure. Below we identify three critical categories of environmental impacts related to hydrogen infrastructure needs that must be fully evaluated in a programmatic DEIR or recirculated DEIR: (1) hydrogen sourcing and production; (2) hydrogen transportation and storage; and (3) new water infrastructure related to hydrogen production.

a) The programmatic DEIR or recirculated DEIR must analyze cumulative impacts of hydrogen sourcing and production

The programmatic DEIR or recirculated DEIR must analyze the environmental impacts of green hydrogen sourcing and production, including impacts related to energy use for water extraction, purification, and conveyance. Obtaining purified water is necessary for green hydrogen production through the electrolysis process, but sourcing purified water is not discussed or analyzed in the DEIR. The water purification process for hydrogen production is likely to have a variety of significant environmental impacts depending on which water sources are ultimately used. P95-10

Electrolysis, the process to convert purified water into oxygen and hydrogen gas, can take between 9 and 30 kilograms of water per kilogram of hydrogen produced.[35] Both fresh water and

[35] Elena Krieger, Bethany Kwoka, & Boris Lukanov, *Green Hydrogen Proposals Across California: An assessment of opportunities and challenges for using hydrogen to meet state climate goals* at 49, PSE Healthy Energy (May 21,

recycled wastewater require several filtration steps before electrolysis can take place.[36] The Sierra Club and CEJA have calculated that "creating sufficient electrolytic hydrogen to power one facility like Los Angeles Department of Water and Power's Scattergood Generating Station for just 1,500 hours per year would take hundreds of thousands of gallons of water per day and require the build-out of between 900 and 3,389 MW of renewable generation resources."[37] Furthermore, electrolysis could result in millions of gallons of potentially toxic wastewater concentrate (also referred to as "brine") which will have to be re-treated or managed, creating additional resource demands and groundwater contamination risks for communities near stored wastewater concentrate.[38] If this brine is discharged into the ocean as a byproduct of the electrolysis process, it may have significant environmental impacts that must be analyzed in the DEIR. In addition, there will undoubtedly be significant environmental impacts associated with the construction of an electrolysis facility that could produce reliable quantities of hydrogen gas for use at Scattergood and other facilities in the Los Angeles basin, necessitating considerations of the environmental impacts of such land use at the site it is proposed.

P95-10
(cont'd)

This water use, energy use, and waste creation resulting from the electrolysis process are reasonably foreseeable (and in fact, practically necessary) consequences associated with any pathway to produce green hydrogen that will be combusted at the Scattergood facility. Yet the DEIR is silent about these impacts in any of the discussed alternatives scenarios, which indicates LADWP has not considered these impacts in its analysis whatsoever, in violation of CEQA.

Moreover, from a water supply standpoint, use of clean surface or groundwater as a source for purified water that could be converted into hydrogen gas could further jeopardize water supplies in water-strapped communities across Southern California, particularly following the devastating wildfires in the region that necessitated significant water resources for fire

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2024), *available at* https://www.PSE Healthy Energyalthyenergy.org/wp-content/uploads/2024/05/Green-Hydrogen-Proposals-Across-California.pdf.

[36] Mostafa El-Shafie, *Hydrogen production by water electrolysis technologies: A review* at 3, Results in Engineering, Vol. 20 (Dec. 2023), *available at* https://doi.org/10.1016/j.rineng.2023.101426.

[37] A.22-02-007 (Angeles Link) Opening Brief of Sierra Club and California Environmental Justice Alliance (July 29, 2022), p. 2, *available at* https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M496/K341/496341723.PDF (citing GE Gas Power, Hydrogen and CO2 Emissions Calculator, *available at* https://www.ge.com/gas-power/future-of-energy/hydrogen-fueled-gas-turbines/hydrogen-calculator).

[38] Roya Mehrkhah, et al., *Prospective performance assessment of enhanced electrochemical oxidation technology: Insights into fundamentals and influencing factors for reducing energy requirements in industrial wastewater treatment*, p. 1, Environmental Technology & Innovation (2023), *available at* https://doi.org/10.1016/j.eti.2023.103336.

containment and have led to calls for water systems reform.[39] Similarly, reliance on recycled wastewater for hydrogen production would demand energy-intensive purification efforts, and the recycled water for hydrogen production will not otherwise be available for other potable or non-potable uses, as many local agencies—including LADWP—intend.[40] But the DEIR fails to discuss entirely water supply implications for the production of hydrogen gas that will be combusted at Scattergood, completely ignoring critical and unavoidable environmental impacts of the proposed project. These impacts must be studied and explained further in a recirculated DEIR.

P95-10 (cont'd)

b) The programmatic DEIR or recirculated DEIR must analyze cumulative impacts from hydrogen storage and transportation, including energy use

The programmatic DEIR or recirculated DEIR must consider the cumulative impacts from storing and transporting hydrogen gas to the Scattergood facility during necessary combustion hours. GHG emissions will be significantly impacted by energy storage and transportation. Leakage rates of hydrogen from the full value chain of hydrogen (production, transportation, storage) range up to 20 percent.[41] Because hydrogen, while not itself a GHG, has a significant warming effect, a 10 percent leakage rate could eliminate entirely the climate benefits of replacing fossil gas with hydrogen. [42] Moreover, blends of hydrogen with fossil gas, as planned in the DEIR, have been demonstrated to leak at higher rates than gas alone.[43] In the

P95-11

[39] *See, e.g.*, Ian James, Matt Hamilton & Ruben Vives, Why Hydrants Ran Dry as Firefighters Battled California's Deadly Fires, Los Angeles Times (Jan. 9, 2025), *available at* https://www.latimes.com/environment/story/2025-01-09/california-fires-water-supply-problems.

[40] *See, e.g.*, LADWP, Pure Water Los Angeles, *available at* https://www.ladwp.com/who-we-are/water-system/sources-supply/pure-water-los-angeles (last visited Feb. 6, 2025) (noting the intent to use purified wastewater to "replenish the city's groundwater basins" and to "integrate the purified recycled water with the drinking water system," without mentioning the use of recycled water for energy generation or green hydrogen production); Metropolitan Water Dist., Fact Sheet: Pure Water Southern California Program Benefits (Jan. 2024), *available at* https://d1q0afiq12ywwq.cloudfront.net/media/wrfpnkwl/purewater_programbenefits_01242024-web.pdf (stating an intent to use 150 million gallons daily of recycled wastewater to "replenish groundwater basins, be used by industries and provide additional supplies for the region's drinking water treatment and delivery systems"); Los Angeles County Water Plan (2023), *available at* https://lacountywaterplan.org/Home (generally discussing the need for developing recycled water supplies to offset imported water, restore groundwater basins, and incorporate into drinking water supplies, without mentioning use for energy generation or green hydrogen production).

[41] PSE Healthy Energy Report at 25-26.

[42] *Id.*

[43] *Id.*

DEIR's sparse section on GHG impacts, transportation and storage-related leakage is not addressed at all.[44]

While there will be significant GHG emissions associated with the purification and electrolysis processes for hydrogen gas production, there will also be substantial energy use and GHG emissions associated with the transportation of water and hydrogen gas to and from facilities where purification and/or electrolysis occurs—along with the energy use associated with transporting hydrogen gas to the Scattergood facility for combustion. The energy use associated with conveying water is among the highest categories of energy use in the entire state of California—up to 10 percent of the entire state's GHG emissions are associated with the water system.[45] Yet the DEIR does not analyze how the Scattergood project will add to that energy demand or the associated environmental impacts of greater energy use and GHG emissions required to create energy from hydrogen. P95-11 (cont'd)

Hydrogen gas will also need to be stored properly following its production, whether at the Scattergood facility or at another location for importing, and the DEIR says nothing about the facility needs, construction requirements, energy use, or other environmental impacts of such storage facilities. Instead, the DEIR leaves "the installation of the infrastructure for the production, delivery, and storage of hydrogen" for a separate environmental review "when the necessary information to support an adequate analysis of potential impacts is available."[46]

c) The programmatic DEIR or recirculated DEIR must analyze cumulative impacts of new water infrastructure associated with hydrogen production

Finally, new water infrastructure and its associated environmental impacts also must be evaluated as part of a programmatic DEIR or a recirculated Scattergood DEIR, to the extent it would be necessary to convey large quantities of water throughout the Los Angeles basin for purification and/or hydrogen gas production. To illustrate, if water used to produce hydrogen gas were to be either recycled and/or treated at the Hyperion Water Treatment Plant adjacent to the Scattergood facility, such recycling and/or treatment would require the dramatic expansion of water treatment or electrolysis infrastructure, very likely beyond current plans under LADWP's Pure Water Los Angeles program, and would necessitate the installation of an entirely new P95-12

[44] DEIR at 4.3-1 - 4.3-3.
[45] *See* Public Policy Inst. of Cal., Energy & Water (2018), p. 1, *available at* https://www.ppic.org/wp-content/uploads/californias-water-energy-and-water-november-2018.pdf.
[46] DEIR at 1-3.

pipeline to transmit the water or hydrogen gas to Scattergood. Alternatively, if large sources of otherwise potable water will be required for electrolysis storage facilities will need to be upgraded to accommodate greater volumes of water at certain times of the year.

From the DEIR, it is not clear that LADWP intends to analyze the environmental impacts of expanding water infrastructure during the undefined future environmental review of the "supply of green hydrogen to Scattergood."[47] Thus, there is a significant likelihood that such impacts of expanded water infrastructure will evade meaningful review. Accordingly, the failure to consider, as part of the Scattergood project, necessary expansions of water infrastructure associated with hydrogen gas production constitutes another example of improper piecemealing of foreseeable cumulative impacts under CEQA. This error must be rectified in a recirculated DEIR.

P95-12 (cont'd)

In summary, the Scattergood DEIR's failure to consider any cumulative environmental impacts associated with the proposed hydrogen retrofits at the other three LADWP generation facilities, or cumulative impacts from green hydrogen production, transportation, and storage (including the transportation and storage of water used for hydrogen production), violates CEQA's mandate to consider all reasonably foreseeable and unavoidable cumulative impacts of the project. The DEIR must be recirculated for further public comments, either as a programmatic DEIR or as a revised DEIR, to include a robust assessment of the cumulative impacts associated with the buildout of necessary hydrogen infrastructure to support the Scattergood project's objectives for hydrogen gas combustion.

B. The DEIR's Project Description Is Insufficient Because It Fails to Identify a Finite Reliability Objective and Fails to Accurately Establish the Project's Capacity Factor.

The DEIR offers insufficiently vague project objectives and expected performance for the Project where clear and specific articulations of the project description and project objectives are required. Without an accurate description of this project and its objectives, CEQA's purpose of public disclosure and informed environmental decision-making is made impossible.

P95-13

A core element of an DEIR's project description is its overview of the project's technical and environmental characteristics. CEQA Guidelines § 15124(c). CEQA requires that any DEIR include an accurate and finite project description as a prerequisite to be found legally sufficient.

[47] *Id.* at 3-3.

(*County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d; 14 Cal. Code Regs § 15124.) Without an accurate description of this project's objective and how it would meet it, CEQA's objective of public disclosure and informed environmental decision-making is impossible. Courts have repeatedly stated that an accurate and stable project description is necessary so that the lead agency and the public have enough information to "ascertain the project's environmentally significant effects, assess ways of mitigating them, and consider project alternatives." (*Sierra Club v. City of Orange*, 163 Cal. App. 4th 523, 533 (2008); *Save Round Valley Alliance v. County of Inyo*, 157 Cal. App. 4th 1437, 1448 (2007).)

P95-13 (cont'd)

1. The DEIR fails to identify a finite reliability objective for the project

The DEIR's project description states that an objective of this project is to maintain grid reliability during peak demand periods and under emergency circumstances,[48] but fails to identify a clear reliability standard that the project or any alternatives would be required to meet.

CEQA requires that the DEIR specify a finite reliability need because that is the metric against which the project and potential alternatives must be measured. As noted above, DEIR project descriptions must include a clear overview of the project and its objectives. While CEQA requires that DEIRs be prepared in plain, understandable language, this requirement is balanced against the need to provide enough information for decision-makers and the public to understand the full scope of the project. (*Dry Creek Citizens Coalition v. County of Tulare*, 70 Cal. App. 4th 20, 28 (1990).)

P95-14

Here, the DEIR hints that reliability needs justify the Scattergood Modernization Project, but the document is not specific about the actual reliability standard that the Project must meet. LADWP's system reliability standards are set by the Western Electricity Coordinating Council ("WECC") and the North American Electric Reliability Corporation ("NERC"), but these reliability standards apply to LADWP's reliability performance at large–not specifically at the project level. The DEIR states that the project will be used "primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the in-basin units would be used during relatively short-term periods when renewable generation sources and/or transmission assets

[48] DEIR at 1-1.

become unavailable due to emergency circumstances."[49] This is a plain language description of general reliability needs but does not satisfy the technical characteristic of need required by CEQA regulations. (*See* 14 Cal. Code Regs. § 15124(c) ("A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities.").)

CEQA caselaw requires LADWP to state a clear project description to explain the technical project objectives in this DEIR so that the public can understand the project and consider alternatives. *(See Sierra Club v. City of Orange*, 163 Cal. App. 4th*.)* A clear description of the Project's reliability objectives is required to understand which alternatives should be considered alongside the Project. For example, the reliability objective could be expressed as a set of grid constraints, demand projection, and duration that the project is required to meet. Defining reliability needs in finite terms is necessary to determine whether the same need could be fulfilled with in-basin local solar and storage. The reliability objectives must be clearly defined to ensure that LADWP has not prematurely removed less environmentally impactful alternatives from consideration. Without a clear, technical rubric for the project's reliability objectives, the DEIR leaves open the possibility that LADWP could arbitrarily exclude reasonable alternatives.

P95-14 (cont'd)

Because the DEIR fails to establish a finite reliability objective within the project description, the DEIR fails to comply with CEQA.

2. The DEIR fails to define the project's expected capacity factor

The DEIR does not include an accurate or finite description of the Project's expected capacity factor, meaning how often LADWP expects to operate the Project.[50] The projected frequency of the Project's use is directly tied to the Project's likely pollutant emissions and resulting environmental and public health impacts. The DEIR's failure to project a finite capacity factor for the project constitutes a fatal flaw in the DEIR's sufficiency. This failure to identify a capacity factor is particularly worrisome considering LADWP's permit applications to SCAQMD, which state that the utility expects the plant to be available for 24/7/365 operations.[51]

P95-15

[49] DEIR at 1-3.
[50] A power plant's expected use is commonly expressed as a capacity factor, meaning a ratio expressing the actual electrical energy output over a given period of time compared to the theoretical maximum output.
[51] LA City, DWP Scattergood Generating Station Form 400-A Application Form for Permit or Plan Approval, Form 400-E-12 Gas Turbine, pp. 7, 29, 47 [attached as **Exhibit 2**].

These applications also incorporate high numbers of startups and shutdowns at Scattergood, at almost 2 per day.[52] Without clarity from LADWP, this DEIR and the SCAQMD applications indicate a wide range of capacity factors and corresponding wide range of environmental impacts.

A legally sufficient DEIR project description needs to include an accurate and finite description of how and when the project will be used to be legally sufficient. (*See County of Inyo v. City of Los Angeles*, 71 Cal. App. 3d at 197-99.)

The planned operation of the Project is critically important to understanding for an accurate comparison of pollutant emissions against the project baseline because emissions levels will vary with the project's capacity factor and the number of startups and shutdowns. The DEIR describes pollutant emissions rates but fails to provide sufficient detail to determine the number of hours that emissions will likely occur. The DEIR states that "LADWP's in-basin generation units, including the proposed project, are anticipated to be utilized less frequently than under current conditions, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity."[53] However, the DEIR includes no expression of recent historical performance by the current Scattergood power plant, much less the specific Units 1 & 2 that would be replaced by the Project.

P95-15 (cont'd)

Furthermore, LADWP has stated in separate venues that modeling efforts suggest that the Project could operate far more frequently than described in the DEIR. At an LADWP advisory group meeting on long-term resource planning on December 5, 2024, one energy consultant described that his model projected relatively high capacity factors for LADWP's four planned hydrogen power plants and that the model had to be manually adjusted to a lower capacity factor to reflect the utility's preferred lower usage.[54] In its application to the South Coast Air Quality Management District ("SCAQMD"), LADWP states that it plans to operate the Project's units 24 hours a day, 365 days per year with 792 startups and shutdowns per year.[55] So, which will it be—a capacity factor that is high or low? The DEIR does not tell the reader.

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[52] *Id.*
[53] DEIR at 2-10.
[54] LA 100 Advisory Group Meeting (Dec. 5, 2024), *available at* https://www.ladwp.com/sites/default/files/2024-12/LA100%20Plan%20AG%206%20SLTRP%20and%20DSA%20Final.pdf.
[55] LA City, DWP Scattergood Generating Station Form 400-A Application Form for Permit or Plan Approval, Form 400-E-12 Gas Turbine, pp. 15, 39, 54 [**Exhibit 2**].

The likely number of startups and shutdowns is critical because gas plants release their maximum emissions during plant startups and shutdowns when pollution controls are either not operational or ineffective.[56] As an example, the Sunrise Power Plant's Unit 1 has a "median NOx emissions rate of 9.14 pounds per hour while its maximum hourly NOx emissions" during startup and shutdown "was almost 229 pounds per hour - a factor of 25 times greater."[57] The DEIR includes no estimate of the annual number of startups and shutdowns for the Project, suggesting that a critically important estimate of associated emissions is omitted. P95-15 (cont'd)

The DEIR needs to be more specific to illustrate LADWP's planned usage of this plant. Rather than claiming that LADWP expects the Project's utilization to be "less frequent" than current Scattergood utilization, the DEIR needs to express a finite numerical range of the Project's capacity factor and number of startups and shutdowns. Stakeholders do not and cannot expect the expectations to be perfectly accurate, but the DEIR's project description must be more specifically described than its current version. The DEIR's "bona fide subject" must be "[t]he defined project and not some different project." (*Concerned Citizens of Costa Mesa v. 32nd Dist. Agric. Assn*., 42 Cal. 3d 929, 938 (1986).) Without a clear, finite expected use of the Project, the DEIR's project description fails to comply with CEQA.

3. The DEIR fails to identify and define the green hydrogen system necessary to build and operate the project

The failure of the DEIR to define the Project in connection with its associated hydrogen infrastructure obscures many potentially significant impacts that would arise from hydrogen energy. While the DEIR claims that the Project will be supplied by a "green hydrogen system," there is no description in the DEIR of the hydrogen system that will be built. In the first place, the DEIR fails to define what constitutes *green* hydrogen. LADWP should clarify the production technologies that it would consider to be "green." What's more, without any assurance that the system will actually supply green hydrogen, LADWP should consider the possibility that other sources of hydrogen production will be used, or that natural gas or a fuel mixture will be used indefinitely. The direct, indirect, and cumulative impacts of these scenarios must be included in the DEIR. P95-16

[56] Regenerate California Campaign, "The Notorious Nine: Gas Plant Pollution in Environmental Justice Communities" (Dec. 10, 2024), p. 10, *available at* http://ceja.org/wp-content/uploads/2024/12/Regenerate-NOx-Emissions-Full-Report.pdf [Referred to hereinafter as "Regenerate NOx Report"; attached as **Exhibit 3**].
[57] *Id.*

It strains credulity to imagine that LADWP knows so little about the buildout of hydrogen infrastructure that it cannot analyze that system at all and yet can also be confident that the system will exclusively supply green hydrogen. Both things cannot be true. There is an array of methods by which hydrogen fuel can be generated.[58] The DEIR should consider the possibility that, once the infrastructure for transport, storage, and utilization of hydrogen has been built, that same infrastructure could be used for, and indeed market forces could begin to incentivize, dirtier forms of hydrogen.[59]

For instance, as the community groups commented at the IS/NOP phase, LADWP should analyze the impact of SMR/fossil-based steam production.[60] In the DEIR, LADWP ignored that request. There is no discussion or response to the observation that "nearly all hydrogen used in California today is produced through" the SMR method. The DEIR assumes without justification that the fuel options are either green hydrogen, natural gas or a mixture of the two, and not hydrogen from any other source. P95-16 (cont'd)

In the revised DEIR, LADWP should describe the necessary infrastructure that will develop and deliver green hydrogen fuel to operate the project so that LADWP and stakeholders can consider the reasonably likely impacts of the entire project. Given LADWP's avowed uncertainty surrounding what types of hydrogen facilities may be built, this is necessary to ensure that the revised DEIR captures impacts that would result from either fueling the project with exclusively methane or less clean forms of hydrogen generation.

Even if a source for green hydrogen can be described in the project description and ultimately secured by LADWP, another result of piecemealing the analysis of hydrogen production is that the DEIR does not consider the possibly significant environmental impacts of green hydrogen. As stated above, there is uncertainty over how "green hydrogen" is defined.[61] Without clarifying how the hydrogen would be produced, it is impossible to know what its

[58] Dash et al., *A Brief Review of Hydrogen Production Methods and Their Challenges*, ENERGIES, Jan. 2023.
[59] Combustion of even green hydrogen "is anything but emissions free." Seth Mullendore et al., *Hydrogen Hype in the Air*, CLEAN ENERGY GROUP 2 (Dec. 14, 2020).
[60] DEIR, *supra* note 2 at Appendix A, 119; Cho et al., *Environmental Impact Assessment of Hydrogen Production via Steam Methane Reforming Based on Emissions Data*, 8 ENERGY REP. 13585 (2022).
[61] This uncertainty is in evidence in the widespread lack of hydrogen certification guarantees. INTERNATIONAL RENEWABLE ENERGY AGENCY, GREEN HYDROGEN, A GUIDE TO POLICY MAKING 29 (2020). The City's own planning document, LA100, considers possible overlap between biomass and green hydrogen. LOS ANGELES DEP'T OF WATER & POWER, LA100—THE LOS ANGELES 100% RENEWABLE ENERGY STUDY Ch. 6, 59 (2021).

impacts would be. Recent rules seem to allow the subsidies intended for green hydrogen to go towards production through methane or nuclear power.[62] The revised DEIR omits impacts pertaining to the use of green hydrogen sourced through these methods and contains no mitigation to reduce or eliminate impacts.

P95-16 (cont'd)

C. Inaccurate Baseline

1. The emissions baseline should be the hypothetical shutdown of Units 1 & 2 due to the upcoming OTC closure deadline in 2029

The DEIR uses an improper baseline to determine the projected changes in emissions associated with the Scattergood project. A project's existing environmental setting "will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (CEQA Guidelines § 15125(a)(1).) However, "where necessary to provide the most accurate picture practically possible of the project's impacts, a lead agency may define existing conditions by referencing . . . conditions expected when the project becomes operational." (*Id.*) CEQA expressly authorizes a lead agency to use a CEQA baseline of expected future conditions when the "use of existing conditions would be either misleading or without informative value to decision-makers and the public." (CEQA Guidelines § 15125(a)(2); *see also Neighbors for Smart Rail v. Expo. Metro Line Const. Auth.*, 57 Cal. 4th 439, 449 (2013) (lead agencies must "employ a realistic baseline that will give the public and decision makers the most accurate picture practically possible of the project's likely impacts").) In other words, "[p]rojected future conditions may be used as the sole baseline for impacts analysis if their use in place of measured existing conditions . . . is justified by unusual aspects of the project or the surrounding conditions." (*Neighbors for Smart Rail*, 57 Cal. 4th at 451.)

P95-17

Here, it is misleading and inaccurate for LADWP to assume a baseline of Scattergood's current plant operations for any impacts related to emissions from the plant following the modernization project, because Scattergood's once-through cooling ("OTC") Units 1 and 2 are required to cease operations completely by the end of 2029 under the State Water Board's OTC Policy.

Scattergood Units 1 and 2 currently rely on OTC for its natural gas combustion. OTC kills millions of fish, and fish and invertebrate larvae through impingement on screens and

[62] Brad Plumer, *After Fierce Lobbying, Treasury Sets Rules for Billions in Hydrogen Subsidies*, THE NEW YORK TIMES 3, Jan. 3, 2025.

entrainment of planktonic larvae in the cooling water.[63] To comply with Section 316(b) of the federal Clean Water Act, the State Water Resources Control Board ("State Board") developed OTC regulations for 19 coastal power plants, including Scattergood, that require a 93% reduction in the use of seawater for cooling purposes.[64] In response to the OTC policy, ten of the nineteen coastal OTC power plants have shut down, and some have opted to shift to closed cycle cooling processes by the deadlines previously imposed by the State Board. Scattergood has not updated its cooling processes in compliance with the OTC policy, but recently obtained an extension under the OTC regulations, as the State Board deferred its OTC cessation date to December 31, 2029 purportedly to "to support local grid reliability,"[65] notwithstanding the fact that the original analyses of OTC power plant harm to marine life have not been updated since 2010.

P95-17
(cont'd)

The DEIR acknowledges that the requirement for Scattergood to cease OTC operations is "separately required" by the State Board's OTC policy, meaning that shutdown of its OTC operations (Units 1 & 2) will be inevitable and should be treated as such in the environmental impacts analysis of the DEIR.[66] From these statements in the DEIR, it is clear that one of LADWP's primary objectives behind the modernization project is to provide an alternative cooling system to its current OTC operations given the imminent cessation by 2029 as required by the State Board.[67] Instead of confronting the OTC cessation as part of the environmental baseline analysis, however, LADWP entirely ignores the OTC policy's required closure of two generating units for purposes of determining the current baseline of environmental impacts. Instead, LADWP views the baseline of emissions from the Scattergood facility as the emissions from the plant under currently operating conditions using the OTC operations.

Using current plant operations as the environmental baseline is improper because it assumes that such operations would continue indefinitely in the future, even though the plant must cease operations in less than four years. It would be misleading to the public to assume that, absent the completion of the proposed modernization project, Scattergood would continue to rely

[63] *See* State Water Resources Control Board, Ocean Standards – CWA §316(b) Regulation, *available at* https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/ (last updated Apr. 4, 2024).
[64] *See id.*
[65] See State Water Resources Control Board, Resolution 2023-0025 (Aug. 15, 2023), pp. 4, 6, *available at* https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2023/rs2023-0025.pdf; *see also* DEIR at 3-2.
[66] DEIR at 3-3.
[67] While providing an alternative cooling method to OTC operations is not listed in Section 1.3.1 of the DEIR, which sets forth the project objectives, we believe it should be added to the list of project objectives given the imminent cessation of OTC operations by the end of 2029 as mandated by the State Board.

on OTC operations and natural gas combustion under similar conditions to its current operations. Such an outcome would depend on a hypothetical future extension of the current OTC cessation deadline of December 31, 2029, which is not contemplated by the State Board at this time. (*See Communities for a Better Environment v. South Coast Air Quality Management Dist.*, 48 Cal. 4th 310, 322 (2010) ("An approach using hypothetical allowable conditions as the baseline results in 'illusory' comparisons that 'can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts,' a result at direct odds with CEQA's intent.") (quoting *Environmental Planning Information Council v. County of El Dorado*, 131 Cal. App. 3d 350, 358 (1982)).)

P95-17
(cont'd)

Although LADWP asserts in the DEIR that the Scattergood modernization project is expected to be completed by the end of 2029,[68] we believe this ambitious timeline is unrealistic because of LADWP's own admissions that it is currently unknown whether and how LADWP will be able to procure green hydrogen gas for combustion at Scattergood. The hydrogen supply concerns raised above (in Sections II.A.3, II.A.4, II.A.5, and II.B.3) were left unaddressed by the DEIR and thus, we cannot assume that LADWP will be able to procure and deliver any hydrogen at all by 2029. To the contrary, the very fact that the DEIR includes a 100 percent methane vendor in its impact analysis demonstrates a lack of certainty that Scattergood can be retrofitted to burn hydrogen blends and procure hydrogen by 2029, in just four years. Unless (a) green hydrogen availability is proven on the market or (b) LADWP concedes that this Project is a gas repowering project rather than a "hydrogen modernization project," LADWP cannot mislead the public by assuming current emissions will continue beyond 2029.

Instead, the DEIR must treat the environmental baseline for plant operations as the complete cessation of any generation capacity whatsoever, due to the upcoming deadline to cease OTC operations and the DEIR's admitted lack of clarity regarding how to meet the project's goals to initiate hydrogen combustion by 2029. Assuming zero operations as the environmental baseline is the only way to "employ a realistic baseline that will give the public and decision makers the most accurate picture practically possible of the project's likely impacts" regarding air quality, energy use, and GHG emissions, among other potential environmental impacts not properly analyzed as discussed in this letter. (*Neighbors for Smart Rail*, 57 Cal. 4th at 449.)

[68] DEIR at 1-3 to 1-4.

2. The predicted nonattainment of federal air quality standards for NOx and PM2.5 within scattergood's air basin further indicates the baseline emissions for the project should be zero

As detailed in Section IV.A.1 below, the South Coast Air Basin is in *extreme* nonattainment for federal ozone and PM2.5 standards. The air basin has been in severe or extreme nonattainment for ozone for so long that the South Coast Air Quality Management District ("SCAQMD") has, as required by the Clean Air Act, developed a contingency plan to reduce these emissions and adopted a rule that levies considerable fees on major polluters of NOx and VOCs (precursors of ozone), including Scattergood. [According to South Coast's Rule 317.1 report for Title V facilities, Scattergood emitted NOx at a rate of 388.96 tons per year in 2024 and VOCs at a rate of 173.98 tons per year.[69] Under SCAQMD Rule 317.1, which levies fees based on EPA's Section 185 fee rates, LADWP will have to pay an *annual* Clean Air Act nonattainment fee for Scattergood NOx emissions of $12,476.67 per ton of NOx and VOC emissions, or $7.02 million, unless they reduce emissions by 20 percent or more.[70] This regulatory context indicates that the baseline for NOx and PM2.5 emissions should not be business as usual, as the DEIR attempts to make it. Appendix G of the CEQA Guidelines highlights the importance of federal air quality plans in determining the significance of air quality impacts, as two of the thresholds of significance are:

P95-18

> AQ-A: Conflict with or obstruct implementation of the applicable air quality plan;
>
> AQ-B: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. (*See* CEQA Guidelines, Appendix G, p. 5.)

Maintaining the same level of NOx and PM2.5 emissions in an air basin *federally mandated* to reduce those emissions and in severe nonattainment for those emissions (with the resultant public health impacts), rather than reducing NOx and PM2.5 levels, should constitute significant environmental impacts under CEQA. This is especially the case when a Project reverses the planned closure of two generating units at the plant and planned reduction in

[69] South Coast Air Quality Management District, "Rule 317.1 Affected Facilities List" (Oct. 11, 2024), *available at* https://www.aqmd.gov/docs/default-source/compliance/rule-317.1---applicability/rule-317-1-facilities-list.xlsx?sfvrsn=43f08361_10.

[70] U.S. Environmental Protection Agency, Clean Air Act Section 185 Fee Rates Effective for Calendar Year 2024 (Oct. 16, 2024), *available at* https://www.epa.gov/system/files/documents/2024-10/memorandum-sec-185-penalty-fees-for-year-2024_0.pdf.

emissions due to shutdown of those units. Therefore, the baseline against which Project emissions are evaluated should reflect the shutdown of Units 1 & 2 and the resultant movement towards compliance with federal air quality standards.

P95-18 (cont'd)

D. The DEIR's Piecemealing and Lack of Clear Project Description Most Heavily Impacts Environmental Justice Communities

1. The DEIR is insufficient because it does not discuss project impacts in heavily polluted environmental justice communities

The DEIR undermines the City of Los Angeles's environmental justice policy, and the DEIR does not discuss the project's impacts on environmental justice communities. From LADWP's own planning documents, it is clear that the Scattergood project is one of several power station retrofits that are proposed as part of a unified plan to reach a common objective.[71] The DEIR makes no mention of potential impacts at two of the stations that are located in disadvantaged communities ("DACs"): Harbor Generating Station and Valley Generating Station although DWP's 2022 SLTRP considers combusting hydrogen at the Harbor Generating Station in Wilmington as soon as 2032—just three years after hydrogen combustion would begin at Scattergood.[72] In fact, LADWP is currently slated to be one of SoCalGas's main future hydrogen customers.[73] Yet, the DEIR advances LADWP's systemic fuel conversion project without providing the public the opportunity to comment on environmental impacts at the Harbor and Valley facilities. Furthermore, it prevents the public and decisionmakers from analyzing sweeping environmental impacts that burning hydrogen in multiple LA City power plants will cause—including, but not limited to, localized air quality impacts disproportionately borne by DACs nearby the generation facilities; cumulative impacts to energy use, water use, and infrastructure development; and other impacts related to safety and leakage risks.

P95-19

State law defines "environmental justice" as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." (Gov. Code, § 65040.12, subd. (e).) While the CEQA statute does not explicitly cite "environmental justice," it does require a lead agency to consider whether a project's effects, while they might appear limited on their

[71] LADWP 2022 Power Strategic Long-Term Resource Plan at 3-17.
[72] *Id.*
[73] SoCalGas, Angeles Link Phase 1 Demand Study Final Report, 57 (Dec. 2024), *available at* https://www.socalgas.com/sites/default/files/alproject/Angeles-Link-Phase-1-Final-Demand-Study.pdf.

own, are "cumulatively considerable" and therefore significant. (Pub. Res. Code, § 21083, subd. (b)(3).) Where a community already experiences a high cumulative pollution burden, the "relevant question" is "whether any additional amount" of the proposed project's pollution "should be considered significant in light of the serious nature" of the existing pollutants in the community. (*Kings County Farm Bureau v. City of Hanford*, 221 Cal. App. 3d 692, 718, reh'g denied and opinion modified (July 20, 1990).)

P95-19 (cont'd)

The narrowing of the DEIR to its current state allows LADWP to begin a basin-wide electrical system change while ignoring how such a project impacts the City's environmental justice communities. Both Harbor and Valley Generating Stations are located in communities long exposed to energy system pollution. Like Scattergood, both Harbor and Valley are located within a quarter mile of homes. Unlike Scattergood, the two unstudied plants are located in some of the lowest income and most polluted neighborhoods in all of Los Angeles. As LADWP's LA100 Equity Strategies report correctly identifies, this difference reflects a legacy of policies which intentionally and incidentally created serious inequities amongst Angelenos concentrated along racial and socioeconomic lines.[74] As opposed to this deficient DEIR, a programmatic DEIR could address all of these system-wide impacts in compliance with CEQA, Government Code section 65040.12, subdivision (e), and LA City's environmental justice policy.[75]

2. The project site is in a "disadvantaged community" as designated by SB 535

The Scattergood Generation Station address in El Segundo straddles the border of SB 535 Disadvantaged Communities[76] census tracts (6037980028 and 6037980030), characterized by high pollution burden and low population count. Per CalEnviroScreen 4.0, the current version of the California Communities Environmental Health Screening Tool,[77] the Pollution Burden score for the immediately adjacent census tracts is 97th percentile for tracts 6037980028 and 6037980030. Tract 6037980028 includes all of Los Angeles International Airport. According to

[74] NREL, LA100 Equity Strategies: Chapter 2: Justice As Recognition, 1-2 (Nov. 2023), *available at* https://www.nrel.gov/docs/fy24osti/85960.pdf.
[75] Los Angeles City Planning, *Environmental Justice*, *available at* https://planning.lacity.gov/plans-policies/environmental-justice.
[76] *See* Cal. OEHHA, SB 535 Disadvantaged Communities, *available at* https://oehha.ca.gov/calenviroscreen/sb535 (last visited Feb. 10, 2025).
[77] *See* Cal. OEHHA, CalEnviroScreen 4.0, *available at* https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40 (May 1, 2023).

CalEPA's "Final Designation of Disadvantaged Communities Pursuant to Senate Bill 535" from May 2022, the agency formally designated the following as one category of geographic areas as a DAC: "Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores."[78] The justification for such designation is that: "It would be inconsistent with the spirit of SB 535 to exclude tracts that are in fact disadvantaged from a DAC designation solely on account of unreliable data,"[79] including low population count. Therefore, the Scattergood facility and this proposed project take place in a state designated DAC, regardless of its Grand Avenue address technically lying outside of the DAC tracts.

P95-19
(cont'd)

3. The draft DEIR inadequately addresses environmental justice concerns raised in prior comments

Various environmental justice ("EJ") concerns were raised in comments at the Initial Study/Notice of Preparation stage and were roundly ignored in the DEIR. In their comment letter, the community groups called on LADWP to take significant steps to ensure that this project does not create new impacts on environmental justice communities or reinforce existing impacts.[80] The DEIR shows no signs that LADWP took heed of any of these concerns in designing the current version of this project or in performing its analysis. In any subsequent or revised DEIR, LADWP must undertake such analysis from the ground up to promote a just transition for the city's overburdened communities. The current analysis shows no effort to accord weight to the voices of these impacted communities.

The DEIR fails to analyze the ripple effects of increased hydrogen gas demand and continued methane gas combustion on EJ communities. By diverting renewable solar- or wind-generated electricity toward electrolysis to produce hydrogen and increasing in-basin electricity demand, the Scattergood project could prolong polluting gas plant operations in communities already burdened by heavy truck traffic, refining, industrial manufacturing, and dirty hydrogen production. This would exacerbate human health impacts in these communities.

[78] "California Climate Investments to Benefit Disadvantaged Communities," *available at* https://calepa.ca.gov/envjustice/ghginvest/ (last visited Jan. 22, 2025).
[79] CalEPA, "Final Designation of Disadvantaged Communities Pursuant to Senate Bill 535" (May 2022), *available at* https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf.
[80] DEIR App'x A at 124.

Current plans claim that only green hydrogen will be used. However the analysis of the hydrogen infrastructure is piecemealed (see Section II.A, above) and LADWP claims to have no control over the construction of that hydrogen infrastructure.[81] Due to that supposed lack of control over hydrogen supply, environmentally overburdened communities have little assurance that LADWP will not end up relying on dirtier forms of delivered hydrogen to combust at Scattergood.[82] The revised EJ analysis should take this possibility into account and guard against the risk of non-green hydrogen supply. P95-19 (cont'd)

Lastly, as outlined in the community groups' comment letter, especially because blended hydrogen fuel can embrittle storage and transportation materials, the Project threatens the communities that surround Scattergood and those that live along pipeline routes with risks of hydrogen leaks and seepage.[83] The DEIR's blind spots regarding blended hydrogen pipelines, already leaking fossil gas facilities, and the handling of hydrogen feedstock for this project must be analyzed for more precise assessment of environmental justice impacts.[84]

4. Hydrogen safety standards

The revised DEIR should fully consider the safety risks of the hydrogen infrastructure that would need to be built to support the project.[85] While we are glad to see the DEIR includes some information about hydrogen safety standards[86], we are not confident that sufficient safety standards will be in place for a hydrogen system by the 2029 timeline contemplated by the Project, and therefore the risks posed by these activities will increase dramatically as pipeline infrastructure is built throughout the basin faster than safety needs can be understood and P95-20

[81] DEIR, *supra* note 1 at 3-3. "LADWP would not implement or operate this hydrogen infrastructure."
[82] This is especially true in light of the fact that the vast majority of hydrogen for sale in California is produced through fossil-based steam reformation of methane ("SMR"), which emits NOx, fine particulate matter, carbon monoxide, and volatile organic compounds. *Pinping Sun et al.*, Criteria Air Pollutants and Greenhouse Gas Emissions from Hydrogen Production in U.S. Steam Methane Reforming Facilities, 53 ENV'T SCI. & TECH. 7103 (2019).
[83] DEIR, Appendix A at 124; G. Gabetta et al*., Engineering Thoughts on Hydrogen Embrittlement*, 9 Procedia Structural Integrity 250, (2018); CALIFORNIA PUBLIC UTILITIES COMMISSION, HYDROGEN BLENDING IMPACTS STUDY (2022); ETN, HYDROGEN GAS TURBINES 10 (2020); ENERGY INNOVATION, BLENDING HYDROGEN WITH NATURAL GAS IS THE WRONG TOOL TO CUT BUILDING AND POWER SECTOR EMISSIONS (2022).
[84] Martin et al., *A Review of Challenges with Using the Natural Gas System for Hydrogen*, 12 ENERGY SCI. ENG'G 3995 (2024).
[85] These risks include flammability, difficulties of containment, reactivity, and asphyxiation. Michael Merritt, *Green Hydrogen: Energy Remedy or Safety Headache?*, MARSH (Dec. 6, 2024).
[86] DEIR, supra note 1 at 4.4-2 to 4.4-7.

standards developed.[87] As the PSE Healthy Energy Report points out, hydrogen blending is "an active area of research" with studies showing that blending as little as 5 percent of hydrogen into pipelines can cause embrittlement and with additional studies showing elevated leakage rates from hydrogen blending.[88]

The DEIR claims that the project will comply with recommendations of the Compressed Gas Association and the requirements of the American Society of Mechanical Engineers B31.12, Hydrogen Piping and Pipelines.[89] These rules do provide some guidance for "conversion or retrofit of existing pipeline and distribution systems from natural gas or petroleum to hydrogen service."[90] These commitments are a positive step, but the risk of leaks from the larger pipeline system remains unacknowledged and unanalyzed as long as LADWP persists in piecemealing its hydrogen development plans.[91] To guide this analysis, LADWP should take into account the recent Hydrogen Blending Impacts study published by the California Public Utilities Commission.[92]

P95-20 (cont'd)

SCAQMD also requested that LADWP identify potential adverse air quality impacts from all phases of the Project's construction and operation, including stationary sources, area sources (e.g., solvents and coatings), and vehicular trips. We could find no sign that LADWP considered area sources in the DEIR. This oversight should also be corrected in the revised DEIR.

P95-21

5. The DEIR does not clearly comply with the tribal consultation process required by law

Community groups have raised issues with two tribal consultation laws that may apply to the project. First, there is a concern that not every impacted tribal entity is necessarily represented on the list compiled pursuant to AB 52. We are glad to see that tribal consultation has gone forward with two tribes, the Gabrieleno Band of Mission Indians–Kizh Nation (Kizh Nation) and the Gabrielino Tongva Indians of California (Gabrielino Tongva), and that proposed

P95-22

[87] ACCUFACTS, SAFETY OF HYDROGEN TRANSPORTATION BY GAS PIPELINES (2022). Baldwin et al. report, *available at* https://energyinnovation.org/wp-content/uploads/2022/03/Assessing-the-Viability-of-Hydrogen-Proposals.pdf.
[88] PSE Healthy Energy Report at 32.
[89] DEIR, supra note 1, at 4.4-5, 4.4-7.
[90] *Id.* at 4.4-5.
[91] SARA BALDWIN ET AL., ASSESSING THE VIABILITY OF HYDROGEN PROPOSALS: CONSIDERATIONS FOR STATE UTILITY REGULATORS AND POLICYMAKERS 2 (2022).
[92] CALIFORNIA PUBLIC UTILITIES COMMISSION, HYDROGEN BLENDING IMPACTS STUDY (2022).

mitigation measures were discussed. [93] However, we request that LADWP address the possibility that additional tribes may not yet have been consulted and should be consulted.

Additionally, the community groups have raised the possible applicability of SB 18, which requires additional coordination with the Native American Heritage Commission ("NAHC") to address the concerns of individuals listed by the NAHC with "ancestral affiliations" with the Project area. The SB 18 process is only required if there are changes to the General Plan or changes to land use designations. The environmental review, as currently conducted, is likely piecemealed in such a way that these changes are defined out of the project. LADWP should consider whether the full project, including the hydrogen support infrastructure and other powerplant retrofits would alter the use of a designated zone or require the issuance of a Conditional Use Permit changing a usage that extends beyond the parameters of the Project. In such a case, the SB 18 process must be initiated.

P95-22 (cont'd)

III. THE DEIR'S ALTERNATIVES SECTION VIOLATES CEQA BY PREVENTING STAKEHOLDERS THE OPPORTUNITY TO REFER TO IDENTIFIED ALTERNATIVES IN A CITY-MANDATED ALTERNATIVES ANALYSIS, ARBITRARILY EXCLUDING REASONABLE ALTERNATIVES, AND FAILING TO CONSIDER AN ENERGY STORAGE AND DEMAND MANAGEMENT ALTERNATIVE

P95-23

An DEIR must describe a reasonable range of project alternatives sufficient to permit informed decision-making and public participation. The DEIR fails to meet that requirement for multiple reasons and should have more fully considered multiple reasonable alternatives, including for example, more condensed and longer-duration energy storage resources and a combined resource portfolio approach.

An agency may not approve or carry out a proposed project if feasible alternatives exist that would substantially lessen its significant effects. Pub. Res. Code §§ 21002, 21081. Therefore, lead agencies must examine a reasonable range of alternatives that feasibly meet most of the project's basic objectives while avoiding or substantially reducing the significant effects of the project, even if these alternatives "would impede to some degree the attainment of the project objectives, or would be more costly." CEQA Guidelines § 15126.6 (a), (b). The examination of

[93] DEIR at 4.6-3.

alternatives must "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." CEQA Guidelines § 15126.6(d).

The same holds true for mitigation measures. An agency may not approve a project unless it first finds that "[s]pecific economic, legal, social, technological, or other considerations . . . make infeasible the mitigation measures or project alternatives identified in the final DEIR." CEQA Guidelines § 15091(a)(3); Pub. Res. Code § 21081(a)(3). Thus, an agency must impose all feasible mitigation measures to minimize significant environmental impacts of a project. Pub. Res. Code § 21002.1(b); CEQA Guidelines § 15126.4. Rejected mitigation measures and alternatives, however, must be "truly infeasible." *City of Marina v. Bd. of Trustees of the California State University*, 39 Cal.4th 341, 356, 374-75 (2006) [applying same principle to analysis of legal feasibility of alternatives]. P95-23 (cont'd)

Here, the DEIR failed to state adequately why the environmentally superior alternatives—either in the DEIR or rejected at the scoping state—were infeasible. It is unclear why, given their clear environmental advantages, they are not included either as mitigation measures or as part of the Plan. Thus, the DEIR is inadequate as an informational document.

As SCAQMD explained in its comment letter, LADWP should consider alternatives that would achieve energy reliability through zero emissions technologies; "if zero emission alternatives are not feasible, then the public needs to be provided with the analysis showing why."[94] As a preliminary point, we would like to point out that each of the alternatives which would accomplish this goal are among those "Considered but Dismissed from Detailed Analysis."[95] That section does not adequately provide the public with the analysis that SCAQMD identified as necessary.

A. The DEIR Prevents Informed Decision-Making by Failing to Incorporate the Findings of a City-Ordered Alternatives Analysis

P95-24

[94] DEIR, Appendix A at 112; SARA BALDWIN ET AL., ASSESSING THE VIABILITY OF HYDROGEN PROPOSALS: CONSIDERATIONS FOR STATE UTILITY REGULATORS AND POLICYMAKERS 3 (2022): "Electrification, which involves replacing building equipment and appliances that burn natural gas (or other delivered fuels such as propane or fuel oil) with high-efficiency electric alternatives, results in a far more efficient use of clean electricity than green hydrogen, giving this pathway a fundamental economic advantage."
[95] DEIR at 5-2, 5-3.

This DEIR is premature because in February 2023, the City of Los Angeles ordered LADWP to complete an alternatives analysis to the Scattergood Project,[96] yet that analysis was released only on March 4, 2025. Because the DEIR was produced months before the NREL Alternatives Analysis was released, the DEIR necessarily does not incorporate any of the identified concerns and tradeoffs of the potential alternatives. In addition, the timing of the NREL Alternatives Analysis severely limits the ability of the public to review and incorporate concerns and recommendations regarding alternatives to the Scattergood project. Parties had limited opportunity to review this analysis before the deadline for public comments on the DEIR, posing a procedural obstacle to effective public engagement.

P95-24 (cont'd)

Choosing the precise time for CEQA compliance involves a balancing of competing factors. CEQA Guidance makes clear that "EIRs … should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment." CEQA Guidelines § 15004(b).

While agencies are given discretion on the timing of a project and its CEQA compliance, LADWP is abusing its discretion by undertaking the DEIR before it complied with the City of Los Angeles' requirement to conduct a thorough alternatives analysis. Furthermore, LADWP's Alternatives Analysis–which Los Angeles residents have paid for–was made available to the city's stakeholders for one month before comments are due.

Furthermore, the NREL Alternatives Analysis contains flaws that could be addressed with stakeholder comments and additional revisions, yet the timing of these comments prevents any new alternatives listed within the recently released analysis from full consideration in this CEQA process.

This DEIR is unlikely to yield meaningful information when LADWP has only just received an analysis considering alternatives to hydrogen combustion at Scattergood and three other gas power plants. On February 8, 2023, the LA City Council adopted the Energy and Environment Committee's Report relative to the Scattergood Generating Station Green

[96] Los Angeles City Council Motion 23-009 (Feb. 8, 2023), *available at* https://clkrep.lacity.org/onlinedocs/2023/23-0039_CAF_2-8-23.pdf (ordering LADWP to develop a study reviewing, among other things, "[p]otential alternatives to the project including fuel cells, multi-day demand response programs, long-duration energy storage, and others" and "public health and safety impacts or risks of producing, transporting, storing, and combusting green hydrogen, including emissions of NOx and other pollutants").

Hydrogen Project, directing LADWP to "conduct a new or updated assessment of non-combustion alternatives to the project, including the use of green-hydrogen powered fuel cells, high levels of energy storage, large-scale multi-day demand response programs, new and upgraded transmission lines to import higher levels of renewable energy, and others that considers the public health benefits, safety risks, and costs and benefits, and report to the Council on the results of this analysis within six months."[97]

P95-24 (cont'd)

As of December 2024, LADWP reported to stakeholders that it had contracted with NREL for this study to complete this alternatives analysis and that the preliminary findings would be available in the coming weeks.[98] LADWP leadership has informally offered to share the preliminary findings of the NREL Alternatives Study, but, to our parties' knowledge, did not share any preliminary results with the public. This study was finally released on March 4, 2025, and described a short list of alternatives to hydrogen that could replace the Scattergood Generating Station Units 1 and 2 while supporting grid reliability. The DEIR process should not move forward any further until the results from the NREL study can be reviewed by the public with adequate time.

B. The DEIR Inappropriately Dismisses Alternatives Based on Identical Risks that Apply to the Proposed Project

The DEIR inappropriately dismisses multiple alternatives based on risks and limitations that apply even more so to the proposed Scattergood Project. On March 4, 2025, LADWP shared the long-awaited NREL Alternatives Analysis that proposed and reviewed various alternatives to the Scattergood Project. Notably, the NREL Analysis did not analyze the risks and limitations associated with the Scattergood Project itself. During a brief meeting with stakeholders on March 5, 2025, NREL staff stated that they were tasked with evaluating non-hydrogen alternatives alone and not tasked with reviewing the proposed project.

P95-25

The Analysis then detailed concerns about various alternatives that would equally apply to the proposed project. For example, the Analysis identified significant cost concerns with a hydrogen fuel cell alternative, noting that it identified current installed costs for proton exchange

[97] Los Angeles City Council File No. 23-0039, ENERGY AND ENVIRONMENT COMMITTEE REPORT (Feb. 23, 2023), *available at* https://clkrep.lacity.org/onlinedocs/2023/23-0039_rpt_ee_2-3-23s.pdf.
[98] SLTRP Advisory Group Meeting, Dec. 5, 2024; see also LADWP, Scattergood Modernization – Studies Update (May 15, 2023), *available at* https://www.ladwp.com/sites/default/files/2023-11/2023.05.15%20-%20Scattergood%20Modernization%20Studies%20Update_5%2015%2023.pdf.

membrane fuel cells ("PEMFCs") and then *further applied* "another 50% to the cost to account for higher labor costs for the Southern California market, the uncertainty of the fuel cell module price, and the maximum process and project contingencies associated with a first-of-a-kind installation."[99] The Scattergood Modernization Project would also face any higher labor costs for the Southern California market, uncertainty in price, and the maximum level of process and project contingencies associated with a first-of-a-kind installation. Similarly, NREL's report notes that:

P95-25 (cont'd)

> "[t]he extensive quantity of fuel and related infrastructure required for fuel cells to operate solely on 100% green hydrogen at the Scattergood location is highly unlikely to be available before 2030. Therefore, the fuel cell alternative that strictly conforms to the city council's request is likely infeasible."[100]

However, the Scattergood Project itself as described in the DEIR will similarly rely on the creation and availability of a new green hydrogen system that does not currently exist. The DEIR itself makes this same mistake throughout, citing cost and technological uncertainty as reasons to dismiss alternatives while declining to apply the same risk analysis to the Scattergood Modernization Project.

The DEIR, like the NREL Alternatives Analysis, repeatedly fails to hold the Scattergood Modernization Project to the same level of scrutiny that it applies to proposed alternatives and therefore fails to provide an effective analysis for decisionmakers and stakeholders on whether the Project should move forward.

C. The DEIR Arbitrarily Dismissed the Hydrogen Fuel Cell Alternative on the Basis that It Is Unproven, While the DEIR's Preferred Alternative Relies on Unproven Technology

The DEIR's rejection of the Hydrogen Fuel Cell Alternative defies logic, much less the rule of reason, by claiming that the hydrogen fuel cells are unproven technology and that the modernization project itself is more reliable.

P95-26

The nature and scope of alternatives to be studied in an DEIR is governed by the rule of reason. (CEQA Guidelines § 15126.6(a); *In re Bay-Delta Programmic Envt'l Impact Report Coordinated Proceedings*, 43 Cal. App. 4th 1143, 1163 (2008).) Under the rule of reason, an

[99] National Renewable Energy Laboratory, *Scattergood Modernization Project Alternatives: Summary of Findings* (Feb. 2025, released Mar. 4, 2025), p. 52, *available at* https://www.ladwp.com/sites/default/files/2025-03/2028.02.28%20-%20LADWP%20Agreement%20No.%2047833%20Final%20Report%20%281%29.pdf.
[100] *Id.* at vii.

DEIR need only discuss those alternatives necessary to permit a reasoned choice. (CEQA Guidelines § 15126.6(f). *See California Native Plant Soc'y v. City of Santa Cruz*, 177 Cal. App. 4th 957 (2009).)

The DEIR summarily rejects the hydrogen fuel cell alternative from consideration, stating: "Even though [the hydrogen fuel cell alternative] would meet the project objectives and reduce environmental impacts associated with commissioning and operational air pollutant emissions, it is an unproven technology at the scale required to replace the proposed project generation capacity and may take up to a decade to implement."[101] This statement is hypocritical given that the proposed CCGS project is also reliant on unproven technology that has never been utilized at this scale. The proposed CCGS project also relies on the unprecedented buildout of an entirely new hydrogen pipeline system across Southern California into LA and a green hydrogen market that does not yet exist. These limitations should be equally weighed when comparing the proposed project to the alternatives in the DEIR. The NREL Alternatives Analysis repeated this arbitrary dismissal, noting that hydrogen fuel cells "face increased technical and operational risk/uncertainty."[102] However, both hydrogen fuel cells and the Scattergood Project itself also face these uncertainties, yet NREL dismissed hydrogen fuel cells from further consideration. Interestingly, the NREL Alternatives Analysis review of hydrogen fuel cells notes that "the extensive infrastructure required for fuel cells to operate on 100% green hydrogen at the Scattergood location does not exist and is unlikely to be available before 2030. Therefore, the fuel cell alternative that strictly conforms to the city council request is likely infeasible and not considered for further analysis."[103] Following the same logic, it is critical to note that the lack of 100% green hydrogen fuel would *also* render the Scattergood Project "likely infeasible" and unworthy of further analysis.

P95-26 (cont'd)

The DEIR improperly dismissed the hydrogen fuel cell alternative, and LADWP should reassess this alternative in a recirculated DEIR or programmatic DEIR.

D. The DEIR Improperly Dismissed the Energy Storage Alternative as Infeasible and Fails to Consider Multiple Battery Energy Storage Technologies that Would Meet Project Objectives

P95-27

[101] DEIR at 1-5.
[102] NREL Alternatives Analysis, p.vi. *See, also*, PSE Healthy Energy Report at 38.
[103] NREL Alternatives Analysis at 19.

The DEIR improperly dismisses the battery storage alternative as infeasible due to cost, land constraints, and insufficiency for meeting project objectives if multiple transmission lines are down. The DEIR considers an Energy Storage alternative as Alternative 2, describing the construction of a Battery Energy Storage System ("BESS") instead of the proposed CCGS project.[104] However, the DEIR included multiple flaws that together represent insufficient evidence for dismissing this alternative.

Each of these arguments suffers from oversights rooted in the piecemealing of the project. The acreage argument for dismissing the battery storage alternative[105] is absurd given that the CCGS cannot burn hydrogen without a massive buildout of infrastructure that would result in a footprint much larger than that of the eliminated battery alternative.

P95-27 (cont'd)

The reasoning underlying the claim that the batteries would be depleted after four hours assumes that the energy needed from the project would be 1,384 MWh, or the *maximum gross generation capacity of the CCGS.*[106] In the first place, the DEIR does not defend that assumption. Additionally, the DEIR should consider the length of time that a CCGS could produce energy compared to a BESS, during an emergency that shuts off the inflow of *hydrogen* fuel to Scattergood. If battery storage is eliminated because the batteries could only provide 4 hours of peak energy production without being recharged, the DEIR should compare that scenario to another scenario where an emergency requires that the pipelines supplying hydrogen and natural gas are shut off and the power plant can only run from fuel stored onsite. Such a comparison would give a more accurate sense of the relative merits of the two fuel sources in similar scenarios.

Finally, to the extent that "energy storage is already accounted for" because "LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency"[107], we emphasize a point made in the community groups' Comment Letter. That is, while "LADWP has commissioned studies on how best to achieve carbon-free power generation in its service territory [. . .] those studies have not been subjected to analysis under CEQA."[108] LADWP therefore eliminates this alternative from consideration, in part, by

[104] DEIR at 5-6.
[105] DEIR at 5-7.
[106] *Id.*
[107] DEIR at 5-8
[108] *Id*. at Appendix A, 123.

assuming that another project will be built, despite the fact that that project has not yet received any independent CEQA analysis. Furthermore, a project that LADWP already intends to build is not at all an alternative to the present project.

The DEIR's major flaw with respect to the Energy Storage alternative is that the DEIR arbitrarily limited its consideration to lithium-ion batteries and failed to consider market-ready long-duration energy storage projects. While the DEIR mentions other battery types, it ultimately compares the capacity of 4-hour lithium-ion batteries to the capacity of the proposed CCGS, citing that: "A typical BESS with 1 megawatt ("MW") of power capacity rated at 4 megawatt hours ("MWh") of usable energy capacity means that the battery, if discharged at its total possible instantaneous power capacity, would have an operational duration of four hours before its energy capacity is fully depleted."[109] The DEIR states that the Energy Storage alternative "would meet some of the project objectives; however, it would not provide requirements for a reliable, resilient, and readily dispatchable longer duration energy source during periods of critical demand when major interruptions to service occur."[110]

P95-27
(cont'd)

However, battery energy storage technology exists today that can provide consistent, reliable, resilient, and readily dispatchable power over multiple days, representing a feasible alternative technology that could change this conclusion. As described by PSE Healthy Energy, the DEIR's "estimates of the amount of storage that could be sited at Scattergood are low and do not consider alternatives that could potentially increase the storage by a factor of two or more using existing technology."[111] The same report found that battery energy storage is "a viable option to meet the goals of the Project as stated and needs further consideration both as a stand-alone alternative and as a component to a hybrid alternative."[112] In addition, the report lists other battery energy storage technologies that could provide "higher densities and durations," including:

- Envision Energy demonstrated a 8 MWh battery using 700 Ah lithium-iron phosphate ("LFP") battery cells, approximately twice the energy of the Tesla Megapack per unit container of roughly similar dimensions.

[109] *Id.* at 5-7.
[110] *Id.* at 1-5.
[111] PSE Healthy Energy, Assessment of LADWP's Draft Environmental Impact Report for Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (Feb. 2025) at 30.
[112] *Id.* at 30-31.

- FORM energy builds 100-hour iron-air batteries that provide storage of 300 MWh per acre and is expected to begin operation by the end of 2025. These cells, however, discharge much slower and would be less suitable for the Scattergood parcel as they would need a considerable footprint to meet the peak load. They could, however, provide essential long-duration capacity if sited on neighboring parcels as discussed [later in the Report].
- ESS started development of a long-duration iron flow 200 MW/2 GWh BESS with a duration of up to 12 hours for the Sacramento Municipal Utility District. Domestic production of these has already begun.
- Average prices for battery packs have also decreased by roughly 30% in the two years alone since the SLTRP was written in 2022 according to Bloomberg.[113]

P95-27 (cont'd)

In addition to battery storage, other forms of energy storage can operate on a longer timeframe, offering multi-day, firm, dispatchable capacity, than the battery energy systems described in the DEIR. For example, comparing the capacity and duration of a 100-hour iron-air battery, 1 MW of power capacity would yield 100 MWh of energy capacity.[114] One long-duration energy storage vendor states that its current systems today can achieve a capacity of greater than 3 MW and 300 MWh per acre.[115] Based on the Department of Energy's assessment that the energy density of lithium-ion batteries has roughly doubled every 3 years through typical technology learning cycles,[116] it would be reasonable for the DEIR to assume comparable technology learning cycles for long-duration energy storage batteries, and to include BESS Alternative scenario in the DEIR that reflects long-duration energy storage densities ranging from 3 MW / 300 MWh per acre today to 6 MW / 600 MWh per acre in the 2028-2030 timeframe.[117] Iron-air batteries can discharge their capacity over a much longer period of time than the lithium ion batteries considered in the DEIR, meaning that they are far more capable of

[113] *Id.* at 31-32 (internal citations omitted).
[114] California Energy Commission, "CEC Awards $30 Million to 100-Hour, Long-Duration Energy Storage Project" (Dec. 13, 2023), *available at* https://www.energy.ca.gov/news/2023-12/cec-awards-30-million-100-hour-long-duration-energy-storage-project.
[115] FORM Energy, "Battery Technology: Multi-day storage: the pathway to a reliable, clean and secure grid," *available at* https://formenergy.com/technology/battery-technology/.
[116] U.S. Dep't of Energy, "FOTW #1234, April 18, 2022: Volumetric Energy Density of Lithium-ion Batteries Increased by More than Eight Times Between 2008 and 2020," (Apr. 18, 2022), *available at* https://www.energy.gov/eere/vehicles/articles/fotw-1234-april-18-2022-volumetric-energy-density-lithium-ion-batteries.
[117] FORM Energy. *Battery Technology*, *available at* https://formenergy.com/technology/battery-technology/.

meeting the project objectives of supporting grid reliability through peak loads and multi-day emergency reliability conditions. As noted in the PSE Healthy Energy Report, LADWP could consider this type of long duration storage at Scattergood and nearby parcels with no emissions impacts or the need for an entirely new fuel system.

Furthermore, as discussed in Section II.B.1 above, the DEIR Project Objectives fail to include a finite reliability standard that the Project must achieve. Accordingly, there is no objective rubric against which to determine that an energy storage alternative would fail to meet reliability requirements. The lead agency cannot have it both ways: defining a vague reliability objective that is impossible to meet and then arguing that a project alternative fails to meet the vague objective. Accordingly, either the project objective fails to state a sufficiently finite project objective, or this alternative cannot be reasonably dismissed for failing to meet a vague objective.

P95-27
(cont'd)

Next, the DEIR cites land constraints as a reason to dismiss the Energy Storage alternative. However, battery storage projects can be built vertically, meaning that projects can effectively be stacked with considerable energy densities. Similarly, the NREL Alternatives Analysis dismissed energy storage as a viable alternative based on land constraints, but the Analysis cannot support the DEIR's review of energy storage systems because it too failed to consider vertical stacking of batteries to improve the energy density and address spacing concerns.[118]

The PSE Healthy Energy Report notes that both the DEIR and NREL Alternatives Analysis err by assuming a misleadingly low areal density ("MW/acre") of storage, when any of the following three alternatives could be pursued. First, LADWP could use recently demonstrated lithium batteries that have roughly doubled the energy available per BESS unit. The PSE Healthy Energy Report notes that "for in-basin energy resources where real estate is a large constraint, significantly higher densities of energy storage are possible using proven technologies,"[119] including lithium-ion batteries that "can range as high as 62 MWh per 1 acre using Tesla Inc. Megapacks in blocks of two."[120] Second, neither the DEIR nor the NREL Alternatives Analysis considered the possibility of leasing the additional space required to

[118] *See* PSE Healthy Energy Report at 31-32 (describing the DEIR's areal density assumptions for battery energy storage systems as well as other battery systems with higher energy densities).
[119] PSE Healthy Energy Report at 31.
[120] *Id.* at 28-29.

deploy other long-duration energy storage resources that would meet the Project Objectives without any emissions impacts to nearby communities. The DEIR should not assume that BESS alternatives must be sited solely within the footprint of the proposed CCGS. As a modular resource, BESS can be distributed more broadly within LADWP's territory, further strengthening the reliability and resilience of the system by avoiding the risk of large, single-point system failures. The PSE Healthy Energy Report detailed a hybrid alternative that incorporated this possibility, which we discuss in detail in the next section.

P95-27 (cont'd)

Lastly, the DEIR and NREL Alternatives Analyses failed to consider stacking batteries, as shown to be an option in existing projects. The DEIR failed to provide any evidence to explain why storage would need to be built horizontally and low to the ground. As mentioned above, a huge amount of energy storage capacity could be developed within the acreage of the Scattergood project.

Battery energy systems provide the California grid critical dispatchable energy produced by renewable energy. While the January 2025 fire at the Vistra Moss Landing battery energy facility emphasizes the importance of fire safety standards, California regulators have since established new safety standards for battery energy storage systems as modifications to General Order 167.[121] The updated General Order sets new standards for the maintenance and operation of BESS, including requirements that facility owners develop and coordinate emergency response and action plans with local authorities as well as seek approval of and implement maintenance and operation plans.[122] The section of the Vistra energy facility that burned contained relatively older manganese-cobalt energy technology that is not under consideration by LADWP or NREL in their reports. Any battery storage facility developed in LADWP territory should be subject to the most recent safety standards and requirements to ensure the safety and reliability of the facility.

E. A Hybrid Energy Storage and Demand-Side Alternative Would Substantially Reduce Significant Project Impacts, Is Reasonable and Feasible, and Should Be Analyzed in a Recirculated DEIR.

P95-28

In a recirculated DEIR, LADWP should analyze an alternative based on multiple technologies developed together to provide vast reliability and grid management tools with none

[121] California Pub. Util. Comm'n, Resolution ESRB-13: Adopts General Order ("GO") 167-C, Enforcement of Maintenance and Operation Standards for Electric Generating Facilities and Energy Storage Systems (Mar. 13, 2025), *available at* https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M558/K715/558715484.pdf.
[122] *See, generally, id.*

of the air quality impacts associated with the Scattergood Project. The DEIR's alternatives consider only one-for-one tradeoff of technologies against the proposed project. Instead, LADWP should recirculate a programmatic DEIR or revised DEIR that considers an alternative of deploying energy storage at the Scattergood site alongside additional investments at adjacent facilities, adjacent-sited demand-side management, and local in-basin distributed generation. This alternative is described in detail in the attached PSE Healthy Energy Report's section 5(c), entitled "Suggested Alternative: Energy Storage and Demand-Side Hybrid."[123]

A key purpose of the CEQA process for review and comment on a draft DEIR is to identify ways a project's significant impacts might be reduced or avoided. CEQA guidelines specify that comments should propose "additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects." (CEQA Guidelines § 15204(a).) Potential alternatives are reviewed to determine whether they: (1) can substantially reduce significant environmental impacts; (2) can attain most of the basic project objectives; (3) are potentially feasible; and (4) are reasonable and realistic. (CEQA Guidelines § 15126.6(c).)

P95-28 (cont'd)

Developing a hybrid combination of energy storage at the Scattergood Project site, adjacent energy storage, nearby demand-side management and distributed generation resources would meet and exceed the basic project objectives, is both economically and legally feasible, and would avoid the significant air impacts associated with the Scattergood Project by eliminating operational air quality impacts altogether. PSE Healthy Energy estimates: "Using 62 MWh per acre and 18 acres—the values of a more spatially optimized BESS . . . " could potentially provide 279 MW of power for four hours, just 67 MW lower than the proposed project capacity of 346 MW.[124] Using Envision Energy batteries in the same configuration as the Megapacks "could roughly double the capacity of the installation to over 500 MW of four-hour storage, higher than the Project capacity."[125]

Under the Energy Storage and Demand-Side Hybrid alternative, even more generation and storage capacity could be developed through adjacent-site battery energy systems. As noted by PSE Healthy Energy, LADWP already coordinates closely with its neighbors at the Hyperion

[123] PSE Healthy Energy Report. at 36-40.
[124] *Id.* at 33.
[125] *Id.*

Water Reclamation Site.[126] LADWP could consider leasing a minimal amount of acreage from the nearby Hyperion Water Reclamation Site to develop additional solar and storage systems, noting that leasing just four acres of the Hyperion Water Site would provide enough space for a BESS to run Hyperion at full load for over four hours in the event of an outage.[127] The PSE Healthy Energy Report also notes that LADWP could coordinate with the nearby Los Angeles International Airport ("LAX") to site longer duration BESS like "iron flow batteries with duration of up to 12 hours or the iron-air batteries with durations of 100 hours."[128]

The last component of a hybrid alternative would include targeted distributed generation and storage deployment in neighboring communities. The PSE Healthy Energy Report identified 94 nearby schools within five miles of Scattergood that could host solar+storage facilities, increasing local generation capacity and providing essential reliability and resilience services.[129] Finally, PSE Healthy Energy lists multiple options to reduce peak demand for its largest nearby customers, including time-of-use rates, demand response incentives, and load shifting.[130]

P95-28 (cont'd)

This combined Energy Storage and Demand-Side Hybrid Alternative would avoid the air pollution impacts from the Scattergood Project while providing a diversified energy project that would provide far more reliability support and grid flexibility than the Scattergood Project. This proposal could be developed without the need for a multi-billion dollar hydrogen production, transportation, and storage project and would rely on proven, existing, market-ready technologies that have been deployed extensively throughout California. This alternative should be included in a recirculated DEIR and selected as the environmentally superior alternative and preferred project.

The NREL Alternatives Analysis briefly considered pairings of energy resources aimed at meeting project objectives, but did not consider a hybrid alternative reflecting a diversified energy project to meet the stated objectives. The NREL Analysis concluded that the combinations of paired resources that it reviewed would not be suitable because they would be "more expensive and do not eliminate significant technology risks."[131] However, the same

[126] *Id.* at 33-34.
[127] *Id.* at 34.
[128] *Id.*
[129] *Id.* at 6-7.
[130] *Id.* at 36.
[131] NREL Alternatives Analysis at viii-ix.

analysis arbitrarily increases the cost of the analyzed alternatives, for example increasing the costs of fuel cells by 50% on the basis of risks that equally apply to the Scattergood Project.[132] Similarly, the report claims that combination options would "not eliminate significant technology risks"[133] but fails to detail what this means and why it would not apply to a single massive investment in a new methane-hydrogen combustion power plant. These findings do not constitute substantial evidence upon which LADWP can rely to advance the Scattergood Project.

P95-28 (cont'd)

Rather, a combined Energy Storage and Demand-Side Hybrid Alternative represents a feasible and reasonable alternative to the Scattergood Project while avoiding the most significant cost, air emissions, and environmental impacts associated with the Project. We urge LADWP to consider a hybrid alternative along the lines described in these comments and attached PSE Healthy Energy report as an alternate pathway to reaching the project objectives.

F. The DEIR Improperly Relies on the LA100 Study to Justify the Need for In-Basin Generation at the Exclusion of Alternatives

The DEIR improperly relies on the LA100 study to justify the need for in-basin generation, demonstrating a precommitment to specific alternatives and lack of adequate consideration of non-combustion alternatives at the Scattergood facility, specifically. The Renewable Energy Investments and Operations portion of the LA100 study notes that the need of "renewable firm capacity resources—resources that can generate on demand and provide uninterrupted supply over the course of days to weeks" so that LADWP can "cost-effectively balance supply and demand on every day of the year.[134] However, nothing in the LA100 study states that firm combustion resources like hydrogen replacement must replace in-basin generation from Scattergood. It simply states that "[f]irm capacity technologies thus make up the difference."[135]

P95-29

We do not dispute the need for long-duration dispatchable and reliable generation in-basin. However, the LA100 study's reliance on biofuels and hydrogen to meet this need is based on old cost inputs and capacity credit values. The 2021 study states: "Wind, solar, and diurnal

[132] *Id.* at 52 (describing that the analysis of fuel cells added "another 50% to the cost to account for higher labor costs for the Southern California market, the uncertainty of the fuel cell module price, and the maximum process and project contingencies associated with a first-of-a-kind installation").
[133] *Id.* at 30.
[134] LA100 Study, Chapter 6 at 55, *available at* https://www.nrel.gov/docs/fy21osti/79444-6.pdf.
[135] *Id.*

storage assets continue to make up a substantial portion of the firm capacity needs, but as noted above, their declining capacity credit make it cost-prohibitive to meet all capacity needs with those assets alone."[136] Given emerging technology such as long-duration energy storage and recent demonstrable success of battery storage in meeting demand peaks in California, the DEIR fails to properly evaluate project alternatives unless it is updated to address how no-combustion technology can meet the need for "firm capacity" as articulated in the LA100 study.

P95-29 (cont'd)

G. The DEIR Fails to Consider Alternatives that Mitigate Impacts from Existing Scattergood Operations

Finally, the DEIR omits consideration of any reasonable alternatives (such as those discussed above in this section) that could mitigate ongoing significant environmental impacts resulting from Scattergood's current operations. As discussed above in Section II.C.1, Scattergood is currently relying on OTC operations whenever the plant is called upon for energy generation. The air emissions from its generation activities, and the marine impacts from its OTC operations, would not be certain to occur for the next four years through the OTC cessation date at the end of 2029—in other words, reasonable alternatives beyond those considered in the DEIR could result in earlier cessation of OTC operations and emissions-generating activities. As a result, the alternatives section in the DEIR is not only incomplete in the scope of alternatives considered, but also incomplete in the degree of mitigation of impacts that could result by considering those alternatives.

P95-30

The lack of consideration of marine impacts from continued OTC operations anywhere in the DEIR illustrates the flaw in LADWP's selected alternatives. In its 2010 final environmental review document, the SWRCB wrote:

> The consensus among regulatory agencies at both the state and federal levels is that OTC systems contribute to the degradation of aquatic life in their respective ecosystems. In its 2005 report, the CEC concluded OTC systems were "partly responsible for ocean degradation" and contributed to declining fisheries and impaired coastal habitats through the intake of large volumes of water and the discharge of elevated-temperature wastewater. The development record for both the Phase I and Phase II rules contain numerous documented examples of significant impacts from OTC on aquatic communities, including California.[137]

[136] *Id.*

[137] State Water Resources Control Board, Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling: Final Substitute Environmental Document (May 4, 2010), *available at*

LADWP cannot ignore the imminent deadline to cease OTC operations because of the substantial likelihood of continuing OTC impacts to marine life during the plant's shutdown of Units 1 & 2, which are not considered as part of the alternatives analysis in the DEIR. Rather than conducting such an analysis, LADWP again kicks the can down the road:

> The implementation of the proposed project would have no bearing on the requirement to cease operation of the OTC system, which is separately required under the SWRCB's OTC Policy. Similarly, the decision regarding the final disposition of the OTC system facilities within the lease areas is unrelated to the implementation of the proposed project. Therefore, the analysis of potential impacts related to the final disposition of the OTC system facilities located outside of Scattergood, including their potential continued use for stormwater and/or wastewater discharge, will be addressed via a separate CEQA environmental review process conducted by LADWP. As such, this current DEIR does not address this determination.[138]

P95-30 (cont'd)

This is plain error. The Scattergood project expressly contemplates the cessation of OTC operations, and the project timeline is intrinsically tied to the current OTC closure deadline at the end of 2029. As such, the failure to consider any environmental impacts related to OTC operations disregards the mandate of CEQA to explore a robust set of alternatives to allow LADWP and the public to make a reasoned choice about which alternative mitigates environmental impacts to the greatest degree.

As part of the alternatives analysis, LADWP must analyze the environmental effects of continuation of OTC operations at Scattergood until 2029 and commit to all feasible mitigation measures—with on-site mitigation being preferable. Doing so will further reveal the benefits of exploring non-combustion alternatives at Scattergood, especially those which could result in earlier cessation of OTC operations than the current 2029 deadline.

IV. SUBSTANTIVE CONCERNS

A. LADWP's Analysis of Environmental Impacts Is Inaccurate and Incomplete

P95-31

LADWP's analysis of environmental impacts is neither accurate, nor complete, falling short of CEQA's standards. As a result, it includes confused and inaccurate significance

https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/otc_sed2010.pdf, p. 29 (citations omitted); *see also id.* at 34 Table 3 (identifying an estimate of the extent of impingement and entrainment of fish from OTC operations at the Scattergood facility as of 2010).

[138] DEIR at 3-3.

determinations for air quality impacts and GHG impacts. A revised DEIR should evaluate cumulative public health impacts from Scattergood emissions by accounting for background ozone and PM2.5 concentrations, evaluate air quality and GHG impacts across multiple capacity factors, account for cumulative emissions impacts associated with the production, transportation, and storage of hydrogen, account for the risk of higher NOx emissions from hydrogen blends, and evaluate air quality impact significance against a proper baseline. P95-31 (cont'd)

1. Air quality impacts

a) The DEIR fails to evaluate cumulative public health impacts

The DEIR fails to analyze public health impacts from local pollution. Specifically, the DEIR does not evaluate the cumulative health impacts from PM2.5 exposure, only comparing to the SCAQMD 24-hour significance thresholds.[139] Only comparing emissions against the NAAQS and CAAQS annual average standards can assess long-term exposure and resultant cumulative impacts. Moreover, the DEIR does not consider secondary PM2.5 and ozone formation. This leads to an undercounting of impacts because Scattergood increases SO2 and VOC emissions, precursors of secondary PM2.5 and ozone.[140] P95-32

Analysis from PSE Healthy Energy demonstrates that under the 100% methane *and* 70/30 hydrogen blend scenarios, the Project will add considerable NOx, SOx, and PM2.5 emissions contributing to the formation of secondary PM2.5 and ozone.[141] This PM2.5 and ozone pollution will be emitted into an air basin classified as in extreme nonattainment for both PM2.5 and ozone.[142]

Due in part to Scattergood's location in an area with high pollution burden, air quality impacts are substantial.[143] Assuming a 25 percent capacity factor, PM2.5 pollution from the Project would result about 2.5 mortalities annually. Over a typical 30-year lifespan, these impacts would accumulate to 67.8 to 81.3 PM2.5-related mortalities, valued at approximately $1 billion based on EPA's Value of Statistical Life.[144] The SLTRP anticipates a base case capacity

[139] PSE Healthy Energy Report at 12.
[140] *Id.* at 12-13.
[141] *Id.* at 3-4.
[142] *Id.* at 3.
[143] PSE Healthy Energy Report at 6 ("The area (within 5 miles) is in the top 25% of all CalEnviroScreen scores statewide, meaning the community is already overburdened and highly sensitive to further environmental stressors")
[144] *Id.*at 17.

factor of 40% by 2030, which can result in even greater health impacts, shown below. Despite LADWP's own plans in the SLTRP to run Scattergood at a higher capacity factor than 25 percent, the DEIR fails to evaluate emissions capacity factors greater than 25 percent.

Table 1: Secondary PM2.5 Impacts (Annual Projected Statistical Mortality and Associated Monetary Value)[145]

	Vendor B		Vendor C	
Capacity Factor (%)	100 % Gas	70% Gas & 30% Hydrogen	100% Gas	70% Gas & 30% Hydrogen
10	1.08 ($15.21 M)	1.03 ($14.48 M)	0.90 ($ 12.67 M)	0.96 ($13.47 M)
25	2.71 ($38.03 M)	2.54 ($36.21 M)	2.26 ($ 31.69 M)	2.40 ($33.66 M)
40	4.34 ($60.85 M)	4.13 ($57.94 M)	3.61 ($ 50.71 M)	3.84 ($53.86 M)

P95-32 (cont'd)

EPA's COBRA tool shows additional public health impacts (beyond mortalities) from the Project's emissions, as a result of secondary ozone and PM2.5 pollution. Assuming a 25 percent capacity factor, these annual impacts include 409 asthma exacerbations, 136 ozone-related school loss days due to illness, and 54 PM-related work loss days.[146] With a 40 percent capacity factor, these annual impacts rise to 654 asthma exacerbations, 219 ozone-related school loss days due to illness, and 87 PM-related work loss days.[147] And these impacts are likely substantially underestimated. COBRA's resolution is at the county level. As a result, secondary pollution impacts are analyzed across a higher air quality baseline than where the impacts of Scattergood's emissions will be mostly felt, in the smaller radius surrounding the facility. Indeed, the population surrounding Scattergood is uniquely susceptible to air quality impacts. The 5-mile radius surrounding Scattergood is extremely densely populated relative to the county, with 386,000 people residing there, and the pollution burden is already very high, greater than the pollution burden in 96 percent of California. In that 5-mile radius, 48% of the total annual generation occurred on days that exceeded the ozone NAAQs and 6 percent on days that exceeded the PM2.5 NAAQS in 2018 when Scattergood operated at a capacity factor of 17 percent.[148] The DEIR fails to analyze these considerable impacts.

[145] *Id.* at 19, Table 4.
[146] *Id.* at 4.
[147] *Id.* at 23, Table 6.
[148] *Id.*at 7-9.

b) The DEIR contains an incomplete emissions analysis due to evaluation of different capacity factors for methane and hydrogen blending

The DEIR includes incomplete analysis of emissions impacts by analyzing different capacity factors for current operations at Scattergood (the DEIR's already improper baseline) and for the Project. As a result, the DEIR presents criteria pollutant emissions from hydrogen blending that are at minimum 2.5x lower than should be presented. With minimal explanation, the DEIR presents emissions from the proposed Project vendors (including two hydrogen blends) based on a 10 percent capacity factor while presenting emissions from currently combusted methane at a 25 percent capacity factor. This is misleading, by showing hydrogen blend emissions to be artificially lower than methane emissions, and it is also not based in reality. LADWP's capacity needs will not vary based on how much hydrogen it decides to blend into its combustion at the Project, and the DEIR contains scant explanation for why capacity needs will dip to accommodate the challenges of hydrogen blending. While hydrogen is 2.5 less dense than methane, requiring 2.5x the volume for the same amount of energy, that is not the case for hydrogen blends, such as the 70/30 blend presented in the DEIR. If Scattergood can indeed fill LADWP's capacity needs with a 10 percent capacity factor, then it must update its project alternatives section to evaluate project alternatives that can satisfy that lower capacity need. As discussed in Section II.B.2 above, even at a 25 percent capacity factor, there are feasible project alternatives to the Project. At a 10 percent capacity factor, there are likely an even larger suite of feasible project alternatives.

P95-33

c) The DEIR contains an incomplete emissions analysis due to lack of scrutiny on vendor emissions data and failure to evaluate potential increased NOx emissions from hydrogen blending

P95-34

The above public health impact estimates are likely substantial underestimates. While the health risk assessment ("HRA") presented in the DEIR concluded that emissions from the proposed project would not exceed established significance thresholds,[149] this analysis is dependent on the dubious presumption that NOx emissions factors for methane and a 70/30

[149] DEIR at 3-14.

hydrogen blend would be the same, on a per energy basis. These inputs do not withstand scrutiny for a number of reasons.

First, the health risk assessment's NOx emissions factors for hydrogen blends are unverified and presented without methodology.[150] It is unclear from the HRA whether the vendor's provided emissions factors for hydrogen blends are based on testing, at what scale that testing was done, and whether that scale is congruent with the proposed Project. If the emissions factors were based on models, those models are not shared, nor is the methodology for such models shared, this despite the fact that hydrogen combustion is a novel technology. The DEIR instead relies on unspecified vendor data to claim that NOx emissions with a 30% hydrogen blend will go down compared to combustion of methane.[151] The "vendor data" relied on is presented nowhere in the DEIR or appendices. Similarly, the AQMD applications repeat this data but provide no basis or explanation whether the data originates from burning methane or a particular methane-hydrogen blend.

P95-34
(cont'd)

Second, it appears that the vendor's provided emissions factors are dependent on emissions controls not currently available at this scale. While the DEIR states that: "The combustors in the combustion turbines would use dry burner technologies to reduce the production of NOx, and an SCR system would provide additional post-combustion reduction of NOx emissions,"[152] no data is presented to show that these technologies are available for the proposed use or that they would, in fact, lead to NOx emissions at the proposed Project. This level of detail is not sufficient for CEQA compliance. The fact is that, as of this writing, there is no proven large-scale technology to control the additional NOx emissions from burning hydrogen in a facility as big as the Project. As the PSE Healthy Energy report points out, NOx emissions factors for hydrogen blends "assume the use of NOx emissions controls for which no details are provided. This omission is significant, as existing literature indicates that hydrogen combustion can elevate NOx emissions relative to methane if proper controls are not implemented."[153]

[150] *See* PSE Healthy Energy Report at 13-14.
[151] DEIR Tables 4.2-8 to 4/2-14; DEIR Appendix B, Tables 4-7 to 4-14.
[152] DEIR at 3-14.
[153] PSE Healthy Energy Report at 4.

Third, the vendor information contradicts the academic literature indicating that combustion of hydrogen blends elevates NOx emissions compared to methane. Studies show that the combustion of hydrogen causes significant NOx emissions, in excess of methane's emissions.[154] In fact, hydrogen burns hotter than methane and NOx emissions increase exponentially with temperature.[155] When combusted, hydrogen can create more NOx emissions than fossil gas.[156] The Clean Energy Group ("CEG"), a nonprofit advocacy organization, warns that hydrogen ("H2") energy widely touted as a carbon-free source that can be used to limit GHGs could create "dangerously high" NOx levels if blended with natural gas and combusted for power generation. In particular, the Clean Energy Group found that "[b]urning hydrogen can lead to nitrogen oxide (NOx) emissions up to six times that of methane."[157] *See also* The LADWP DRAFT 2022 Power Strategic Long-Term Resource Plan at 2-69 ("Hydrogen has a larger flammability range and a lower ignition point compared to natural gas").

P95-34 (cont'd)

Fourth, the 100 percent green hydrogen combustion goal for Scattergood is conspicuously absent from emissions analysis. There are suggestions in the DEIR and elsewhere that LADWP may want to move to 100% hydrogen fuel for the Project. In a scenario of 100% hydrogen, there should be no VOC and primary PM2.5 emissions, as these are byproducts of incomplete fossil fuel combustion. But if (as we expect) NOx emissions increase in the 100% hydrogen scenario relative to the 100% natural gas, the air quality benefits of eliminating VOC and PM2.5 emissions (resulting from getting rid of natural gas) would be reduced or eliminated depending on the magnitude of the NOx emissions increase because NOx is also a precursor of ground-level ozone and secondary PM2.5. If NOx

[154] *Id.* at 17 (citing Shilling, N. Z. (2023). Emissions and Performance Implications of Hydrogen Fuel in Heavy Duty Gas Turbines. Clean Air Task Force, *available at* https://cdn.catf.us/wp-content/uploads/2023/07/13144950/emissions-performance-implications-hydrogen-fuelheavy-duty-gas-turbines.pdf.
[155] Ron Walton, *Hydrogen substitution for natural gas in turbines: Opportunities, issues, challenges* (Jun. 18, 2021), Excelsior University, *accessed at* https://www.power-eng.com/gas/hydrogen-substitution-for-natural-gas-in-turbines-opportunities-issues-and-challenges/. This article also describes the three main issues with combustion of hydrogen: flashback, blowoff, and combustion instabilities. With respect to flashback, the article states: "this is the most severe concern around high H2 levels in systems designed for natural gas, as the flame can propagate upstream and catastrophically damage hardware. Hydrogen's flame speed is an order of magnitude higher than that of natural gas. Therefore, flashback is the dominant issue for modern lean premixed combustors on hydrogen fuel." The Project DEIR does not address any of these issues.
[156] *See, e.g.*, David Clarke, *Clean Energy Group Warns Of High NOx From Hydrogen Gas Combustion* (Dec. 18, 2020), Inside EPA, *accessed at* https://insideepa.com/share/227828.
[157] Clean Energy Group: HYDROGEN AREAS OF CONCERN, *accessed at* https://www.cleanegroup.org/initiatives/hydrogen/areas-of-concern/ (last visited Apr. 4, 2025).

emissions increase substantially with the introduction of hydrogen, it can lead to a situation where having hydrogen fuel would make things worse for air quality than using 100% methane. This situation is not analyzed in the DEIR.

P95-34 (cont'd)

d) The DEIR's analysis of significance thresholds is inaccurate

The DEIR's analysis of the significance of air quality impacts is inaccurate, finding only significant peak daily emissions air quality impacts for VOCs.

Table 2: **Summary of Peak Daily Emission Change for All Vendors, 70% Natural Gas, 30% Hydrogen**[158]

	(lb/day)					
	VOC	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
Vendor A Total Peak Emissions	263	1,242	570	43.8	191	191
Vendor B Total Peak Emissions	930	2,355	573	42.4	226	226
Vendor C Total Peak Emissions	250	950	470	35.4	236	236
Baseline: Existing Emissions, Units 1 and 2	270	3,293	932	35.1	374	374
Vendor A Incremental Change in Emissions	-7.6	-2,051	-362	8.7	-182.2	-182.2
Vendor B Incremental Change in Emissions	659	-938	-359	7.3	-147.5	-147.5
Vendor C Incremental Change in Emissions	-20.6	-2,343	-462	0.3	-138	-138
SCAQMD Mass Daily Emission Threshold	*55*	*550*	*55*	*150*	*150*	*55*
Vendor A Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Vendor B Exceed SCAQMD Threshold?	**Yes**	**No**	**No**	**No**	**No**	**No**
Vendor C Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

P95-35

First, the analysis is fundamentally flawed as it reflects an improper baseline, as discussed in Section II.C above. Because it improperly places the baseline as current emissions from Scattergood, the DEIR ignores that the Project leads to exceedances of SCAQMD's CEQA Thresholds of Significance. The threshold for NOx emissions during project operations is 55 lbs/day. For all the vendors assessed in the DEIR the NOx emissions of 70% natural gas, 30% hydrogen combustion during normal operations are: 570 lbs/day (Vendor A), 572.5 lbs/day (Vendor B), 470 lbs/day (Vendor C). However, even though these NOx emissions are about 10 times higher than the threshold, because the baseline of comparison is emissions from a 100% methane combustion scenario these emissions are stated as "not exceeding the SCAQMD threshold" (Table 4.2-15).[159] As stated above regarding the project's baseline, the Scattergood

[158] DEIR Table 4.2-15 (citing Vendor data, LADWP Unit 1 and 2 CEMS data).
[159] *Id.* at 4.2-23.

Once-Thru-Cooling units must be retired by 2029.[160] Therefore, the baseline for comparison for this project should be "no gas plant". Furthermore, in the South Coast Air Basin, which is in extreme nonattainment for Ozone ("O_3") and PM2.5, any increase in NOx emissions, which are a known precursor to Ozone[161], constitutes significant impacts.

Notably, the South Coast is in such severe noncompliance with federal air quality standards for ozone that South Coast is required to develop a contingency plan to address NOx emissions and has recently agreed that it is required under the Clean Air Act to start fining large polluters of precursors of ozone, i.e. NOx and VOCs, until it is no longer in severe or extreme nonattainment of ozone standards.[162] Scattergood is identified by South Coast as a major polluter subject to NOx pollution fees, and unless the facility reduces emission by 20 percent, it will be subject to fines for each ton of NOx and VOCs it emits annually.[163] This regulatory context indicates the significance of even minor NOx emissions in an air basin where NOx is severely harming public health. As detailed above, it is indisputable that the Project will emit significant NOx emissions, whether the 100% methane of 70/30 hydrogen blend scenario. Analysis from PSE Healthy Energy shows that these NOx emissions will lead to considerable impacts from secondary ozone and PM2.5 pollution, including increased incidences of asthma, hospital visits, and mortalities due to respiratory issues.

P95-35 (cont'd)

Second, the DEIR does not adequately consider cumulative impacts. CEQA requires consideration of cumulative impacts. An DEIR is required "if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable . . . when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects." (4. Cal. Code Regs. Tit. 14, §

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[160] California Water Boards, *Board adopts amendments extending once-through-cooling operations at four coastal plants* (Aug. 17, 2023), *accessed at* https://www.waterboards.ca.gov/press_room/press_releases/2023/otc-press-release-8.17.2023.pdf.

[161] EPA, *Technical Bulletin: Nitrogen Oxides (NOx), Why and How They are Controlled* (Nov. 1999), *accessed at* https://www3.epa.gov/ttncatc1/dir1/fnoxdoc.pdf.

[14] Dennis Wamsted, *Hydrogen: Not a Solution for Gas-Fired Turbines*, *Billions of Dollars in Needed Infrastructure Investment Would Yield Only Marginal Environmental Benefits*, IEEFA (August 2024), *available at* https://ieefa.org/sites/default/files/2024-07/Hydrogen%20Not%20a%20Solution%20for%20Gas%20Fired%20Turbines_August%202024.pdf.

[162] Rule 317.1, Clean Air Act Nonattainment Fees for 8-Hour Ozone Standards, SCAQMD, *available at* https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/rule-317-1.pdf?sfvrsn=16.

[163] South Coast Air Quality Mgmt. Dist., *Rule 317.1 List of Facilities and PTE by Equipment* (Dec. 13, 2024), *available at* https://www.aqmd.gov/docs/default-source/compliance/rule-317.1---applicability/rule-317-1-facilities-list.xlsx?sfvrsn=10.

15064(h)(1).) CEQA requires cumulative analysis of the "incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." (*Id.* § 15355.) Cumulatively considerable environmental effects require a mandatory finding of significance. (*Id*. § 15065(a)(3).) The agency must interpret the cumulative impacts "in such a way as to 'afford the fullest possible protection of the environment.'" (*Friends of the Eel River*, 108 Cal. App. 4th at 868.) Informational deficiencies in the cumulative impacts analysis preclude an accurate accounting of impacts, constituting failure to proceed in manner required by law. (*Bakersfield Citizens for Local Control*, 124 Cal. App. 4th at 1120-21 (2004).)

Despite this legal mandate, the DEIR does not consider how air quality impacts from the Project will exacerbate existing pollution burdens. LADWP plans to run the Project as a peaker, typically on hot days when demand – and NOx emissions in general – are high. Adding NOx emissions during those periods will make the regional smog problem worse at the most critical times -- especially for the environmental justice communities that bear the brunt of the smog problem in the South Coast Air Basin. In that context, the LADWP DRAFT 2022 Power Strategic Long-Term Resource Plan states that its green hydrogen plants are intended to run during stressed load conditions such as wildfires and heat waves. Yet the DEIR fails to analyze NOx emissions under extreme heat scenarios like those seen in September of 2022 where LA basin gas plants ramped up generation, selling power back to the state grid and emitting additional pollutants into nearby neighborhoods.[164] The DEIR should but fails to evaluate and disclose the acute emissions contribution these power plants could have under stressed load conditions on extreme weather days that are likely to already have poor air quality.

P95-35 (cont'd)

Furthermore, even using the DEIR's faulty baseline as detailed in Section II.C above, it fails to consider potentially significant NOx emissions *increases* from combusting hydrogen blends. Hydrogen blends have been shown to emit as much as six times as much NOx as methane.[165] The DEIR conveniently accepts vendor data that their specific hydrogen blends and methane will emit the same NOx, avoiding findings of significant impacts for NOx emissions despite considerable evidence that NOx emissions will increase from hydrogen blending.

[164] Regenerate California, California's Underperforming Gas Plants: How Extreme Heat Exposes California's Flawed Plan for Energy Reliability (June 2023), *available at* https://caleja.org/wp-content/uploads/2023/06/2023- Regenerate-Heat-Wave-Report.pdf.
[165] Sasan Saadat & Sara Gersen, *Reclaiming Hydrogen for a Renewable Future* (Aug. 2021), Earthjustice, *accessed at* https://earthjustice.org/wp-content/uploads/hydrogen_earthjustice_2021.pdf.

Last, the DEIR improperly finds that the Project would not significantly expose sensitive receptors to substantial pollutant concentrations.[166] PSE Healthy Energy's report demonstrates that within Scattergood's near vicinity are 108 childcare centers, 94 schools, 5 hospitals, 6 nursing homes, and 1 prison.[167] The pollution burden for these sensitive receptors is already 96 percent worse than the rest of the state.[168] While PSE Healthy Energy's analysis shows that these sensitive receptors would be vulnerable to increased incidences of asthma, hospital visits, and respiratory illness related mortalities, the DEIR does no such analysis to demonstrate that the many sensitive receptors in Scattergood's vicinity do not face significant impacts. P95-35 (cont'd)

2. Greenhouse gas emissions

CEQA regulations require that a lead agency must make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) quantify greenhouse gas emissions resulting from a project; and/or (2) rely on a qualitative analysis or performance based standards. 14 Cal. Code Regs. § 15064.4. The DEIR presents a surface level analysis of GHG emissions that is lacking in multiple ways. First, the DEIR does not analyze *at all* GHG emissions from hydrogen blends. It only presents operational GHG emissions for 100 percent natural gas scenarios. Even then, the analysis is lacking. The analysis does not compare GHG emissions across multiple possible capacity factors. At minimum, the analysis should look at the 10 percent capacity factor it assumes for this Project, the current 25 percent capacity factor for Scattergood, and the 40 percent capacity factor in the SLRTP. P95-36

The DEIR further does not appropriately consider lifecycle emissions. It only emissions from combustion, failing to analyze emissions from leakage, for either hydrogen blends or methane. Regarding leakage during production, transport and storage, methane already leaks from existing gas pipelines, at rates higher than initially understood, and it is likely that hydrogen-a much smaller molecule-may pose an even higher leakage risk, posing climate and safety concerns. Therefore, analysis of the GHG effects of hydrogen (including from leakage)

[166] DEIR at 4.2-39 – 4.2-40.
[167] PSE Healthy Energy Report at 8, Table 1.
[168] *Id.* at 9.

should also be included. For example, one study cautions of the indirect greenhouse gas effects of hydrogen, stating:

> Hydrogen-based energy systems appear to be an attractive proposition in providing a future replacement for the current fossil-fuel based energy systems. Hydrogen is an important, though little studied, trace component of the atmosphere. It is present at the mixing ratio of about 510 ppb currently and has important man-made and natural sources. Because hydrogen reacts with tropospheric hydroxyl radicals, emissions of hydrogen to the atmosphere perturb the distributions of methane and ozone, the second and third most important greenhouse gases after carbon dioxide. Hydrogen is therefore an indirect greenhouse gas with a global warming potential GWP of 5.8 over a 100-year time horizon. A future hydrogen economy would therefore have greenhouse consequences and would not be free from climate perturbations. If a global hydrogen economy replaced the current fossil fuel-based energy system and exhibited a leakage rate of 1%, then it would produce a climate impact of 0.6% of the current fossil fuel- based system. Careful attention must be given to reduce to a minimum the leakage of hydrogen from the synthesis, storage, and use of hydrogen in a future global hydrogen economy if the full climate benefits are to be realized.[169]

P95-36 (cont'd)

Indeed, a high-risk scenario based on hydrogen demand from the International Energy Agency ("IEA") net-zero scenario (528 million tons [Mt] by 2050) (IEA 2021) could potentially lead to a 5.6 percent economy-wide leakage rate.

The DEIR fails to account at all for non-pipeline transportation-related hydrogen emissions as well. As the PSE Healthy Energy Report points out, until pipeline infrastructure is built out, hydrogen will likely have to be trucked into Scattergood.[170] Scattergood's operational emissions could be significantly impacted depending on whether clean or diesel trucks are used to transport this hydrogen. And these trucking impacts could be significant: PSE Healthy Energy calculated that Scattergood would require 15-24 trucks daily traveling from large distances outside the LA basin.[171]

Because of fuel availability concerns, Scattergood will likely require on-site hydrogen storage. Again, the impacts associated with this storage, including considerable GHG emissions from the energy required compress and store hydrogen blends and/or methane are not considered

[169] See Zhiyuan Fan et al., Hydrogen Leakage: A Potential Risk for the Hydrogen Economy, Columbia Center on Global Energy Policy (July 2022), *available at* https://www.energypolicy.columbia.edu/sites/default/files/file-uploads/HydrogenLeakageRegulations_CGEP_Commentary_070722_0.pdf.
[170] PSE Healthy Energy Report at 28.
[171] *Id.*

at all in the DEIR. As the PSE Healthy Energy Report notes, because of hydrogen's density, it would likely have to be liquefied and stored cryogenically or compressed, each of which is an energy intensive process. Liquefaction could reduce 35-45 percent of hydrogen's heating value, impacting its emissions as well because of the energy needed for just the liquefaction and storage processes themselves.[172]

Last, the DEIR does not contain certain details fundamental to an analysis of GHG emissions. For example, the DEIR fails to succinctly describe which construction activities were considered to determine whether GHG emissions were a significant impact on the environment. Without a clear description of construction activities considered, we are not confident that the DEIR includes an analysis on all components of construction. For example, the project references the removal of "existing Units 1 and 2." The DEIR bases environmental "benefits" on the baseline that Units 1 and 2 are removed,[173] but fails to incorporate the environmental impacts caused by the removal of those units—*i.e.*, demolition, remediation, transporting construction materials and/or debris. Additionally, the DEIR references the need to install "a new dedicated wastewater pipeline" to transmit wastewater from the proposed project to Hyperion WRP for treatment.[174] Again, the DEIR fails to include an analysis of potential GHG emissions caused by the transportation of materials, actual construction, and increased traffic due to construction of a new wastewater pipeline.

P95-36 (cont'd)

The PSE Healthy Energy report found that burning a 70-30 methane-hydrogen blend at the Project would reduce net GHG emissions only by 9% over burning purely methane because hydrogen has a lower energy density compared to natural gas.[175] The report also notes that these very limited GHG reductions can only be realized if the hydrogen used is produced entirely with additional clean energy that would otherwise be curtailed and if there are no leaks throughout the entirety of the hydrogen production and transmission system.

The DEIR's finding of less than significant GHG emissions is therefore fundamentally flawed, as it fails to evaluate at all potentially significant hydrogen related GHG emissions.

3. Hazards and hazardous materials

P95-37

[172] *Id.* at 28-29.
[173] DEIR at 3-17.
[174] *Id.* at 3-15.
[175] PSE Healthy Energy Report at 29.

The DEIR does not analyze potentially significant environmental impacts stemming from hazards and hazardous materials handled on the project site or created in the normal operation of the power station. A lead "agency's inadequate or conclusory discussion of a potentially substantial adverse" environmental impact "constitutes a prejudicial abuse of discretion." (*People ex rel. Bonta v. County of Lake*, 105 Cal. App. 5th 1222, 1231 (2024) (*Citing Sierra Club v. County of Fresno*, 6 Cal. 5th 502 (2018)).) The project will result in toxic waste streams with potentially significant environmental impacts. In this instance, LADWP's discussion of the project's hazards is inadequate and conclusory.

LADWP's discussion of the project waste management plan is inadequate because it does not address hazards or hazardous materials from (1) decommissioning and demolition of Scattergood Units 1 and 2 or (2) electrolytic hydrogen waste-streams. An DEIR's impact discussion is inadequate when it deprives the public of information necessary to understand and consider meaningfully the issues raised by the proposed project. (*Sierra Club v. County of Fresno*, 6 Cal. 5th at 518-19.) Decommissioning of a power station generating unit can create many serious hazards. In LADWP's 2012 Scattergood Generating Station Unit 3 Repowering Project Final DEIR, DWP identified "Based on its age and its function, Unit 3 contains several types of hazardous materials, including asbestos, lead paint, petroleum products, and potentially toxic fluids."[176] The generating Units 1 and 2 were brought into service in 1958 and 1959 approximately 15 years before Unit 3.[177] Additionally, powerplant decommissioning may involve PCBs, radioactive materials, and more.[178] Hydrogen production may also generate hazardous waste. If hydrogen is produced using electrolysis of recycled waste water, the project could result in millions of gallons of toxic wastewater concentrate which will have to be re-treated or managed, creating additional resource demands and groundwater contamination risks

P95-37 (cont'd)

[176] LADWP, *Scattergood Generating Station UNIT 3 REPOWERING PROJECT Final DEIR*, 3-7 (Aug. 2012), *available at* https://www.ladwp.com/sites/default/files/documents/Scattergood_Generation_Station_Unit_3_FEIR.pdf.
[177] Tetra Tech, *California's Coastal Power Plants: Alternative Cooling System Analysis*, 1-6 (Feb. 2008), *available at* https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/acs_analysis2008/fullreport.pdf.
[178] Brown et al., SOLID WASTE FROM THE OPERATION AND DECOMMISSIONING OF POWER PLANTS, Oak Ridge National Laboratory, (Jan. 5, 2017), pp. 67-70, *available at* https://www.energy.gov/sites/prod/files/2017/01/f34/Environment%20Baseline%20Vol.%203--Solid%20Waste%20from%20the%20Operation%20and%20Decommissioning%20of%20Power%20Plants.pdf.

for communities near stored wastewater concentrate.[179] The DEIR however discusses none of these hazards either to inform the public of their presence or describe possible mitigation measures. Rather, the DEIR merely states:

> A Waste Management Plan shall be developed by the construction contractor and reviewed and approved by LADWP, and the plan shall be implemented during construction activities. The Waste Management Plan shall include a discussion of the anticipated non-soil/sediment wastes that may be encountered or generated during the proposed project.[180]

These omissions are especially concerning because toxic materials likely to be found in generating Units 1 and 2 such as lead, asbestos, and PCBs have been previously identified at Scattergood and other LADWP power stations.[181] CEQA requires adequacy, completeness, and a good-faith effort at full disclosure, (*Kings County Farm Bureau*, 221 Cal. App. 3d at 701.), such that "the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees." (*Sierra Club v. County of Fresno*, 6 Cal. 5th at 512.) The DEIR should allow decision makers to "intelligently [take] account of environmental consequences." (Code of Regs. section 15151.) By failing to discuss or analyze the many hazards which are likely to result from this project, the DEIR fails to meet CEQA's standard for public disclosure and informed decision making.

P95-37 (cont'd)

B. The DEIR Fails to Address "Significant but Unavoidable" Air Quality Impacts and Fails to Commit to Adequate Mitigation Measures

While it is clear that air quality significance thresholds are exceeded (the DEIR admits that for at least operational VOC thresholds), the DEIR seeks to confuse an otherwise clear next step in the analysis. Under CEQA, once a project's impacts exceed the significance threshold the proponent must identify that impact as significant. The next step for the CEQA analysis is to seek feasible mitigation measures to avoid significant impacts. CEQA requires that feasible mitigation be adopted. If, after adopting all feasible mitigation, the identified impacts remain

P95-38

[179] Roya Mehrkhah, et al., *Prospective performance assessment of enhanced electrochemical oxidation technology: Insights into fundamentals and influencing factors for reducing energy requirements in industrial wastewater treatment* at 1, Environmental Technology & Innovation (2023), *available at* https://doi.org/10.1016/j.eti.2023.103336.
[180] DEIR at 4-14.
[181] LADWP, *Scattergood Generating Station UNIT 3 REPOWERING PROJECT Final DEIR*, 3-7 (Aug. 2012); LADWP, Frequently Asked Questions: PCBs at Valley Generating Station, *available at* https://www.ladwp.com/sites/default/files/documents/FAQs_ValleyGenDecoupling_FINAL_8.30.22.pdf.

significant, then the agency can do a "statement of overriding considerations" to explain to the public why the project will move forward despite its significant environmental impact. (*See* CEQA Guidelines § 15091; Pub. Res. Code § 21081.) The DEIR lacks any such explanation. Instead the DEIR includes the following justification:

> Nonetheless, it should be noted that when compared to the existing Units 1 and 2, the proposed CCGS would substantially increase fuel efficiency, thereby also reducing the emissions of air pollutants and GHGs relative to the amount of energy produced. Unlike current operations, under which the in-basin generation units provide a substantial proportion of the City's energy on a daily and annual basis, the proposed CCGS is anticipated to be operated less frequently, primarily to meet peaks in the requirement for electric power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the CCGS would be used during relatively short-term periods when renewable generation sources or transmission assets may become unavailable due to emergency circumstances (e.g., the temporary loss of critical renewable energy transmission lines caused by wildfire or earthquake).[182]

P95-38 (cont'd)

Even if this lone paragraph in the DEIR had been labeled as a statement of overriding considerations, it does not contain the level of detail or evidentiary support for Scattergood to move forward with significant and unavoidable air quality impacts. Notably, the DEIR provides no support for the statement that the CCGS is anticipated to be operated less frequently or to meet peaks. Nor does it provide support for the statement that the CCGS would be used and available in emergency circumstances. For example, there is no explanation for why hydrogen transportation infrastructure would remain resilient during a wildfire or earthquake while electric lines are negatively impacted. Finally, as noted above, there is no in-depth explanation as to the actual reliability and/or capacity needs that Scattergood is fulfilling. It is therefore impossible to assess whether significant air quality impacts are justified from a public policy perspective.

V. CONCLUSION

For the reasons stated above, the DEIR is legally deficient under CEQA by constituting improper piecemealing, failing to provide a sufficient analysis of foreseeable cumulative environmental impacts, failing to commit to a clear project description, utilizing the incorrect environmental baseline, failing to consider a reasonable range of feasible alternatives, and failing to adequately consider environmental impacts and associated mitigation measures analyzed. For

P95-39

[182] DEIR at 4.2-14.

these reasons, we urge LADWP to recirculate a new programmatic DEIR (or alternatively, a revised DEIR) for another round of public review and comment. The DEIR is insufficient for LADWP to move forward toward a final DEIR.

P95-39 (cont'd)

Thank you for your consideration of these comments by the Environmental and EJ Parties. If you have any questions concerning these comments, please contact the undersigned.

Sincerely,

/s/ Benjamin Harris
Benjamin Harris
Senior Staff Attorney
Los Angeles Waterkeeper

/s/ David Pettit
David Pettit
Senior Attorney
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/s/ Andrea Vega
Andrea Vega
Southern California Senior Organizer
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/s/ Andrea Leon-Grossman
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/s/ Heena Singh
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/s/ Lucia Marquez
Lucia Marquez
Associate Policy Director
Central Coast Alliance United
for a Sustainable Economy

Dated: April 7, 2025

Environmental & EJ Parties – Scattergood DEIR Comments Exhibit 1

P95-40

Assessment of LADWP's Draft Environmental Impact Report for Scattergood Generating Station Units 1 and 2 Green Hydrogen–Ready Modernization Project

P95-40
(cont'd)

February 2025 - Updated April 2025

Bringing science to energy policy

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Acknowledgments

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About PSE Healthy Energy

PSE Healthy Energy (PSE) is a scientific research institute generating energy and climate solutions that protect public health and the environment. PSE provides expertise in public health, environmental science, and engineering and brings science to energy policy through actionable research, communications, and advising. **Visit us at** psehealthyenergy.org and **follow us on** X @PhySciEng.

PSE Bringing science to energy policy

1. Introduction

Units 1 and 2 of the Scattergood power plant are due for retirement in 2029 to comply with once-through-cooling State Water Board regulations. LADWP is proposing to replace this capacity with thermoelectric generation using a combined-cycle generation system (CCGS) capable of using a hydrogen/gas blend of up to 30% hydrogen, herein referred to as the Project. According to the draft environmental impact report (DEIR), the Project is intended to accomplish the following goals.

> *(1) Provide resilience to maintain the reliability of the LADWP electrical power system to help meet peaks in demand that exceed available renewable generation resources and energy storage capacity as well as demand during infrequent and relatively short-term, but major, interruptions in the primary carbon-free generation and/or transmission system caused by emergency circumstances.*
> *(2) Establish a generation source that is always available, dispatchable, and local relative to the LADWP service area.*
> *(3) Provide generation capacity to support grid stability and energy demand in the Scattergood service area, which includes Los Angeles International Airport, Hyperion Water Reclamation Plant, and the western districts of the City of Los Angeles.*
> *(4) Reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system.*

P95-41

For this report, we investigated the project's environmental impacts as described in the DEIR and identified additional impacts that were not disclosed in the DEIR. We also investigated alternatives that would meet the above stated goals of the Project while avoiding its negative impacts.

2. Overview

Emissions from the Project will impact air quality in the Los Angeles area and, consequently, the health of Angelenos. Lost Angeles—South Coast Air Basin is already classified as being in extreme nonattainment for $PM_{2.5}$[1] and Ozone.[2] The proposed project's NOx, SOx, and $PM_{2.5}$ emissions will

P95-42

[1] U.S Environmental Protection Agency. (2024) PM-2.5 (2012) Designated Area/State Information. https://www3.epa.gov/airquality/greenbook/kbtc.html
[2] U.S Environmental Protection Agency. (2024) 8-Hour Ozone (2015) Nonattainment Area Partial County Descriptions. https://www3.epa.gov/airquality/greenbook/jnca.html#Ozone_8-hr.2015

contribute to the formation of secondary $PM_{2.5}$ and ozone, exacerbating and perpetuating the region's already severe air pollution problem. While the health risk assessment presented in the DEIR concluded that emissions from the Project's operations would not exceed established health thresholds, this conclusion depends on the accuracy of the underlying emissions estimates. We were unable to evaluate these estimates because the DEIR does not include details on the methodology or the emissions factors used. In particular, the NOx emissions factors for hydrogen blends are unverified, and the estimates assume the use of NOx emissions controls for which no details are provided. This omission is significant, as existing literature indicates that hydrogen combustion can elevate NOx emissions relative to methane if proper controls are not implemented.

P95-42 (cont'd)

Furthermore, the health risk assessment lacks a cumulative effects analysis as it does not evaluate emissions from the proposed facility in the context of the region's existing air pollution levels. In our analysis, we assessed the $PM_{2.5}$- and ozone-related health impacts associated with emissions from the Project to illustrate the magnitude of the public health issue. Scattergood lies in the second most populated city in the United States, with roughly 390,000 people living within a 5-mile radius of the facility, exacerbating the issue of health impacts from this Project. For an operational capacity factor of 25% (regardless of the fuel composition and vendor), we estimated that the project's emissions are associated with $PM_{2.5}$ pollution linked to approximately 2.5 statistical deaths annually, valued at roughly $35 million. The DEIR did not disclose this information to the public. We also estimated that ozone pollution associated with the Project's emissions could result in approximately 409 asthma exacerbations, 136 ozone-related school loss days due to illness, and 54 PM-related work loss days, among other health impacts. These numbers will increase accordingly if the Project operates at a higher capacity. Notably, our estimates rely on the emissions data provided by the vendors in the DEIR, which, as previously mentioned, we were unable to verify.

We also find that the decision to omit any discussion or analysis of the hydrogen production, delivery, or storage infrastructure required as part of this project compromised our ability to fully and accurately determine its environmental impacts and how these impacts compare to possible project alternatives. The DEIR indicates that there is insufficient data to support this analysis given that "the green hydrogen system that would supply the proposed project is currently in the planning stages." This suggests that there is not currently enough information to produce a comprehensive environmental analysis of the Project and that the Project may not be able to simultaneously meet its reliability and emissions objectives. Additionally, the climate benefits of the 30% hydrogen by volume blend presented in the DEIR are minimal. This blend would only reduce net CO_2 emissions by around 9%, and the DEIR does not account the emissions from hydrogen transport to Scattergood or the warming potential of leaked hydrogen. In short, the DEIR lacks key information and analyses concerning hydrogen and its infrastructure, which are critical to understanding the environmental impact of the project.

We further find that the assessments of project alternatives found in the DEIR and the report contracted by NREL are incomplete and do not sufficiently investigate the viability of alternatives that have significantly lower impacts. Specifically, in NREL's report, a screening tool needlessly eliminated alternatives that are likely more economic, feasible, and market-ready than both the Project and the fuel cell alternative. This was due, in part, to unnecessarily conservative assumptions regarding the parcel size and existing demonstrations. We show here that alternatives with comparable or greater market readiness to hydrogen combustion turbines and fuel cells are able to meet the Project's goals with fewer negative impacts.. Elimination of these alternatives from economic and reliability modeling means that we still do not possess enough information regarding the feasible leading alternatives. More detailed assessments of these alternatives would allow LADWP and the public to better evaluate the Project and identify pathways to avoid most of the environmental impacts of the proposed CCGS while providing additional environmental and resilience benefits.

P95-42 (cont'd)

Finally, we have found inconsistencies between the DEIR and other reports upon which the DEIR relies. First, the DEIR describes a facility with a capacity factor "significantly less than 25%." However, LADWP's 2022 Strategic Long-Term Resource Plan (SLTRP) quotes a capacity factor of approximately 40% in 2030.[3] This higher capacity factor would result in higher negative air quality, public health, greenhouse gas emissions, and other impacts. The FEIR (Final Environmental Impact Report) must clarify the actual projected operational capacity factor because such information is critical to understanding and quantifying LADWP's reliability objectives stated above and to accurately assess the sufficiency of proposed alternatives. Drastically different energy resources are needed to serve different capacity factors and generation intervals. Moreover, LADWP plans to use 100% hydrogen for all in-basin combustion by 2035,[4] which means that either this Project would need to also be able to burn 100% hydrogen, which is not stated in the DEIR, or an upgrade to the Project would be needed within 5 years of coming online. Regardless, the impacts over the lifespan of this Project are not reported for this 100% hydrogen scenario. LADWP should clarify the Project's intended capacity factor and hourly dispatch assumptions and then disclose all environmental impacts resulting from updated project operations estimates in the FEIR.

3. Demographic and Environmental Equity Considerations

The Project is located in a highly populated area with multiple sensitive receptors within a 5-mile radius. Furthermore, various air pollution sources are located in the Scattergood vicinity, including the airport, refineries, and highways—this area of California has been historically burdened with some of the worst air pollution in all of the state. Impacts from the project, then, would perpetuate environmental burdens on the nearby communities.

P95-43

[3] California Air Resources Board. (2022). Figure 4-18 of 2022 Scoping Plan for Achieving Carbon Neutrality. https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp.pdf

[4] Los Angeles Department of Water and Power. (2022). 2022 Power Strategic Long-Term Resources Plan. https://www.ladwp.com/sites/default/files/2023-08/2022%20LADWP%20Power%20Strategic%20Long-Term%20Resource%20Plan_0.pdf

a. Methods

We used data from the California Office of Environmental Health Hazard Assessment's (OEHHA) California Communities Environmental Health Screening Tool (CalEnviroScreen)[5] and the U.S. Census to analyze nearby populations and the environmental burdens that they face. CalEnviroScreen provides data for environmental and socioeconomic indicators for every census tract in California. For demographics (i.e. total population, people of color, population under age 5, and population over 64), we used data from the 2020 decennial census. We used the U.S. EPA's EJScreen tool methodology[6] to calculate the population-weighted values for each CalEnviroScreen indicator and the overall CalEnviroScreen score for a 5-mile radius buffer around the Scattergood facility and ranked the value against census tracts in the state. The CalEnviroScreen score combines information about population characteristics and pollution burden into a single score and the percentile rank is used to give insight into the vulnerability of the tract compared to other tracts in the state. Using data from Homeland Infrastructure Foundation-Level Data (HIFLD),[7] we also calculated the number of sensitive facilities (i.e. childcare centers, schools, hospitals, nursing homes, and prisons) within a 5-mile radius buffer.

P95-43 (cont'd)

b. Findings

Approximately 386,000 people live within a 5-mile radius of Scattergood. The area (within 5 miles) is in the top 25% of all CalEnviroScreen scores statewide, meaning the community is already overburdened and highly sensitive to further environmental stressors (**Table 1**, **Figure 1**).

P95-44

Vulnerable populations, such as children and older adults, may be more susceptible than the average person to adverse health effects from pollution. Over a hundred schools and childcare centers and a few nursing homes are located nearby (**Table 1**). Socioeconomic factors, such as poverty and unemployment, and education, all play a role in communities' well-being and resilience. Near Scattergood, 27% of households were living in poverty and 14% had less than a high school education, both of which are slightly below the state average.

[5] California Office of Environmental Health Hazards Assessment. (2021). CalEnviroScreen 4.0. https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

[6] U.S Environmental Protection Agency. (2024) Environmental Justice Mapping and Screening Tool. https://www.epa.gov/system/files/documents/2024-07/ejscreen-tech-doc-version-2-3.pdf.

[7] U.S. Department of Homeland Security Geospatial Management Office. (n.d). HIFLD Open. https://hifld-geoplatform.hub.arcgis.com/pages/hifld-open

P95-44
(cont'd)

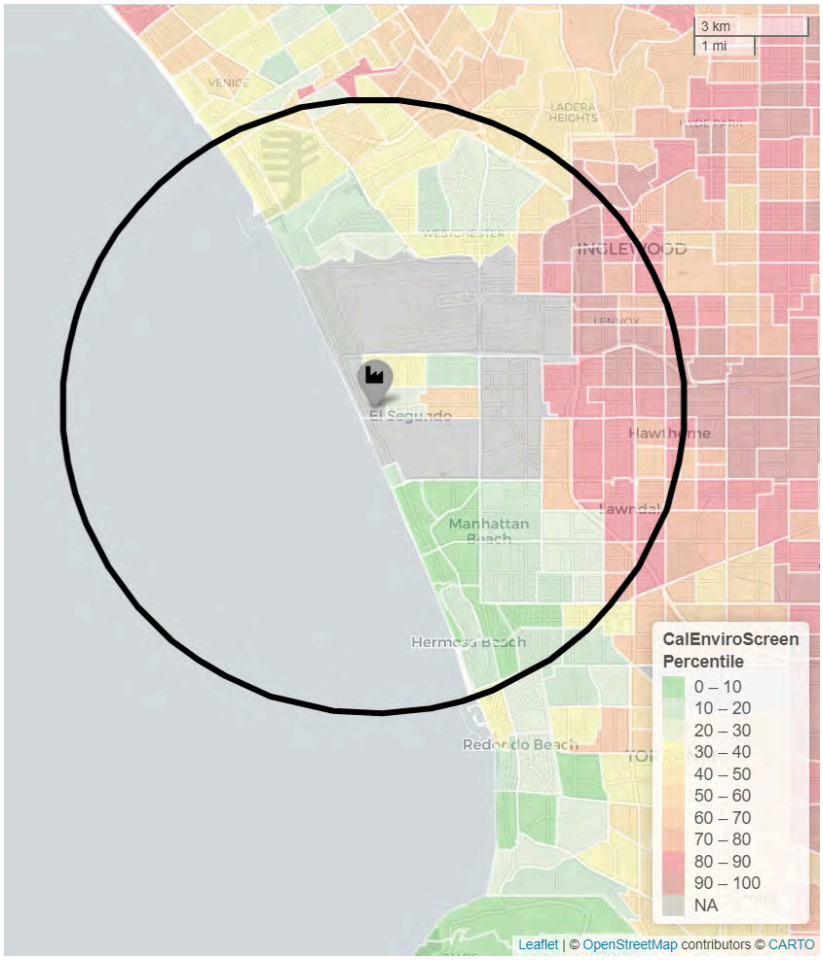

Figure 1. CalEnviroScreen census tract percentiles and the 5-mile radius buffer around Scattergood. A few tracts within the 5-mile buffer do not have a CalEnviroScreen score as a result of low or no population.

Table 1: Demographics within a 5-mile radius of the Scattergood power plant in California.

	5 miles buffer	State Average
CalEnviroScreen Percentile	78	
Total Population	386,236	
% People of Color	62%	62%
% Under Age 5	5%	5%
% Over Age 64	13%	16%
% of Households in Poverty (≤200% of the federal poverty level)	27%	28%
% Unemployment	5%	6%
% Less than High School Education	14%	16%
Number of Childcare Centers	108*	
Number of Schools	94	
Number of Hospitals	5	
Number of Nursing Homes	6	
Number of Prisons	1	

*Includes childcare centers located at schools

P95-44 (cont'd)

The pollution burden is extremely high (>96% of the state) within the 5-mile buffer (Table 2). Most of the individual environmental indicators available in CalEnviroScreen had values greater than 50% of the census tracts in the state. For example, the toxic releases from facilities indicator is the concentration of modeled chemical releases to the air weighted by toxicity. The value of this indicator within the 5-mile buffer was 5,047, which is higher than 93% of the tracts in California. Other environmental indicators related to air pollution such as annual mean $PM_{2.5}$ concentration, diesel PM emissions, toxic releases from facilities, and traffic impacts were also high (>70th percentile). Additionally, parts of Los Angeles County, where Scattergood is located, are designated as a severe nonattainment and extreme nonattainment for the 8-Hour Ozone National Ambient Air Quality

P95-45

Standard (NAAQS) and serious nonattainment for the annual $PM_{2.5}$ NAAQS.[8],[9] For Scattergood specifically, 48% of the total annual generation occurred on days that exceeded the ozone NAAQs and 6 percent on days that exceeded the $PM_{2.5}$ NAAQS in 2018 when Scattergood operated at a capacity factor of 17 percent.[10]

P95-45 (cont'd)

Communities living nearby are facing multiple sources of pollution in addition to Scattergood, such as the Los Angeles International Airport, the Chevron Oil Refinery, other industrial sites, and highways. They may also face air quality impacts from wildfires in the region. Overall, the pollution burden of the population within the Project's 5-mile radius is higher than 96% of the census tracts in the state (**Table 2**).

[8] U.S Environmental Protection Agency. (2024) 8-Hour Ozone (2015) Nonattainment Area Partial County Descriptions. https://www3.epa.gov/airquality/greenbook/jnca.html#Ozone_8-hr.2015

[9] U.S Environmental Protection Agency. (2024) PM-2.5 (2012) Designated Area/State Information. https://www3.epa.gov/airquality/greenbook/kbtc.html

[10] Krieger, E., Kwoka, B., Lukanov, B. (2024). Green Hydrogen Proposals Across California. PSE Healthy Energy. https://www.psehealthyenergy.org/wp-content/uploads/2024/05/Green-Hydrogen-Proposals-Across-California.pdf

Table 2: Environmental burden within a 5-mile radius of the Scattergood power plant in California.

	Value within 5 miles	Percentile
Overall Pollution Burden		96
Annual Mean Concentration of $PM_{2.5}$ (µg/m3)	11.91	73
Diesel PM Emissions (tons/year)	0.32	78
Pesticide Use (lbs/sq. mi.)	1.24	80
Toxic Release From Facilities (toxicity-weighted concentration)	5,047	93
Traffic Impacts (traffic density)	1,559	79
Cleanup Sites (weighted sites)	8.1	69
Groundwater Threats (weighted sites)	22.60	79
Hazardous Waste Generators and Facilities (weighted sites)	1.44	90
Impaired Water Bodies (number of pollutants)	5.84	71
Solid Waste Sites and Facilities (weighted sites)	1.61	69

P95-45 (cont'd)

4. Public Health Impacts from the Project's Stack Emissions

Given that the location of the Project is in an area of extreme nonattainment for $PM_{2.5}$ and ozone and its 30-year projected timeline of emissions, quantification of the variety of health impacts from $PM_{2.5}$ emissions and emissions of ozone precursors is crucial to accurately capture how the Project will impact public health.

P95-46

$PM_{2.5}$ exposure is associated with various adverse health outcomes, including increased rates of respiratory and cardiovascular diseases and premature mortality.[11] $PM_{2.5}$ is small enough to penetrate the lungs and enter the bloodstream, triggering inflammation, oxidative stress, and systemic health effects.[12] $PM_{2.5}$ exposure has been associated with health conditions such as asthma, bronchitis, heart attacks, strokes, and lung cancer. Vulnerable populations, such as children, older people, and individuals with pre-existing conditions, are particularly at risk due to their physiology.[13]

Ground-level ozone (commonly known as "smog") is a powerful oxidant; upon contact, ozone can kill the cells lining the airways, damaging respiratory tissue.[14] Exposure to ozone is associated with inflammation and irritation of respiratory airways, reducing the amount of air that lungs breathe, causing symptoms such as coughing and chest tightness, and worsening of asthma symptoms. Higher ozone concentrations are associated with increases in asthma attacks, hospital admissions, and premature mortality, especially in older adults.[15] People with asthma are potentially at increased risk to health impacts as ozone exposure may worsen someone's underlying asthma status, thereby requiring more treatment.

P95-46 (cont'd)

Quantifying the potential $PM_{2.5}$- and ozone- attributable health impacts resulting from the Scattergood project is critical to understanding the project's potential impact on communities.

While the DEIR performs multiple health assessments, we find that gaps remain in order to more completely quantify the Project's health impacts. The Scattergood Modernization Report Appendix B (hereafter referred to as Appendix B) includes a health risk assessment (HRA) evaluating multiple toxic air compounds (TACs) and a comparison of modeled 1-hour, 8-hour, and 24-hour criteria air pollutant concentrations to the NAAQS, California Ambient Air Quality Standards (CAAQS), and South Coast Air

P95-47

[11] California Air Resources Board. Inhalable Particulate Matter and Health (PM2.5 and PM10. https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health#:~:text=For%20PM2.,symptoms%2C%20and%20restricted%20activity%20days. Accessed Feb 11, 2025.

[12] Hamanaka, R. B., and Mutlu, G. M. 2018. Particulate Matter Air Pollution: Effects on the Cardiovascular System. *Frontiers in Endocrinology.* 9:680. doi: 10.3389/fendo.2018.00680

[13] California Air Resources Board. Inhalable Particulate Matter and Health (PM2.5 and PM10. https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health#:~:text=For%20PM2.,symptoms%2C%20and%20restricted%20activity%20days. Accessed Feb 11, 2025

[14] California Air Resources Board. Ozone & Health. https://ww2.arb.ca.gov/resources/ozone-and-health#:~:text=Where%20does%20ozone%20come%20from,paints%2C%20and%20many%20other%20sources. Accessed Feb 11, 2025

[15] U.S. EPA. 2024. Health Effects of Ozone in the General Population. https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population. Accessed Feb 11, 2025.

Quality Management District (SCAQMD) Air Quality Significance Thresholds.[16,17,18] The authors concluded that the estimated Maximum Individual Cancer Risk and chronic hazard indices are below established thresholds and that the project operations would not cause an exceedance of the SCAQMD's 24-hour average $PM_{2.5}$ concentration thresholds. However, the evaluation is based on comparing the difference between the Project's emissions and the current emissions from Units 1 and 2 to the thresholds. When the Project's absolute emissions (rather than the difference) are compared to thresholds, volatile organic compounds (VOCs), NOx, CO, and $PM_{2.5}$ are all in exceedance of the SCAQMD's 24-hour significance thresholds regardless of vendor or fuel (DEIR Table 4.2-14). Furthermore, the HRA and modeling analysis does not consider the project's impact on annual $PM_{2.5}$ concentrations in the county to national and federal air quality standards. Additionally, the HRA and modeling analysis do not assess the health impacts from the project's contributions to secondary $PM_{2.5}$ and ozone formation. This is particularly relevant to the community surrounding the Project as it is located in an area of extreme nonattainment for both contaminants.

P95-47 (cont'd)

P95-48

The DEIR did not evaluate long-term and cumulative health impacts from $PM_{2.5}$ exposure. The DEIR's modeling analysis omitted a comparison to the NAAQS and CAAQS annual average $PM_{2.5}$ standards. While the DEIR's modeling analysis does compare to the SCAQMD significance thresholds for $PM_{2.5}$, these standards only exist for 24-hour averages, meaning the DEIR does not consider long-term exposure (e.g., annual)in its analysis of health impacts. Additionally, the DEIR's comparison to SCAQMD significance thresholds did not include existing background concentration levels of $PM_{2.5}$. Furthermore, the comparisons to thresholds reported in the DEIR are based on the difference between modeled and current Unit 1 and 2 emissions which obscures the true impact the Project will have on air quality. As the Project is located in an area of nonattainment for NAAQS and CAAQS standards, its additional $PM_{2.5}$ burden would be counter to state and federal clean air goals to achieve attainment status. The DEIR must include background $PM_{2.5}$ concentrations for an accurate comparison to the NAAQS and CAAQS 24-hour and annual average $PM_{2.5}$ standards. This inclusion would allow for a more complete assessment of cumulative impacts from the project on an already environmentally overburdened county.

P95-49

The DEIR did not evaluate health impacts from secondary $PM_{2.5}$ and ozone formation. The DEIR's HRA and modeling analysis also does not account for the harmful effects from secondary $PM_{2.5}$ and ozone formation. While primary particulate matter is directly emitted from sources, secondary particulate matter is formed in the atmosphere from chemical reactions from precursors such SO_2,

P95-50

[16] U.S EPA. (2024). National Ambient Air Quality Standards (NAAQS) Table. https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf.

[17] California Air Resources Board. California Ambient Air Quality Standards. https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed Feb 11, 2025.

[18] South Coast Air Quality Management District (SCAQMD). (2023). South Coast AQMD Air Quality Significance Thresholds. https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf.

NOx, and VOCs.[19] Similarly, ozone is formed primarily from chemical reactions between NOx and VOCs in the presence of sunlight.[20, 21] This is a particular concern for the Scattergood project due to its potential increase in SO_2 and VOC emissions when compared to baseline, as demonstrated in Table 4.2-14 and Table 4.2-15 of the DEIR. As well as the potential increase in NOx emissions from introducing hydrogen to the fuel blend.[22, 23] Given the South Coast Air Basin's nonattainment of $PM_{2.5}$[24] and ozone[25] air quality standards, no environmental assessment in this area should ignore secondary $PM_{2.5}$ and ozone pollution.

P95-50 (cont'd)

a. The DEIR's Health Impacts Modeling and Analysis Omitted Critical Information

In this analysis, we aimed to fill gaps in the DEIR HRA and modeling analysis by evaluating the potential health impacts of long-term (i.e., annual) exposure to $PM_{2.5}$ (primary and secondary) and ozone associated with the Project's emissions. However, certain limitations are predetermined in our analysis. Since no details on the assumptions and methods used in estimating the Project's emissions for both fuel types are provided, we are required to rely exclusively on emissions estimates as reported in the DEIR, without further evaluation. Outstanding questions remain, such as 1) whether emissions factors were determined using modeling, laboratory or site testing, or a combination of both, 2) whether emissions factors were verified by an independent party, and 3) what uncertainty or confidence intervals exist for reported emissions. Similarly, additional health impacts from increases in traffic demands related to hydrogen transportation are not included in this assessment because these emissions were not provided in the DEIR. This is particularly concerning as truck traffic may rely on diesel fuel, which emits diesel particulate matter, a toxic air contaminant that is a known

P95-51

P95-52

[19] California Air Resources Board. Inhalable Particulate Matter and Health (PM2.5 and PM10). https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health#:~:text=For%20PM2.,symptoms%2C%20and%20restricted%20activity%20days. Accessed Feb 11, 2025.

[20] US EPA. (2024). What is Ozone?. https://www.epa.gov/ozone-pollution-and-your-patients-health/what-ozone. Accessed Feb 11, 2025.

[21] California Air Resources Board. Ozone & Health. https://ww2.arb.ca.gov/resources/ozone-and-health#:~:text=Where%20does%20ozone%20come%20from,paints%2C%20and%20many%20other%20sources. Accessed Feb 11, 2025

[22] Cellek, M. S., & Pınarbaşı, A. (2018). Investigations on performance and emission characteristics of an industrial low swirl burner while burning natural gas, methane, hydrogen-enriched natural gas and hydrogen as fuels. *International Journal of Hydrogen Energy*, 43(2), 1194-1207.

[23] Therkelsen, P., Werts, T., McDonell, V., & Samuelsen, S. (2009). Analysis of NO x Formation in a Hydrogen-Fueled Gas Turbine Engine. *Journal of Engineering for Gas Turbines and Power*.

[24] U.S Environmental Protection Agency. (2024) PM-2.5 (2012) Designated Area/State Information. https://www3.epa.gov/airquality/greenbook/kbtc.html

[25] U.S Environmental Protection Agency. (2024) 8-Hour Ozone (2015) Nonattainment Area Partial County Descriptions. https://www3.epa.gov/airquality/greenbook/jnca.html#Ozone_8-hr.2015

carcinogen with the same non-cancer health effects as PM2.5.[26] Estimates attribute 70% of the total known cancer risk from air toxics in California to diesel particulate matter.[27]

P95-52 (cont'd)

The Intervention Model Air Pollution (InMAP) is a peer-reviewed tool that estimates in high geospatial resolution (up to 1 km grid in highly populated areas) how changes in primary $PM_{2.5}$ and $PM_{2.5}$ precursor emissions influence atmospheric $PM_{2.5}$ concentrations and, consequently, premature mortality.[28] The tool takes inputs of $PM_{2.5}$, VOC, NOx, and SOx emissions to calculate changes in annual atmospheric $PM_{2.5}$ concentrations. Then, based on a concentration-response function from the epidemiological literature, an estimate of statistical mortality linked to $PM_{2.5}$ changes is generated. For this analysis, we used the concentration-response function from Qian Di et al.[29] Then, to quantify the monetary value of the estimated mortality, we used the EPA's 2023 Value of a Statistical Life (VSL) of $14,012,045.[30]

P95-53

We used InMAP to model the annual $PM_{2.5}$-related mortality impacts of Vendors B (the preferred Vendor) and C (the vendor with, on average, slightly lower emissions) based on emissions data reported in Appendix B of the Scattergood DEIR (Table 4-13).[31] Our analysis incorporates total daily emissions from operations (assuming peak emissions are maintained throughout the day) and emissions from one daily startup and shutdown. We scaled the daily emissions to tons per year to estimate maximum annual emissions, assuming one startup and shutdown per day. Since the operating capacity factor of the proposed CCGS is still unknown, we evaluated three potential scenarios: 10%, 25%, and 40%. The 25% capacity factor reflects the historical operation of Units 1 and 2, while the 40% capacity factor aligns with the SLTRP's projection for the Scattergood facility in 2030.[32] Additionally, we assessed health impacts for a 10% capacity factor, as the Scattergood DEIR indicates that the updated unit will operate at a reduced capacity compared to the existing units. Emissions estimates for each capacity factor were derived from the maximum annual emissions (**Table 3**).

P95-54

[26] California Air Resources Board. Overview: Diesel Exhaust & Health. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health.
[27] ibid.
[28] Tessum, C. W., Hill, J. D., & Marshall, J. D. (2017). InMAP: A model for air pollution interventions. *PloS one*, 12(4), e0176131.
[29] Di, Q., Wang, Y., Zanobetti, A., Wang, Y., Koutrakis, P., Choirat, C., ... & Schwartz, J. D. (2017). Air pollution and mortality in the Medicare population. *New England Journal of Medicine*, 376(26), 2513-2522.
[30] COBRA User Manual v5.1, page F-2, Exhibit F-2. https://www.epa.gov/system/files/documents/2024-06/cobra-user-manual-v5.1.pdf.
[31] LADWP Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project DEIR. October 2024 Appendix B. Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis Report. https://www.ladwp.com/sites/default/files/2024-10/Scattergood%20Modernization%20Project%20-%20Appendix%20B%20-%20Air%20Quality%2C%20GHG%2C%20HRA%20Report.pdf.
[32] Los Angeles Department of Water and Power. (2022). 2022 Power Strategic Long-Term Resources Plan. Figure 4-18. https://www.ladwp.com/sites/default/files/2023-08/2022%20LADWP%20Power%20Strategic%20Long-Term%20Resource%20Plan_0.pdf. Accessed Feb 11, 2025.

The InMAP analysis framework is used to evaluate the impact of both primary and secondary $PM_{2.5}$ on statistical mortality. However, $PM_{2.5}$ is linked to a range of adverse health outcomes beyond mortality, including asthma incidence and exacerbation, emergency department visits for respiratory illnesses, and cardiovascular disease. Additionally, emissions from the proposed Project will contribute to ground-level ozone formation—a pollutant associated with premature mortality and other adverse health effects.[33] To provide a more comprehensive evaluation of the Project's health impacts, we supplement the InMAP analysis with an assessment using the Environmental Protection Agency's (EPA) Co-Benefits Risk Assessment (COBRA) tool.[34]

P95-54 (cont'd)

COBRA estimates changes in atmospheric $PM_{2.5}$ and ozone concentrations resulting from emissions of primary $PM_{2.5}$, VOCs, NOx, and SOx. It then quantifies the impact of annual $PM_{2.5}$ changes on a variety of adverse health outcomes and calculates their associated monetary value (using EPA's 2023 VSL). While COBRA employs a methodology similar to InMAP, the two tools differ in their underlying atmospheric chemistry models, concentration-response functions, and demographic data. Notably, COBRA estimates ozone-related health impacts—which InMAP does not—and evaluates a broader range of health endpoints. In contrast, InMAP focuses exclusively on mortality. However, COBRA's geospatial resolution is limited to the county level, which can lead to less accurate health impact estimates in large counties with substantial heterogeneity in air pollution levels and population distribution,[35, 36] such as Los Angeles. For this reason, we used COBRA only to obtain a rough estimate of ozone-related health impacts and the morbidity outcomes associated with $PM_{2.5}$ and ozone.

Using COBRA, we analyzed the annual health impacts of Vendor B 100% gas at a 10%, 25%, and 40% capacity factor. Similar to the InMAP analysis, we derived maximum annual emissions from the total peak daily emissions reported in Appendix B of the Scattergood DEIR (Table 4-13)[37] and then scaled them to the respective capacity factor for use as inputs in the COBRA model.

[33] American Lung Association. What Makes Air Unhealthy: Ozone. https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/ozone. Accessed Feb 11, 2025.
[34] COBRA User Manual v5.1. https://www.epa.gov/system/files/documents/2024-06/cobra-user-manual-v5.1.pdf.
[35] Paolella, David A., et al. "Effect of model spatial resolution on estimates of fine particulate matter exposure and exposure disparities in the United States." *Environmental Science & Technology Letters* 5.7 (2018): 436-441
[36] Goodkind, Andrew L., et al. "Fine-scale damage estimates of particulate matter air pollution reveal opportunities for location-specific mitigation of emissions." *Proceedings of the National Academy of Sciences* 116.18 (2019): 8775-8780
[37] LADWP Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project DEIR. October 2024 Appendix B. Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis Report. https://www.ladwp.com/sites/default/files/2024-10/Scattergood%20Modernization%20Project%20-%20Appendix%20B%20-%20Air%20Quality%2C%20GHG%2C%20HRA%20Report.pdf.

Table 3: **Air Pollution Emissions**. Annual emissions from the Project used in the InMAP and COBRA analysis. These emissions were calculated from the total daily peak emissions (including start-up and shutdown emissions) provided in Appendix B Table 4-13.[38]

Capacity factor	Vendor B (tons/year)		Vendor C (tons/year)	
	100% Gas	70% Gas & 30% Hydrogen	100% Gas	70% Gas & 30% Hydrogen
VOC:				
10%	17.04	16.97	4.59	4.55
25%	42.61	42.43	11.49	11.38
40%	68.18	67.89	18.39	18.22
NOx:				
10	10.45	10.45	8.74	8.57
25	26.14	26.14	21.85	21.43
40	41.82	41.82	34.96	34.29
SOx:				
10	0.86	0.77	0.73	0.64
25	2.17	1.93	1.82	1.61
40	3.47	3.09	2.92	2.58
PM2.5:				
10	4.35	4.12	3.96	4.27
25	10.89	10.31	9.90	10.67
40	17.43	16.49	15.84	17.082

P95-54 (cont'd)

b. Health Impacts Results and Discussion

P95-55

Combined-cycle generators based on natural gas combustion emit various air pollutants. Transitioning from natural gas fuel to a hydrogen blend would decrease emissions of toxic air pollutants associated

[38] ibid.

with fossil fuel combustion such as VOCs and primary $PM_{2.5}$.[39] However, studies have shown that hydrogen combustion can lead to higher NOx emissions compared to natural gas if the proper control technologies are not used.[40, 41] We observed that air pollution emissions reported in the DEIR do not vary substantially based on the fuel type, which is extremely unusual. Due to insufficient details in the DEIR regarding both the emissions modeling methodology and the planned NOx control technology, we are unable to assess the validity of the reported emissions. Emissions from the 100% natural gas scenario (regardless of the vendor) are nearly identical to those from the 70% natural gas and 30% hydrogen scenarios. Consequently, we do not expect, based on the provided emissions data, notable air quality or health benefits from using a 30% hydrogen fuel blend. For Vendor C, primary $PM_{2.5}$ emissions are actually higher in the 70/30 fuel blend compared to the 100% natural gas scenario. Given the minimal differences in emissions across vendors and fuel types, the capacity factor emerged as the primary determinant of the magnitude of health impacts and their associated monetary value in our analysis.

P95-55 (cont'd)

Our InMAP analysis indicates that the health impacts of the Project could be substantial. Operation with a 25% capacity factor, roughly the historical average for Units 1 and 2 as stated in the DEIR, would result in 2.2 to 2.7 annual $PM_{2.5}$-related mortalities nationwide (**Table 4**), with a monetary value of $31.6 to $38.0 million annually. Over a typical 30-year lifespan, these impacts would accumulate to **67.8 to 81.3 PM2.5-related mortalities valued at about $1 billion**. The SLTRP anticipates a base case capacity factor of 40% by 2030, which can result in even greater health impacts as seen in **Table 4**. Emissions under the 10% capacity factor scenario are lower but still linked with approximately one $PM_{2.5}$-related mortality annually, amounting to roughly 30 $PM_{2.5}$-related mortalities over the unit's lifetime valued at over $400 million.

Using COBRA, we estimated ozone-related mortality and $PM_{2.5}$- and ozone-related morbidity impacts, which were not calculated in the InMAP analysis. These health impacts are based on vendor B emission at a 100% natural gas fuel and 10%, 25%, and 40% capacity factor. Given the minimal variation in the emissions reported in the DEIR, the health impact estimates for the other vendors and fuel compositions are expected to be similar. Annually, assuming a 25% capacity factor, the ozone-related mortality impact has a monetary value of approximately $2 million, and the total annual $PM_{2.5}$- and ozone-related morbidity monetary impacts are around $600,000. These include 409 annual asthma exacerbations, 136 ozone-related school loss days due to illness, and 54 PM-related work loss days, among others (**Table 5**). These values increase accordingly under a 40% capacity factor (**Table 6**).

[39] Montero-Montoya, R., López-Vargas, R., & Arellano-Aguilar, O. (2018). Volatile organic compounds in air: sources, distribution, exposure and associated illnesses in children. *Annals of global health*, *84*(2), 225.
[40] Shilling, N. Z. (2023). Emissions and Performance Implications of Hydrogen Fuel in Heavy Duty Gas Turbines. Clean Air Task Force. https://cdn.catf.us/wp-content/uploads/2023/07/13144950/emissions-performance-implications-hydrogen-fuel-heavy-duty-gas-turbines.pdf
[41] Electric Power Research Institute. (2022). Executive Summary: Hydrogen Cofiring Demonstration at New York Power Authority's Brentwood Site: GE LM6000 Gas Turbine. Low-Carbon Resources Initiative. https://www.epri.com/research/products/000000003002025166.

Furthermore, these results are likely an underestimate given COBRA's course geospatial resolution. COBRA analysis at the county level does not capture the heterogeneity of the population and pollution distribution which is mainly concentrated in the Los Angeles City area, where the Scattergood facility is located.

While the health impacts of the proposed unit's emissions would extend more broadly, most effects would be on the nearby communities (**Figure 1**). For Vendor B, 100% gas at 25% capacity factor, the estimated per capita health impact in El Segundo ranges from $100 to $600 annually (estimates for Vendor C and other fuel scenarios are similar). Given that Scattergood is located in the Los Angeles basin, the second most populous city in the US, the emissions impact a large population resulting in substantial health impacts per capita. Air pollutants emissions in densely populated areas pose greater impact due to the large number of people exposed. Consequently, Scattergood nearby communities experience not only the highest per capita health impact due to their proximity but also the greatest total impact relative to further away communities, driven by the region's dense population (**Figure 2**). P95-55 (cont'd)

Our health impacts evaluation has a number of limitations, for instance, the InMAP and COBRA analyses capture only the health impacts associated with primary and secondary $PM_{2.5}$, and ozone in the case of COBRA. These analyses do not account for the direct health impacts of NOx and VOCs, meaning the estimates presented in this report likely underestimate the full extent of the Project's public health impacts. NOx is a known respiratory irritant that can inflame the airways, exacerbate conditions such as asthma and chronic obstructive pulmonary disease, and increase the risk of respiratory infections.[42,43] Similarly, exposure to certain VOCs is associated with various health risks, including liver and kidney damage, central nervous system impairment, and an elevated risk of cancer.[44] Furthermore, our health impacts analysis included only emissions from the unit operation and did not consider emissions from the construction, projected to last 3.5 years, and the commissioning phases. Notably, in the Scattergood Modernization Project Appendix B,[45] the authors mentioned that PM_{10} and $PM_{2.5}$ are the pollutants of greatest concern in the construction phase, which we did not include in our estimates.

The transition to renewable energy offers a significant opportunity to enhance air quality and, by extension, public health. Cities like Los Angeles, which are heavily burdened by air pollution, would P95-56

[42] US EPA. Basic Information about NO2. https://www.epa.gov/no2-pollution/basic-information-about-no2. Accessed Feb 11, 2025.
[43] American Lung Association. What Makes Air Unhealthy: Nitrogen Dioxide. https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/nitrogen-dioxide. Accessed Feb 11, 2025.
[44] American Lung Association. What Makes Air Unhealthy: Volatile Organic Compounds. https://www.lung.org/clean-air/indoor-air/indoor-air-pollutants/volatile-organic-compounds. Accessed Feb 11, 2025
[45] LADWP Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project DEIR. October 2024 Appendix B. Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis Report. https://www.ladwp.com/sites/default/files/2024-10/Scattergood%20Modernization%20Project%20-%20Appendix%20B%20-%20Air%20Quality%2C%20GHG%2C%20HRA%20Report.pdf.

benefit substantially from adopting renewable technologies that minimize adverse air quality impacts—such as fuel cells and energy storage systems. In contrast, hydrogen combustion produces NOx emissions that, if not adequately controlled, may diminish the air quality benefits gained from reducing fossil fuel combustion. Additionally, transporting hydrogen by truck to the facility—given the lack of dedicated hydrogen pipelines—would further exacerbate air pollution. Our analysis of the proposed CCGS project, which utilizes a blend of natural gas and hydrogen, indicates that it is unlikely to improve air quality. Specifically, emissions of toxic pollutants and $PM_{2.5}$ precursors, including VOCs, SO_2, and $PM_{2.5}$ itself, remain on par with those observed under a 100% natural gas scenario. Over a 30-year lifetime and a 25% capacity factor, we estimated the project's health impact to be around $1 billion, irrespective of the fuel mix. Given these findings, we recommend exploring alternative renewable energy options, such as those discussed in **Section 6** below.

P95-56 (cont'd)

Table 4. InMAP Health Impact Estimates. Projected annual statistical mortality and the associated monetary value (in parenthesis) linked to the Scattergood Project. These estimates were modeled using InMAP.

P95-57

	Vendor B		**Vendor C**	
Capacity Factor (%)	100 % Gas	70% Gas & 30% Hydrogen	100% Gas	70% Gas & 30% Hydrogen
10	1.08 ($15.21 M)	1.03 ($14.48 M)	0.90 ($ 12.67 M)	0.96 ($13.47 M)
25	2.71 ($38.03 M)	2.54 ($36.21 M)	2.26 ($ 31.69 M)	2.40 ($33.66 M)
40	4.34 ($60.85 M)	4.13 ($57.94 M)	3.61 ($ 50.71 M)	3.84 ($53.86 M)

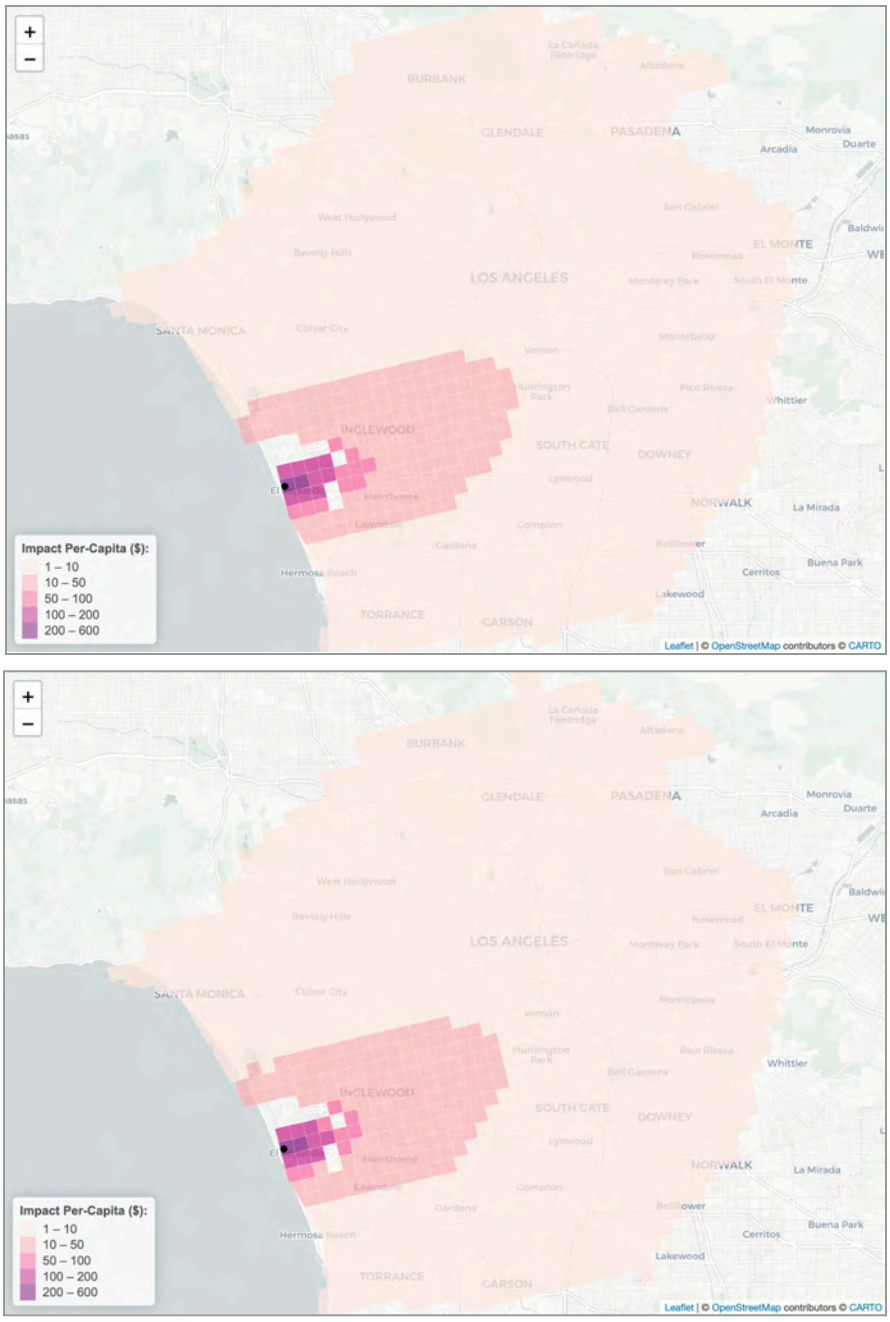

Figure 2. Annual Per Capita Impacts. Spatial distribution of annual per capita health impacts ($) associated with the Scattergood Project operating at 25% capacity factor. Top image: Vendor B, 100% natural gas. Bottom image: Vendor B, 70% natural gas and 30% hydrogen. Values are given in 2023 dollars. The location of the Scattergood plant is shown as a black dot. Maps are from InMAP model runs using emissions in Table 3 and include only mortality as a health outcome.

P95-58



Figure 3. Annual Total Impacts. Spatial distribution of total (across the population) health impacts ($) associated with the Scattergood Project operating at 25% capacity factor. Top image: Vendor B, 100% natural gas. Bottom Image: Vendor B, 70% natural gas and 30% hydrogen. Values are given in 2023 dollars. The location of the Scattergood plant is shown as a black dot. Maps are from InMAP model runs using emissions in Table 3 and include only mortality as a health outcome.

P95-59

Table 5. **COBRA Health Impact Estimates**. Annual health impacts associated with Vendor B 100% natural gas scenario, based on peak daily emissions and 25% capacity factor. These health effects were estimated using COBRA and are likely an underestimate given the coarse geospatial resolution of the modeling.

Health Endpoint	**Incidence**		**Monetary Value**	
	Low	High	Low	High
Total Health Impacts			$7,106,553	$12,192,653
Total Mortality	0.44	0.79	$6,457,957	$11,544,057
All PM-Related Mortality	0.29	0.64	$4,202,140	$9,288,240
All O3-related Mortality	0.15		$2,255,817	
Total Asthma Symptoms	409.02		$84,804	
PM-related Asthma Symptoms (Albuterol Use)	189.51		$121	
O3-related Asthma Symptoms (Chest Tightness)	60.48		$23,331	
O3-Asthma Symptoms (Cough)	71.33		$27,520	
O3-Asthma Symptoms (Shortness of Breath)	30.52		$11,774	
O3-Asthma Symptoms (Wheeze)	57.17		$22,057	
Total Asthma Incidence	2.49		$189,730	
PM-related Asthma Incidence	1.03		$78,311	
O3-related Asthma Incidence	1.46		$111,418	
Total Incidence Hay Fever Rhinitis	15.83		$17,634	
PM-related Incidence Hay Fever Rhinitis	6.53		$7,276	
O3-related Incidence Hay Fever Rhinitis	9.30		$10,358	
Total ER Visits for (Respiratory)	0.67		$1,086	
PM-related ER Visits (Respiratory)	0.23		$373	
O3-related ER Visits (Respiratory)	0.44		$714	
PM-related Nonfatal Heart Attacks	0.24		$19,848	
PM-related Minor Restricted Activity Days	317.43		$39,908	
PM-related Work Loss Days	53.96		$17,067	
O3-related School Loss Days (All Cause)	136.57		$231,941	

P95-60

Table 6. **COBRA Health Impact Estimates**. Annual health impacts associated with Vendor B 100% natural gas scenario, based on peak daily emissions and 40% capacity factor. These health effects were estimated using COBRA and are likely an underestimate given the coarse geospatial resolution of the modeling.

Health Endpoint	**Incidence**		**Monetary Value**	
	Low	High	Low	High
Total Health Impacts			$11,370,485	$19,508,244
Total Mortality	0.71	1.27	$10,332,732	$18,470,491
All PM-Related Mortality	0.46	1.02	$6,723,425	$14,861,183
All O3-related Mortality	0.25		$3,609,307	
Total Asthma Symptoms	654.43		$135,686	
PM-related Asthma Symptoms (Albuterol Use)	303.22		$194	
O3-related Asthma Symptoms (Chest Tightness)	96.76		$37,330	
O3-Asthma Symptoms (Cough)	114.14		$44,033	
O3-Asthma Symptoms (Shortness of Breath)	48.83		$18,838	
O3-Asthma Symptoms (Wheeze)	91.48		$35,291	
Total Asthma Incidence	3.98		$303,567	
PM-related Asthma Incidence	1.64		$125,298	
O3-related Asthma Incidence	2.34		$178,269	
Total Incidence Hay Fever Rhinitis	25.32		$28,214	
PM-related Incidence Hay Fever Rhinitis	10.45		$11,641	
O3-related Incidence Hay Fever Rhinitis	14.87		$16,573	
Total ER Visits for (Respiratory)	1.07		$1,738	
PM-related ER Visits (Respiratory)	0.37		$596	
O3-related ER Visits (Respiratory)	0.70		$1,142	
PM-related Nonfatal Heart Attacks	0.38		$31,756	
PM-related Minor Restricted Activity Days	507.90		$63,853	
PM-related Work Loss Days	86.33		$27,308	
O3-related School Loss Days (All Cause)	218.51		$371,105	

P95-60 (cont'd)

5. Hydrogen Impacts and Considerations

The DEIR does not adequately address the potentially significant environmental impacts of green hydrogen within this Project. The DEIR indicates that "the proposed project [i]s integral to the goal of implementing a carbon--free energy system providing reliable and sustainable electrical power for the City of Los Angeles." However, the Project as outlined will not enable carbon-free, reliable energy generation at Scattergood until there is a significant and available supply of green hydrogen and a carbon-free method of transporting it to the facility has been implemented.

P95-61

Given the still-developing nature of the U.S. green hydrogen market, the DEIR leaves "the installation of the infrastructure for the production, delivery, and storage of hydrogen" for a separate environmental review "when the necessary information to support an adequate analysis of potential impacts is available." While we are sympathetic to the lack of data and numerous unknowns surrounding the future of hydrogen in California, this infrastructure is required in order for the Project to meet its objectives and may have potentially significant environmental impacts.

a. Potential New Construction

While the DEIR assesses the impact of construction for this Project, it does not assess the impacts of the planned conversion to burn 100% hydrogen. LADWP plans to use 100% hydrogen for all in-basin combustion by 2035.[46] Unless the turbines selected for this Project are capable of operating using 100% hydrogen fuel, the Project has a maximum useful lifespan of 5 years as-is before the equipment must be upgraded or replaced. The DEIR is clear that Vendor B's turbine is not capable of operating solely on hydrogen, but does not state if Vendors A and C have this capability or would require upgrades.

P95-62

Commercial turbines capable of operating with natural gas / hydrogen blends of up to 100% hydrogen are currently confined to demonstration projects or planned projects with co-located green hydrogen production and storage. This includes a small pilot project as part of Duke Energy's DeBarry power plant in Florida, which is currently renovating one 83 MW turbine to pair with an existing 300,000-panel solar array with on site electrolyzers and hydrogen storage tanks.[47] Plans are also underway for a 200 MW power plant in Australia, but this will be part of a larger green hydrogen project with a 250 MW electrolyzer and 100 tons of hydrogen storage on-site.[48] While equipment manufacturers are testing

[46] Los Angeles Department of Water and Power. (2022). 2022 Power Strategic Long-Term Resources Plan. https://www.ladwp.com/sites/default/files/2023-08/2022%20LADWP%20Power%20Strategic%20Long-Term%20Resource%20Plan_0.pdf

[47] Patel, S. (Nov 16, 2023). Pioneering Hydrogen-Powered Gas Peaking: Inside Duke Energy's DeBarry Project. *POWER*. https://www.powermag.com/pioneering-hydrogen-powered-gas-peaking-inside-duke-energys-debary-project/

[48] Patel, S. (Nov 19, 2024). GE Vernova Unveils 100% Hydrogen-Fueled Aeroderivitive Gas Turbine Solution, Secures First Customer. *POWER*. https://www.powermag.com/ge-vernova-unveils-100-hydrogen-fueled-aeroderivative-gas-turbine-solution-secures-first-customer/

turbines capable of operating using fuel blends and up to 100% hydrogen, none appear to be commercially operational yet with the exception of specialized projects such as the above.

The environmental impact of potential turbine upgrades would depend on the level of modification required. While likely not significant on their own, these impacts are not addressed or included in the DEIR despite LADWP's plans to operate Scattergood with 100% hydrogen within 5 years of the Project's completion.

P95-62 (cont'd)

b. Greenhouse Gas Emissions

The final objective of the Project is to "reduce the emissions of greenhouse gases (GHG) from power generation consistent with the LADWP transition to a carbon-free electrical power system." While improving the efficiency of Scattergood Units 1 and 2 and operating them less frequently will lower GHG emissions compared to the existing units, LADWP relies on combusting green hydrogen to achieve a carbon-free electrical power system.

P95-63

Given the lower energy density of hydrogen compared to natural gas, a 30% by volume hydrogen blend would only reduce net CO_2 emissions by roughly 9%.[49] It would require 75% hydrogen by volume to achieve a 50% reduction in emissions and roughly 90% hydrogen by volume to achieve a 75% GHG reduction.[50] This level of emissions reduction can only be achieved if the hydrogen used is produced entirely with clean energy. This may be difficult to achieve in practice, as it requires hydrogen producers to either build dedicated renewable energy resources for their projects, use curtailed renewables that are only available during specific times in specific places, or ensure their project meets the three pillars for hydrogen produced with grid electricity (e.g., additionality, regional alignment, and time matching).[51] These GHG emissions reductions may also be offset by the emissions generated when transporting hydrogen to the facility (discussed below) and/or the impact of hydrogen leakage.

While not itself a GHG, hydrogen has indirect climate impacts when released into the atmosphere. A recent study aggregating numerous models estimated that hydrogen's warming effect was 22.3 - 52.4 times more than CO_2 over a 20 year period.[52] Blends of hydrogen and natural gas are also shown to

[49] Shilling, N. Z. (2023). Emissions and Performance Implications of Hydrogen Fuel in Heavy Duty Gas Turbines. Clean Air Task Force. https://cdn.catf.us/wp-content/uploads/2023/07/13144950/emissions-performance-implications-hydrogen-fuel-heavy-duty-gas-turbines.pdf.

[50] ibid.

[51] Krieger, E., Kwoka, B., Lukanov, B. (2024). Green Hydrogen Proposals Across California. PSE Healthy Energy. https://www.psehealthyenergy.org/wp-content/uploads/2024/05/Green-Hydrogen-Proposals-Across-California.pdf.

[52] Sand, M., Skeie, R. B., Sandstad, M., Krishnan, S., Myhre, G., Bryant, H., Derwent, R., Hauglustaine, D., Paulot, F., Prather, M., & Stevenson, D. (2023). A multi-model assessment of the Global Warming Potential of hydrogen. *Nature Communications Earth & Environment*, 4(1), 203.

leak at higher rates than natural gas alone.[53] While in situ data on hydrogen leakage rates is scarce, estimates from the full value chain of hydrogen—including production, transportation, storage, and use—range from 0.2 - 20%.[54] Numerous studies have indicated that a 10% leakage rate could reduce or eliminate the climate benefit of replacing fossil fuels with green hydrogen.[55, 56, 57]

P95-63 (cont'd)

The small contribution of hydrogen to GHG emissions reductions in this project is addressed in the DEIR in part by considering the project's GHG emissions assuming operations use 100% natural gas. The DEIR indicates that the GHG emissions using only natural gas fall below the federal NSPS TTTT and state SB 1368 standards for GHG emissions thresholds for new fossil fuel projects. However, this does not address the warming potential from hydrogen leakage. It is also not in line with the goals outlined in the SLTRP and does not address the long-term policy goals stated in the project objectives. The City of Los Angeles and CARB's Scoping Plan both aim to eliminate GHG emissions from power generation. This would require switching entirely to green hydrogen with no combustion of natural gas.

c. Energy Availability

Given the Project's use of hydrogen, maintaining a reliable fuel supply has potential environmental impacts not addressed in the DEIR. In this and the following subsections, we outline some of the potential impacts that would result from differing energy security strategies. First, a limited hydrogen supply that prompts natural gas-only operations impacts long-term operational air pollution and GHG emissions. Second, storing hydrogen on site to ensure a ready supply of this fuel has construction- and potential operational GHG-related impacts. Third, different methods to transport hydrogen have different associated construction and operational air quality and GHG emissions impacts.

P95-64

One of the stated Project objectives is to "establish a generation source that is always available, dispatchable, and local relative to the LADWP service area." A combined-cycle gas turbine is dispatchable, but the availability of hydrogen fuel is a significant risk. The green hydrogen market in California is still nascent, with little existing supply.[58] While California's hydrogen market is poised to develop, BloombergNEF notes that announced hydrogen projects have not always materialized and

[53] Penchev, M., Lim, T., Todd, M., Lever, O., Lever, E., Mathaudhu, S., Martinez-Morales, A., & Raju, A. S. K. (2022). Hydrogen Blending Impacts Study Final Report. Agreement Number: 19NS1662. https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M493/K760/493760600.PDF.

[54] Esquivel-Elizondo, S., Mejia, A. H., Sun, T., Shrestha, E., Hamburg, S. P., & Ocko, I. B. 2023. Wide range in estimates of hydrogen emissions from infrastructure. *Frontiers in Energy Research*, 11, 1207208.

[55] Ocko, I. B., & Hamburg, S. P. (2022). Climate consequences of hydrogen emissions. *Atmospheric Chemistry and Physics*, 22(14), 9349-9368.

[56] Sun, T., Shrestha, E., Hamburg, S. P., Kupers, R., & Ocko, I. B. (2024). Climate impacts of hydrogen and methane emissions can considerably reduce the climate benefits across key hydrogen use cases and time scales. *Environmental Science & Technology*, 58.

[57] Bertagni, M. B., Pacala, S. W., Paulot, F., & Porporato, A. (2022). Risk of the hydrogen economy for atmospheric methane. *Nature Communications*, 13(1), 7706.

[58] IEA. (2024). IEA Hydrogen Production Projects Database. https://www.iea.org/data-and-statistics/data-product/hydrogen-production-and-infrastructure-projects-database. Accessed Feb 11, 2025.

project timelines are often delayed.[59] CARB's Scoping Plan suggests that California will need to grow its hydrogen supply by 1,700x to meet green hydrogen demand in non-power sector applications; although the Scoping Plan proposes hydrogen's use in power plants for emergency backup, it does not allocate any of California's hydrogen supply for this use.[60] This indicates competition for a future green hydrogen supply and the risk of fuel insecurity.

P95-64 (cont'd)

The Project can operate entirely on natural gas if hydrogen is unavailable. However, this is not in line with long-term local, regional, or state decarbonization policy or with LADWP's long-term plans. The potential for fuel insecurity suggests the need for on-site hydrogen storage (discussed below) to achieve these policy objectives.

Citing the early nature of the industry, LADWP does not discuss the potential environmental impacts of hydrogen infrastructure beyond those related to the construction of the hydrogen-capable turbine and the air pollution impacts of combusting a 70% natural gas, 30% hydrogen fuel mix. The air pollution and GHG impacts of using higher percentages of hydrogen are not discussed in the DEIR, though such analyses would be applicable for comparisons to possible project alternatives.

d. Hydrogen Transport and Storage

The methods for production, transport, and storage of green hydrogen will play a significant role in the environmental impact of using this fuel. For example, the method of transporting hydrogen to Scattergood could influence local pollution, construction emissions, and potential leakage rates.

P95-65

There is little room to produce green hydrogen in the L.A. Basin, so this fuel will need to be brought in from further away. If a ready supply of green hydrogen is available, the most efficient way to transport it to Scattergood would be via pipeline. However, it would take years to build a pipeline and, given the stated low capacity factor, the cost effectiveness of building such a pipeline is questionable. Hydrogen could also be blended into existing natural gas pipelines or existing pipelines could be converted to carry hydrogen. However, each of these options has its own environmental impacts.

Hydrogen blending is an active area of research, with some studies suggesting that blends of up to 20% by volume may operate normally in existing pipelines while some pipeline operators have indicated that significant upgrades would be required for safe operations at this volume.[61] Blending hydrogen into existing natural gas pipelines can cause embrittlement, and research suggests that

[59] BloombergNEF. (2024, May 14). Hydrogen Supply Outlook 2024: A Reality Check. https://about.bnef.com/blog/hydrogen-supply-outlook-2024-a-reality-check/. Accessed Feb 11, 2025.
[60] California Air Resources Board. (2022). 2022 Scoping Plan for Achieving Carbon Neutrality. https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf. Accessed Feb 11, 2025.
[61] Martin, P. (2023, November 9). Gas grids can already cope with 20% hydrogen blends? That simply isn't true, says new report from network operator. *Hydrogen Insight*. https://www.hydrogeninsight.com/production/gas-grids-can-already-cope-with-20-hydrogen-blends-that-simply-isnt-true-says-new-report-from-network-operator/2-1-1551369. Accessed Feb 11, 2025.

blends as low as roughly 5% may increase this risk.[62] As mentioned, leakage rates are also higher for natural gas / hydrogen blends than natural gas alone. The Project indicates a 30% minimum hydrogen blend for blended operations and LADWP plans to operate Scattergood entirely with hydrogen by 2035, so new pipeline construction or major retrofits would be required if LADWP opts for pipeline transport. If dedicated hydrogen pipelines are built, or natural gas pipelines are retrofitted to accommodate hydrogen blends, there will be additional construction and potential leakage impacts, neither of which are considered in the DEIR.

P95-65 (cont'd)

In the near term, hydrogen is likely to be trucked to where it is needed. This could increase local air pollution, depending on the volume of hydrogen required and whether diesel trucks or clean vehicles such as hydrogen- or battery-powered trucks are used. Scattergood's operational emissions would increase if large quantities of hydrogen are transported to the facility using diesel trucks.

For example, we estimate that roughly 40 trucks of hydrogen per day would be required for Scattergood to operate at a 25% capacity factor, assuming a 30% hydrogen by volume blend and a standard 380 kg hydrogen tube trailer.[63, 64] Optimistically assuming that hydrogen is transported using recently developed composite vessels that can hold up 560-900 kg of hydrogen per trailer,[65] we estimate that Scattergood would require 15-24 trucks per day to operate at a 25% capacity factor with a 30% hydrogen blend. The higher Scattergood's capacity factor and the greater the percentage of hydrogen, the more trucks would be required. These trucks would need to travel large distances from outside of the LA Basin. The potential ongoing emissions from transporting hydrogen to Scattergood via these trucks are not considered in the DEIR.

The fuel availability concerns discussed above suggest a need for on-site hydrogen storage. This would require both physical space and the construction of storage infrastructure, which are not considered in the DEIR. Hydrogen's energy content by volume is lower than natural gas and liquid fuels like gasoline—10 KJ/Nm3 for hydrogen versus 36 KJ/Nm3 for methane, the main component of natural gas.[66] Hydrogen's energy density can be increased through compression to higher pressures, but this

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[62] Penchev, M., Lim, T., Todd, M., Lever, O., Lever, E., Mathaudhu, S., Martinez-Morales, A., & Raju, A. S. K. (2022). Hydrogen Blending Impacts Study Final Report. Agreement Number: 19NS1662. https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M493/K760/493760600.PDF.

[63] A 346 MW CCGS with a 25 percent capacity factor generates 2,076 MWh per day. Hydrogen has a higher heating value of 0.134 MMBtu/kg and constitutes roughly 12.5 percent of the energy in a 30 percent hydrogen, 70 percent natural gas by volume blend. This leads to an energy need of roughly 260 MWh from the hydrogen component alone. Assuming a 50 percent combustion efficiency, a 380 kg hydrogen tube trailer can transport approximately 6 MWh worth of hydrogen.

[64] United States Department of Energy. (n.d.). Hydrogen Tube Trailers. https://www.energy.gov/eere/fuelcells/hydrogen-tube-trailers. Accessed February 3, 2025.

[65] ibid.

[66] Shilling, N. Z. (2023). Emissions and Performance Implications of Hydrogen Fuel in Heavy Duty Gas Turbines. Clean Air Task Force.

requires an increasing amount of energy[67] and would increase costs for both compression and storage as well as the potential for leakage and safety concerns (discussed below). Hydrogen can also be stored cryogenically as a liquid, where it has a much higher energy density. However, the liquefaction process is energy intensive, with current processes requiring 11.9 - 15 kWh/kg H_2, which is equivalent to 35 - 45% of the fuel's heating value.[68] Liquid hydrogen also suffers boil off losses of 0.1 - 4 percent per day depending on tank insulation and cooling, pressure, and tank size.[69] As LADWP intends to burn hydrogen infrequently, this method of storage may not make economic sense. While other potential methods of hydrogen storage are being explored, they are still under development and may not be viable on the timeframe required.

P95-65 (cont'd)

Subsequently, significant storage space may be required to keep the fuel reserve necessary to cover anticipated peak demand and the emergency events Scattergood is intended to cover. The DEIR cites a lack of available space as a core reason a battery energy storage system (BESS) is not a viable alternative to this project. But Project documentation does not address the space for or associated construction-related impacts of on-site hydrogen storage infrastructure.

e. Additional Hydrogen Considerations

Decarbonizing in-basin energy generation by switching from natural gas to hydrogen combustion faces additional risks and challenges, some of which may have downstream environmental impacts.

As discussed above, combustion turbines that operate on natural gas / hydrogen blends are a newer technology, and turbines that operate using 100% hydrogen are not well commercialized.[70] This opens the door for potential cost and operational risk. This is particularly true for future 100% hydrogen operations in line with LADWP's Strategic Long Term Resources Plan as well as the GHG emissions goals in various policy targets. If the infrastructure installed for this project is not sufficient to achieve those future objectives, further new construction and its associated environmental impacts would be required. These are not discussed within the DEIR.

P95-66

The flammability of hydrogen also introduces safety concerns, particularly in regards to transport and storage. Hydrogen ignites more easily and at lower concentrations than natural gas.[71] It is also a smaller molecule than natural gas. Given its lower energy density by volume, it is transported and

[67] Krieger, E., Kwoka, B., Lukanov, B. (2024). Green Hydrogen Proposals Across California. PSE Healthy Energy. https://www.psehealthyenergy.org/wp-content/uploads/2024/05/Green-Hydrogen-Proposals-Across-California.pdf. Accessed Feb 11, 2025.
[68] Ghafri et al. (2022). Hydrogen liquefaction: a review of the fundamental physics, engineering practice and future opportunities. *Energy Environ. Sci.*, 15, 2690-2731.
[69] ibid.
[70] Krieger, E., Kwoka, B., Lukanov, B. (2024). Green Hydrogen Proposals Across California. PSE Healthy Energy. https://www.psehealthyenergy.org/wp-content/uploads/2024/05/Green-Hydrogen-Proposals-Across-California.pdf. Accessed Feb 11, 2025.
[71] U.S. Department of Energy. (n.d.). Hydrogen Safety. https://www1.eere.energy.gov/hydrogenandfuelcells/pdfs/h2_safety_fsheet.pdf. Accessed January 24, 2025.

stored under higher pressure and hydrogen / natural gas blends have been shown to leak at higher rates than natural gas on its own, increasing the risk of a safety incident. As noted above, existing natural gas pipelines are at risk of embrittlement from hydrogen blends at the minimum 30% by volume concentrations proposed for this project. Thus, alongside new safety measures, new pipelines and the associated environmental impacts of construction would be required for the safe transport and use of hydrogen.

P95-66 (cont'd)

f. Summary of Findings Regarding Use of Hydrogen

Green hydrogen infrastructure could have significant environmental impacts that are not addressed within this DEIR. Whether the hydrogen used at Scattergood is truly zero emission impacts the level of GHG emission reductions hydrogen can provide. How LADWP plans to ensure a reliable supply of green hydrogen, both in terms of transport and on-site storage, impacts both local air quality and GHG emissions. The exclusion of these impacts in this DEIR is understandable given the significant uncertainties in this space. But given their potentially significant environmental impacts, we recommend these questions be addressed so this project can be appropriately compared to the alternative options before significant investments are made. This would include assessments of scenarios for storage, transport, and combustion of both hydrogen blends and pure hydrogen and ranges of values using recent studies to assess their potential impacts. These impacts would include climate impacts from leakage, round trip efficiency of hydrogen transport and combustion and estimates of the carbon intensity of the grid in case renewables are redirected to hydrogen production, and the footprint of storage systems for local hydrogen storage.

P95-67

6. Project Alternatives

a. Alternatives Explored in the DEIR

Following are the alternatives discussed in the DEIR.

i. No Project

We agree that no project is not a good alternative. Given future load growth and transmission constraints, development of local energy assets using existing land and interconnection capacity should be pursued at Scattergood.

P95-68

ii. Energy Storage

The DEIR does not sufficiently consider the use of on-site energy storage. We find that estimates of the amount of storage that could be sited at Scattergood are low and do not consider alternatives that could potentially increase the storage by a factor of two or more using existing technology. It further does not consider improved battery energy storage technologies already being actively deployed in California and elsewhere that can provide substantially higher capacities and/or longer durations. Importantly, a battery energy storage system (BESS) would avoid environmental impacts and simultaneously provide additional benefits to the grid by maximizing the impact of intermittent renewables year-round. We thus find that a BESS is a viable option to meet the goals of the Project as

P95-69

stated and needs further consideration both as a stand-alone alternative and as a component to a hybrid alternative discussed in **Section 6c** below.

The DEIR acknowledges that a grid-scale BESS is "technically feasible" and can "reduce some environmental impacts." The DEIR argues, however, that it would not provide "comparable generation capacity." This is for two reasons. First, it would require "substantially more real estate" to match the capacity of the Project. Second, it would not "provide requirements for a reliable, resilient, and readily dispatchable longer duration energy source during periods of critical demand." However, the DEIR also acknowledges that a BESS "provides for multiple services such as operating as a fast response and reserve for unpredictable variations in demand or generation system failures, helping reduce loading on transmission and distribution systems during peak times, and providing reliable capacity to meet peak system demand." In short, a BESS provides services throughout the year since it does not generate any emissions and can be freely operated throughout the year as opposed to the proposed project which is planned to be used "substantially less" than the current capacity factor of roughly 25%.

P95-69 (cont'd)

First, we explore the concern of real estate. The DEIR claims BESS' produce "approximately 45 MWh per 1 acre in 4 hours". The source for this estimate is from one potential provider and a study of a proposed solar and storage site in rural Colorado. Using typical values for areal density BESSs is misleading as these systems are often built alongside solar farms where the impact of the area requirements of batteries is negligible compared to the need for solar and so efforts to constrain them are limited. However, for in-basin energy resources where real estate is a large constraint, significantly higher densities of energy storage are possible using proven technologies. Existing installations studied in a recent article found lithium ion batteries can range as high as 62 MWh per 1 acre using Tesla Inc. Megapacks in blocks of two.[72] Importantly, this installation is at Moss Landing, the site of a previous gas generation facility in California that was converted into a BESS.

P95-70

Even higher densities and durations will be possible by the expected date of deployment in five years given the rapidly advancing technological improvements in the field. Below is a survey of just a few technologies that may provide substantially higher capacity and densities. These are at a similar, or even more advanced, stage in their development compared to the hydrogen blend CCGS in the proposed Project.

- Envision Energy demonstrated an 8 MWh battery using 700 Ah lithium-iron phosphate (LFP) battery cells in a 20 foot container.[73] This is roughly twice as dense as the current configuration

[72] Reber, David, Sam Jarvis, and Michael Marshak. (2022). The role of energy density for grid-scale batteries. https://chemrxiv.org/engage/api-gateway/chemrxiv/assets/orp/resource/item/63752e8ae70b0a2d469f8fd5/original/the-role-of-energy-density-for-grid-scale-batteries.pdf.

[73] Emerging Technology News. (Sept 9, 2024). Envision unveils 8 MWh grid-scale BESS with superior energy density. https://interestingengineering.com/energy/new-envision-energy-storage. Accessed Feb 11, 2025.

of Tesla Megapacks cited above at Moss Landing with roughly 4 MWh[74] per unit container with a slightly larger footprint.[75]

- FORM energy builds 100-hour iron-air batteries that provide storage of 300 MWh per acre[76] and are expected to begin operation by the end of 2025.[77] Although their energy density is very high, these cells discharge slower and would be less suitable for the Scattergood parcel as they would need a considerable footprint to meet the peak load. They could, however, provide essential long-duration capacity if sited on neighboring parcels as discussed in **Section 6c** below.
- ESS started development of a long-duration iron flow 200 MW/2 GWh BESS with a duration of up to 12 hours for the Sacramento Municipal Utility District.[78] Domestic production of these have already begun. These batteries have much lower energy densities than lithium ion batteries with a little more than 1 MWh per container,[79] but they provide benefits in terms of longer duration and reduced fire risk and may be candidates for neighboring parcels as discussed in **Section 6c** below.
- Average prices for battery packs have also decreased by roughly 30% in the two years alone since the SLTRP was written in 2022 according to Bloomberg.[80]

P95-70 (cont'd)

Furthermore, the DEIR states that only 10 acres are available for a BESS at Scattergood. This includes the 3 acres for the proposed site and an additional 7 acres at the southern parcel of the site. We appreciate the consideration of the unutilized land on this site. However, elsewhere the DEIR states that there are 13.5 acres of unused space at that southern parcel. It is not clear why only roughly half of the parcel can be used. One concern mentioned in the DEIR is the flatness of the parcel, but grading

[74] Tesla Megapacks provide an energy density of 3.9 MWh according to Tesla although this value can vary between module options. Tesla https://www.tesla.com/megapack. Accessed Feb 11, 2025.
[75] Tesla. (2024) Tesla Lithium Ion Battery Emergency Response Guide. https://www.tesla.com/sites/default/files/downloads/Lithium-Ion_Battery_Emergency_Response_Guide_en.pdf . Accessed Feb 11, 2025.
[76] MIT Department of Materials Science and Engineering. (Mar 4, 2024). Power when the sun doesn't shine. https://dmse.mit.edu/news/power-when-the-sun-doesnt-shine/. Accessed on February 4, 2025.
[77] California Energy Commission. (December 13, 2023). "CEC Awards $30 Million to 100-Hour, Long-Duration Energy Storage Project". https://www.energy.ca.gov/news/2023-12/cec-awards-30-million-100-hour-long-duration-energy-storage-project. Accessed Feb 11, 2025.
[78] ESS Tech Inc. (September 20, 2022) Accelerating Decarbonization, ESS Inc. and SMUD Announce Agreement to Deploy up to 200 MW / 2 GWh of Long-Duration Energy Storage Solutions. https://essinc.com/accelerating-decarbonization-ess-inc-and-smud-announce-agreementto-deploy-up-to-200-mw-2-gwh-of-long-duration-energy-storage-solutions/. Accessed Feb 11, 2025.
[79] ESS Energy Center Datasheet. (2024). https://21814608.fs1.hubspotusercontent-na1.net/hubfs/21814608/2024-05-ESS-EnergyCenter-datasheet-rev5.pdf. Accessed on February 9, 2025.
[80] Bloomberg NEF (Dec 10, 2024). Lithium-Ion Battery Pack Prices See Largest Drop Since 2017, Falling to $115 per Kilowatt-Hour. https://about.bnef.com/blog/lithium-ion-battery-pack-prices-see-largest-drop-since-2017-falling-to-115-per-kilowatt-hour-bloombergnef/. Accessed Feb 11, 2025.

should be a straightforward solution to siting more storage. Furthermore, we note that once Units 1 and 2 are retired, a further 1-2 acres will be available based on rough GIS estimates.

Using 62 MWh per acre and 18 acres—the values of a more spatially optimized BESS and the area available in the southern parcel, the proposed site, and the area occupied by Units 1 and 2—we find instead a total energy storage capacity of 1,116 MWh and power capacity of 279 MW. This could provide 80% of the discharge capacity of the proposed project. The DEIR, however, cites values that are 68% lower without sufficient explanation.

P95-70 (cont'd)

Moreover, if the Envision Energy batteries cited above with capacities of 8 MWh per 20 foot container were used in the same configuration as the Megapacks, that could roughly double the capacity of the installation to over 500 MW of four hour storage, higher than the Project capacity of 346 MW. Given the constrained footprint of the parcel, LADWP should consider more ambitious BESS installations rather than the modest value they estimated. The DEIR, moreover, should include the solicitation of proposals from multiple vendors to optimize this capacity in order to properly inform the feasibility of a BESS installation.

Second, we explore the concern of generation capacity. We acknowledge that the generation profile of a BESS is significantly different from that of a CCGS, as a BESS needs to be recharged. However, we note that the 2022 SLTRP includes the need for "significant quantities" of new stand-alone storage. Given the imprecise nature of the first goal, it is difficult to ascertain which type of generation profile is to be expected from this Project. The SLTRP does state that "Even during periods of peak customer demand, model results show that green hydrogen would be rarely dispatched." This suggests that the broader power system will likely cover future demand and that the proposed Project will be needed primarily for meeting peak demand, for which BESSs are well suited. This also agrees with the "significantly lower" than 25% capacity factor stated in the DEIR. If, however, the Project is expected to provide a much higher capacity factor than described in the DEIR, then a BESS may be insufficient. We discuss in a later section how, through a strategic combination with other resources, the ability of a BESS to meet the stated first objective could be significantly increased.

P95-71

We wish to add that BESSs incur a significant risk of fire that is not discussed in the DEIR. These fires also include the potential for the release of toxins that can impact local air quality if such a fire does occur, such as the recent BESS fire at Moss Landing. This risk should be adequately addressed and mitigations proposed. However, safety standards have rapidly improved for the developing BESS technologies and the recent fire at Moss Landing was caused by a battery manufactured by LG relying on a different chemistry than the Tesla batteries discussed here.[81]

P95-72

[81] Canary Media. (January 2025). Why we don't need to worry too much about the latest grid battery fire. https://www.canarymedia.com/articles/energy-storage/moss-landing-fire-reveals-flaws-in-the-battery-industrys-early-designs. Accessed Feb 11, 2025.

In addition to meeting the goals outlined in the Project, BESSs provide further strategic advantages listed below, many of which stem from their modular nature.

- We expect lower impacts from construction compared to the Project as the battery fabrication occurs off-site.
- BESSs can be installed and scaled relatively quickly to match the needs of the grid. They can also be upgraded to systems with higher capacity and duration with minimal to no interruption to customers.
- BESSs provide a low risk of stranded costs and low regrets, as they provide a variety of vital services given the increasing proportion of intermittent renewables on the grid and retain significant value at the end of their lifetime.
- BESSs can avoid curtailment of solar and other renewables throughout the year and offset the use of combustion sources all year round, not just when peaks are the highest, and thus maximize the utility of intermittent resources.

P95-73

Conversely, the proposed Project has a lifetime of 30 years, risking a combination of 30 years of adverse impacts and stranded costs if run at the stated low capacity factors. As such, a BESS has the ability not only to avoid the local impacts from a CCGS, but also provide benefits through reduced impacts from combustion elsewhere throughout the entire year.

iii. Green Hydrogen Powered Fuel Cells

While fuel cells can, in principle, generate firm dispatchable power, the DEIR raises multiple concerns that we largely agree with. They are a technology unproven at this scale with this footprint. Moreover, as with the Project, they would heavily rely on a hydrogen delivery and storage system that also carries local air pollution, safety, and climate risks. These impacts are discussed in **Section 5** above.

P95-74

iv. Eliminate Vendor B

The DEIR proposes to not use the vendor that has the highest emissions. Otherwise, this alternative seems largely the same according to our study of the DEIR. This alternative is presented as the Environmentally Superior Alternative. Given the high degree of similarity with the Project, choice of an alternative that is more significantly different from the Project as the Environmentally Superior Alternative would provide a much higher degree of differences between impacts.

P95-75

b. Alternatives Considered But Dismissed from Consideration in the DEIR

P95-76

The DEIR categorizes the following alternatives as “Considered But Dismissed from Consideration”

i. Increased Demand Side Management

Demand-side management programs were excluded from consideration as LADWP claims they cannot increase beyond the level at which they are pursuing these resources. While demand-side management would certainly be insufficient to meet the goals of the Project, they can play an important component in a suite of resources that supply the same capacity as the Project.

P95-77

Furthermore, increases in demand-side management are attainable as LADWP can increase the rate of adoption. Moreover, demand-side management, including the investment in resilient back-up resources, would directly address the third Project goal of managing "energy demand in the Scattergood service area, which includes Los Angeles International Airport, Hyperion Water Reclamation Plant, and the western districts of the City of Los Angeles." We discuss this in greater detail in **Section 6c**. P95-77 (cont'd)

ii. Increased In-Basin Clean Energy Generation

In-basin generation, largely described as distributed resources such as rooftop PV, were excluded from further consideration as LADWP claims they cannot increase beyond the level at which they are pursuing these resources. We agree that it would be challenging to plan an additional level of these resources locally to match the full capacity of the 346 MW of Units 1 and 2. However, in combination with battery energy storage, this resource could be part of an improved alternative. Moreover, incentives, programs, and distribution-side investments have the ability to greatly increase the rate at which generation is deployed on the distribution side. Thus, LADWP can indeed increase the rate at which these are deployed. A large degree of in-basin capacity remains to be installed which, when combined with energy storage, can aid in meeting the goals of the Project. We discuss this in greater detail in **Section 6c**. P95-78

iii. New and Upgraded Transmission Lines

LADWP assumes Scattergood must remain online to meet in-basin peak demand in part due to limited transmission capacity into West Los Angeles.[82] However, in previous comments we demonstrated that one of the key transmission lines into the area (Sylmar) is underutilized, with more than 90% of this line's transfer capacity available in the Real Time Pre-Dispatch market on average between August 2023 and August 2024.[83] Exploring ways to take advantage of this existing capacity, for instance through strategically placed renewables and energy storage, would reduce the need for in-basin generation from Scattergood. Advanced reconductoring of other transmission lines[84] whose existing capacity serves as a bottleneck to supplying power that could ultimately flow into the L.A. Basin could also enable LADWP to meet normal peaks in demand using renewable resources from further afield. P95-79

Transmission upgrades alone cannot address interruptions in the delivery of out-of-basin renewable energy. But LADWP should have examined whether transmission upgrades paired with strategically sited BESSs of different durations and high levels of local DER could ensure there is enough dispatchable power to cover the rare instances this project would be needed.

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[82] Los Angeles Department of Water & Power. (2024b, March 21). 2024 SLTRP Kickoff Meeting. https://www.ladwp.com/sites/default/files/2024-03/SLTRP%202024%20Overview%20Presentation.pdf.

[83] PSE Healthy Energy. (2024). Comments on LADWP's 2024 Strategic Long-Term Resource Plan Modeling Assumptions. Prepared by PSE Healthy Energy for the Regenerate Coalition.

[84] Chojkiewicz, Emilia, et al. (2024). Accelerating transmission capacity expansion by using advanced conductors in existing right-of-way. *Proceedings of the National Academy of Sciences* 121.40: e2411207121.

c. Discussion of Findings from NREL's Alternatives Assessment

The National Renewable Energy Laboratory (NREL) released a report entitled "Scattergood Modernization Project Alternatives: Summary of Findings" in February 2025 after the initial DEIR comment deadline and drafting of this report. The modeling performed by NREL is key to understanding many of the questions we pose elsewhere in this report regarding the ability of alternatives to meet the demand and resilience needs of the Project. Unfortunately, due to unnecessary constraints on the alternatives under consideration, many of these questions still remain. We update our report in response to NREL's finding below by responding to each finding from their executive summary.

P95-80

i. NREL Finding #1: "*New dispatchable capacity is needed to replace the retiring once-through cooling units at Scattergood.*"

P95-81

We concur with this finding and the DEIR that new dispatchable capacity is needed. As discussed throughout this report, there are alternatives to the Project such as energy storage that are also able to meet this goal while avoiding the Project's negative impacts.

ii. NREL Finding #2: *"New or upgraded transmission does not appear to be a viable alternative by the 2030 requirement."*

P95-82

We agree that new transmission alone will not be sufficient to replace the capacity at Scattergood. We also agree that "[n]ew transmission typically requires more than 5 years to deploy, meaning it cannot be available by the end of 2029 and therefore is not considered a viable alternative to an in-basin resource." However, in a fair comparison, it is important to state that there is significant risk that the Project will not be fully operational by the end of 2029 given the still-developing nature of the requisite hydrogen infrastructure and supply. This will be further compounded by long lead times for even traditional gas turbines. According to a recent article, "*If you're building a project that involves a gas turbine, the largest manufacturers say you should be talking to your OEMs as long as seven or eight years out.*"[85]

iii. NREL Finding #3: "*Energy storage durations required to achieve the same level of reliability are at least 10 hours, resulting in a footprint that exceeds the land available at the Scattergood site.*"

P95-83

Due largely to the footprint consideration, the NREL report **omits storage dominant alternatives from modeling of cost or reliability.** This omission is unnecessary and severely limits the utility of this analysis. As such, little new information is gained from this report regarding storage except that roughly 21 acres of land are needed for 10-hour lithium-ion storage. Alternatives relying heavily on energy storage are likely among the most cost effective with the least negative impacts. However, due to the omission from modeling based on needlessly strict footprint constraints from LADWP, we lack

[85] Clark, Kevin. Power Engineering. (February 2025). Long lead times are dooming some proposed gas plant projects. https://www.power-eng.com/gas/turbines/long-lead-times-are-dooming-some-proposed-gas-plant-projects/

information about this alternative. Importantly, storage is more established with less risk than the hydrogen alternatives that were, in fact, included in the models. We outline gaps with the analysis LADWP requested from NREL both in the bullets below and elsewhere throughout this section.

- The parcel size was unnecessarily constrained. According to the DEIR, the southern parcel size is 15 acres with 1.5 acres under lease for oil-drilling facilities. The DEIR already reduced these 13.5 acres by 6.5 acres to 7 acres because of "excess soil from previous construction activities" stored there. Reserving 6.5 acres in the LA basin for the storage of excess soil is not a wise usage of land. The NREL report goes further to limit the area from 7 acres down to 6 acres because of the parcel's shape, which was likely already accounted for in the DEIR. As such, in total, the NREL report limits the parcel availability to just 9 acres (3 acres on the proposed site and 6 acres on the southern parcel). In **Section 6.a.ii**, we instead estimate that there could be up to 18 acres in total available for this project, nearly equal to the 21 acres the NREL reports is needed.
- The areal density (MW/acre) of storage was constrained to estimates from existing installations. However, this constraint was not applied to the fuel cell alternative. If it had been, this alternative would also have been eliminated from consideration. NREL also includes substation-related equipment in their footprint estimates, which they acknowledge may be redundant as it is also required by the proposed Project and not included in the Project's allocated footprint. We note that there are at least three straightforward alternatives to drastically increase the areal density of the storage. **Any one of these three feasible alternatives could be sufficient to site storage for which NREL reports 21 acres is needed.**
    1. Use recently demonstrated lithium batteries that have roughly doubled the energy available per battery storage unit (see **Section 6.a.ii** for more details).
    2. Lease land at adjacent parcels for storage (see **Section 6d** for more details). NREL's report identifies the challenge of "significant uncertainty around the amount of time and process required to locate, obtain full site control and conduct environmental reviews on additional land located near Scattergood." However, we note that the Project also has significant uncertainty around environmental reviews, especially regarding the pipeline construction or upgrades required to transport hydrogen to Scattergood from outside of the LA basin.
    3. Stack battery units on top of each other. This alone could potentially double the amount of energy storage available. Stacked storage units have already been demonstrated (photo right[86] as an example).



P95-83 (cont'd)

[86] Lempriere, Molly (August 3, 2022). Current. Limejump begins optimising Voltalia's 32MW Hallen battery.

- Due to the omission from PLEXOS modeling, cost considerations of energy storage are not up to date. The NREL report states that "[t]he original LA100 study found battery storage technologies that could be sited at Scattergood were an uneconomic alternative compared to renewably fueled combustion turbines for replacing all the services provided by the existing Scattergood OTC unit." However, they go on to state that "[s]ince the publication of the LA100 study [in March 2021], there have been both considerable deployment of Li-ion batteries and continued reductions in cost." Due to the omission of energy storage from cost modelling of the Project and possible alternatives, however, we cannot know the economics of storage in this case. However, we can speculate that, given the many completed and in-progress installations, storage may now be a cost-competitive technology compared to the Project.

P95-83 (cont'd)

iv. **NREL Finding #4:** "*Fuel cells using 100% green hydrogen are unlikely to be a viable alternative to SMP by 2030. Fuel cells using hydrogen/natural gas blends may be a technically viable alternative but at a significantly higher cost premium and will face increased technical and operational risk/uncertainty.*"

P95-84

We agree that a fuel cell alternative faces great uncertainty. This is due both to the ability to construct a fuel cell at this scale and the ability to access the requisite amount of hydrogen, an uncertainty also faced by the Project. Moreover, we find it surprising that the fuel cell alternative passed the screening process for construction by the end of 2029 given the substantial number of technical hurdles needed to overcome a project of this scale as outlined by NREL.

v. **NREL Finding #5:** "*Demand response, as a stand-alone alternative, does not appear to be available in sufficient quantity in the area near the Scattergood site.*"

P95-85

We agree demand response alone is not sufficient. However, demand response can provide critical additional megawatts of capacity in the event of emergency grid conditions and should be considered as an incremental capacity resource for a hybrid alternative to the Project.

vi. **NREL Finding #6:** "*Combination options can reduce the cost premium of the alternatives but are still likely more expensive and do not eliminate significant technology risks.*"

We appreciate that NREL considered pairings of resources. Unfortunately, the report only considered two combinations, both with fuel cells. For the combination with storage, NREL indicates that "the combination would reduce the high cost of fuel cells," particularly as "the battery has lower capital costs per unit of capacity compared to the fuel cell. The storage is also potentially eligible for the investment tax credit." Limiting alternatives solely to options dominated by fuel cells is not sensible. An alternative of combined demand response and storage, both of which are well established and rapidly progressing technologies, is not considered. This is due, again, to the artificial footprint constraint discussed above. As such, the report lacks critical information about the economics of an alternative that is dominated by storage but supplemented by demand response.

P95-86

To better inform an assessment of the alternatives, we ask that LADWP consider scenarios where the full capacity of the Project can be met with storage alongside another scenario where the majority is met with storage with a smaller portion of capacity met with demand response. These scenarios should be run through the PLEXOS model with comparisons made both with alternatives and the Project itself. Moreover, these results should be framed to answer potential concerns NREL identified regarding reliable operations with energy storage given possible charging constraints during periods of extreme peak demand, as well as possible cost savings from energy storage as "operational savings associated with the battery (per unit of capacity) are substantially higher than with [the Project] due to the ability to [sic] the battery to charge with lower cost energy." This data would then help inform whether reliance on more proven alternatives without negative impacts can also be cost effective. If so, more effort should be put into determining the feasibility of the strategies above to increase the potential of these alternatives with feedback from vendors. As the DEIR and this report stands currently, many questions still remain.

P95-86 (cont'd)

d. Suggested Alternative: Energy Storage and Demand-Side Hybrid

An alternative not explored in the DEIR is a combination of a BESS and local demand-side resources. For this alternative, we limit consideration solely to assets in the vicinity of Scattergood to avoid the complexity of the full LADWP grid. Even with this limitation, we find a viable suite of assets that can meet the stated goals with existing technology and avoid the impacts of the Project. These resources are summarized in **Table 7** below. While the additional potential of each asset requires further investigation, we note that only a subset of these assets is needed to provide the stated 346 MW which provides redundancy in case one or more of these solutions are not viable.

P95-87

Table 7: Summary of proposed resources in suggested alternative

Local Resource	Resource Summary
On-site BESS	Roughly 280 MW to 550 MW of 4-hour storage may be possible using optimized storage as discussed in **Section 6.a.ii**. These resources would directly use the interconnection access at Scattergood.
Adjacent site BESS	In addition to the availability of up to 18 acres at Scattergood, Hyperion, a water reclamation facility, and Los Angeles International Airport (LAX) are adjacent sites with footprints of 144 and 3,500 acres respectively. Land could be leased at these sites for BESS that could provide resilience for these critical loads. Using only one percent of the land at Hyperion could provide 20-40 MW of 4-hour storage (80-160 MWh respectively) using the two density estimates discussed above. Using only one percent of the land at LAX for iron-air BESS could provide 100 MW of 100 hour storage or 10,000 MWh of energy storage. Use of a blend of storage durations can build resilience to a broader set of scenarios. Given the close proximity, these BESSs could feasibly use the interconnection access at Scattergood.
Local demand management	Local buildings and facilities can shift operations in order to reduce the peaks in power demand the Project is designed to provide power for. For example, Hyperion has a load of 19 MW. LAX has a load that is significantly higher although it already uses technology to shift some of its HVAC power consumption to lower-cost hours. Loads from EVs that motivate much of the expected load growth are also flexible. It is difficult, however, to quantify the additional capacity possible beyond the assumptions made in the LA100 study that motivate the Project goals without more data.
Local demand-side generation	Increases in local solar+storage can help build resilience and charge batteries. LAX has "a possible capacity of up to 23.5 megawatts of power"[87] which was not accounted for in the underlying LA 100 study, and Hyperion could also site 6 MW of solar using just 5% of its site. Substantially more is possible on nearby homes, commercial buildings, and parking lots. It is difficult, however, to quantify the additional capacity possible beyond the assumptions made in the LA100 study that motivate the Project goals without more data.

P95-87 (cont'd)

Below, we elaborate on each of the resources summarized in **Table 7**.

On-site BESS is discussed in more detail in **Section 6.a.2**. above in the Energy Storage section.

P95-88

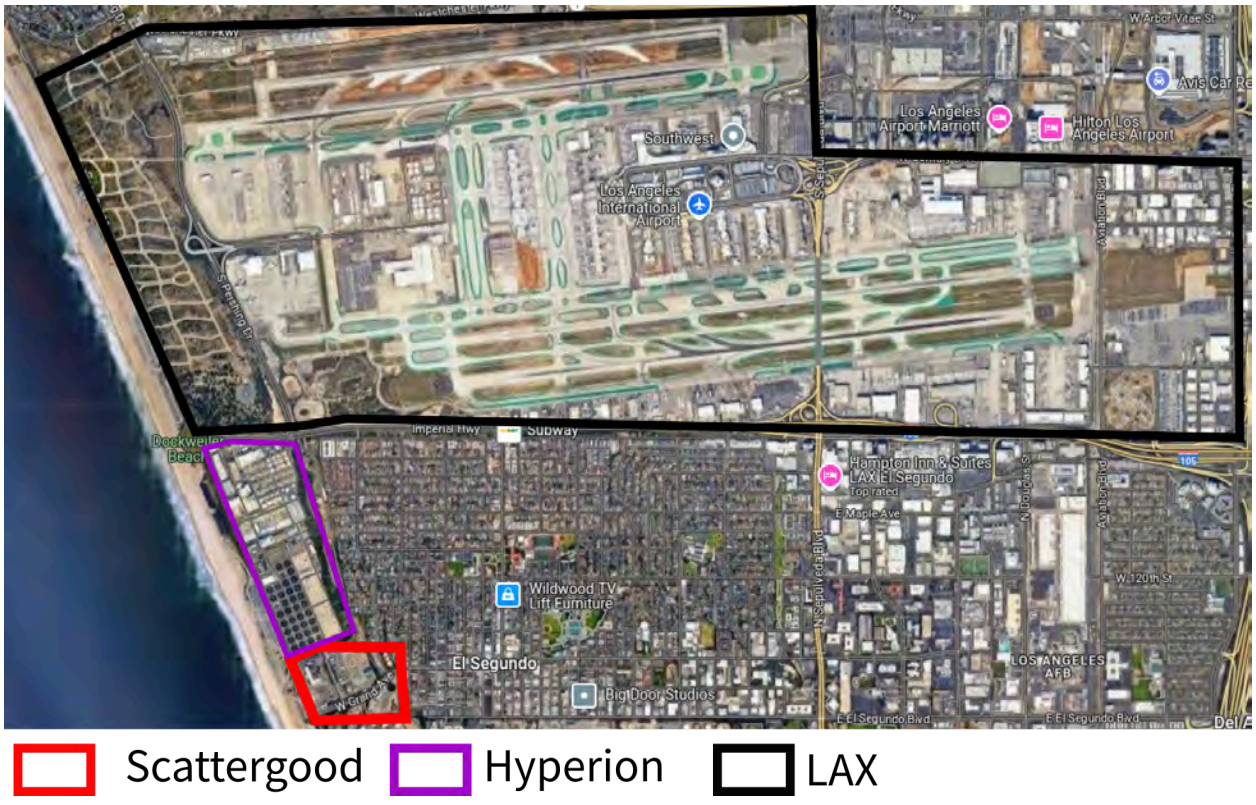
Adjacent-site BESS can help fill gaps in storage, providing a combination of longer-duration or increased capacity while also providing resilience for substantial critical loads. Adjacent to Scattergood is the Hyperion Water Reclamation Site[88] (shown directly north of Scattergood in **Figure**

[87] Los Angeles World Airports. (April 2020). LAX at a Glance: Sustainability. https://www.flylax.com/-/media/flylax/media-center/pdfs/fs---sustainability-april-2020. Accessed Feb 11, 2025.
[88] King County Department of Natural Resources and Parks. Appendix D Overview of Treatment Plants and Processes.

4), the city's largest wastewater treatment facility with a footprint of 144 acres. No physical barriers separate the two, thus minimizing any barriers to facilitating connection. LADWP could lease space on Hyperion's larger footprint to site solar and storage systems. Just four acres of this land would be enough to site the remaining storage needed to meet the capacity of the proposed system using the lower density assumed above of 62 MWh per acre and 18 acres available at Scattergood. This system would also provide enough capacity to run Hyperion at full load for over four hours in the event of an outage.

P95-88 (cont'd)

Adjacent to Hyperion is Los Angeles International Airport (LAX) on a drastically larger parcel of 3,500 acres (**Figure 4**). One road and Hyperion separates LAX from Scattergood, making direct connection to the transmission grid potentially feasible. LADWP could lease land here for siting storage that can also be used to provide backup energy resilience at LAX. Moreover, given that outages at LAX have led to flight cancellations and lost revenue[89], the risk of such outages can be reduced with a BESS. The drastically larger footprint would be ideal for siting BESS with longer durations and reduced fire risk but rated with lower discharge power such as the iron flow batteries with duration of up to 12 hours or the iron-air batteries with durations of 100 hours listed in **Section 6.a.2**. Using FORMs iron-air batteries, only one percent of the parcel would be needed to provide 100 hours of 100 MW generation. Such a BESS, in combination with shorter duration on-site storage, would provide significantly higher resilience to longer-duration disruptions to the grid in alignment with the Project objectives.



[89] CNN. Power outage at LAX airport leaves travelers stranded as airlines cancel flights. June 6, 2019.

Figure 4. Scattergood and Adjacent Facilities. Approximate boundaries of Project site and adjacent Hyperion Water Treatment facility and Los Angeles International Airport (LAX). Satellite imagery data from Google Maps.

P95-88 (cont'd)

Local demand-side management. Peak load for Hyperion is roughly 19 MW.[90] Previously, Hyperion used a cogeneration gas combustion system for electricity using biogas collected from wastewater.[91] However, LADWP and Hyperion switched to an agreement where Hyperion sends biogas to Scattergood in order to earn an improved rate.[92] This existing relationship between these two entities can be built upon to maximize the potential role of using Hyperion's assets and load to meet power needs. There are multiple potential alternatives LADWP could explore to reduce the peak demand from Hyperion. First, the existing agreement could switch from the current flat rate to a time-of-use rate that would encourage shifts in demand. Second, they could set an incentive for demand response which would pay Hyperion for intervals of reduced demand. Many potential options exist for water treatment facilities for municipal utilities to shift the time of their power consumption.[93] These efforts could result in financial savings for both parties and thus savings for utility customers. When combined with a BESS and/or solar system, even greater mutually beneficial opportunities can be achieved.

P95-89

LAX represents an even larger load than Hyperion. From 2017-2021, LAX used an average of 175 GWh annually.[94] While peak load data could not be found, this annual consumption indicates a peak load significantly larger than 20MW. Some generation happens on site and the upgrade to the Central Utility Plant has already developed demand flexibility, which means a portion of the additional potential for shifting demand has already been realized.[95] However, additional shifting may be possible and provide additional incentive to house BESS and solar systems.

Local in-basin distributed generation can also help reduce demand and provide energy to the above proposed BESS. For example, renewables at LAX are currently limited and under active development, including installation of the first solar system of 75 kW in 2021 at the airport police facility.[96] Moreover, Los Angeles World Airports "is exploring on-site power generation at LAX, with a feasibility study

P95-90

[90] King County Department of Natural Resources and Parks. Appendix D Overview of Treatment Plants and Processes. https://your.kingcounty.gov/dnrp/library/wastewater/wtd/pubs/9912Benchmarking/om-appx-d.pdf. Accessed Feb 11, 2025.
[91] ibid
[92] ibid
[93] Lima, Derick, Li Li, and Gregory Appleby. (2024). A Review of Renewable Energy Technologies in Municipal Wastewater Treatment Plants (WWTPs). *Energies* 17.23 (2024): 6084.
[94] Los Angeles World Airports. (n.d.) Sustainability Elements: Energy Management. https://www.lawa.org/lawa-sustainability/sustainability-elements-energy. Accessed February 4, 2025.
[95] Los Angeles World Airports. (2015) LAX Central Utility Plant Fact Sheets. https://www.lawa.org/UI/Lawa/Assets/Sustainability_LAX_files/documents/LAX-Central-Utility-Plant-Fact-Sheets.pdf. Accessed February 4, 2025.
[96] ibid.

suggesting a possible capacity of up to 23.5 megawatts of power".[97] To our knowledge, this capacity is not accounted for in either the LA100 study or the SLTRP. As such, demand-side management through a combination of increased solar, proposed BESS, and the existing generation can minimize demand or even provide power directly to Scattergood while also providing financial savings for both the airport and LADWP. Moreover, these increased energy systems at LAX would provide essential energy resilience to the airport and potentially offset emissions from their current gas generation, thus reducing negative climate and health impacts from LAX.

P95-90 (cont'd)

Furthermore, a survey of nearby clusters of other commercial buildings reveal that the vast majority of commercial rooftops currently do not house solar systems. More research is needed regarding the expected rates of solar deployment in the area and what the cost would be to increase the speed of this deployment even further.

In summary, given this suite of available resources, we recommend the addition of an alternative described as a hybrid BESS/demand-side resource investment. This resource should be informed by the inclusion of estimates of dense BESS deployment from multiple vendors for the existing parcel. It should also include considerations of the major loads being served in the immediate proximity and distributed resources including solar+storage and demand flexibility in West LA more broadly. Importantly, this alternative does not rely on additional capacity from the transmission upgrades discussed above or the non-local alternatives discussed below.

P95-91

Our estimates suggest that, in contradiction to the DEIR, significantly higher levels of local potential energy resources exist and merit further consideration. This alternative, not included in the DEIR, avoids the impacts of the Project discussed both in the DEIR and in the above sections of this report while further reducing existing impacts. Moreover, these resources can simultaneously provide additional benefits including community and operational resilience for critical facilities and grid balancing services. As such, we believe this option is likely environmentally superior to both the proposed project and the proposed Environmentally Superior Alternative of choosing another vendor for the Project.

e. Non-local Alternatives Not Discussed

LADWP states that in-basin generation is key to building a resilient power system in both the LA100 study and the SLTRP. While we agree, there are alternatives to gas/hydrogen combustion that were not fully considered in these proposals. Moreover, since those proposals were written, the cost and feasibility of these alternatives have shifted. While beyond the scope of this analysis, we note that

P95-92

[97] Los Angeles World Airports. (April 2020). LAX at a Glance: Sustainability. https://www.flylax.com/-/media/flylax/media-center/pdfs/fs---sustainability-april-2020. Accessed Feb 11, 2025.

further alternatives beyond the Scattergood area studied exist. We quote from our previous study below.[98]

> *While a full analysis of alternatives to the repowering Scattergood with hydrogen is beyond [the] scope [of] this report, we will note a few technologies that were not fully considered in the SLTRP. For example, LADWP did not fully consider long-duration energy storage technologies, which are also under development but are beginning to build real-world demonstration projects (CEC, 2023c).[99] One study has suggested that all of California's gas plants could be replaced with long-duration energy storage (Go et al., 2023).[100] While these projects will certainly face scale and deployment challenges, much like hydrogen, they should be included in the potential resource deployment mix as candidates for helping reach peak demand. In addition, LADWP did not fully explore the potential for demand management—in particular, utilizing the rapidly electrifying vehicle fleet—to mitigate peak demand. Finally, the state is rapidly moving forward with offshore wind, including sites off the coast of Southern California, which tend to have the highest wind speeds on summer evenings, which aligns relatively well with LADWP's identified time of projected peak demand (Wang et al., 2019;[101] Musial et al., 2016;[102] LADWP, 2022a[103]). It would be valuable to model the impact of integrating this offshore wind supply into LADWP's modeling to identify its impacts on LADWP's identified need for in-basin hydrogen combustion.*

P95-92 (cont'd)

f. Summary of Alternatives

Alternatives to the proposed project exist that do not share the same negative climate, environmental, health, and safety risks while simultaneously mitigating existing impacts.

P95-93

We recommend that LADWP explore in greater depth an alternative entailing on-site BESS to match the majority or all of the generation capacity that is supplemented by solar and storage sited at neighboring facilities, local load flexibility, and distributed resources including solar+storage. In

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[98] PSE Healthy Energy. (2024). Green Hydrogen Proposals Across California. https://www.psehealthyenergy.org/wp-content/uploads/2024/05/Green-Hydrogen-Proposals-Across-California.pdf.

[99] California Energy Commission. (December 13, 2023). "CEC Awards $30 Million to 100-Hour, Long-Duration Energy Storage Project". https://www.energy.ca.gov/news/2023-12/cec-awards-30-million-100-hour-long-duration-energy-storage-project. Accessed Feb 11, 2025.

[100] California Energy Commission. (Dec 2023). Assessing the Value of Long-Duration Energy Storage in California. https://www.energy.ca.gov/sites/default/files/2024-01/CEC-500-2024-003.pdf.

[101] Wang, M., et al. (2022). Power Generation and Mechanical Drivers. *Machinery and Energy Systems for the Hydrogen Economy*, 426-427. https://www.sciencedirect.com/science/article/abs/pii/B9780323903943000060

[102] Wang, Y. H., Walter, R. K., White, C., Farr, H., & Ruttenberg, B. I. (2019). Assessment of surface wind datasets for estimating offshore wind energy along the Central California Coast. *Renewable energy*, *133*, 343-353.

[103] Los Angeles Department of Water and Power. (2022). 2022 Power Strategic Long-Term Resources Plan. https://www.ladwp.com/sites/default/files/2023-08/2022%20LADWP%20Power%20Strategic%20Long-Term%20Resource%20Plan_0.pdf

relation to goal (1), this alternative will provide not only resilience for the grid by serving peak loads, it will also provide resilience for vulnerable populations and critical loads. In relation to goal (2), the resources can be strategically used to be available when needed and the use of a mixture of resources will allow for greater resilience. Storage will need to be charged, but these loads are regularly anticipated and storage can be charged in advance and recently demonstrated technologies have drastically increased both the density and the duration of BESSs. In relation to goal (3), this alternative will provide a greater level of services to the large nearby loads and also additional grid balancing services that a CCGS cannot. In relation to goal (4), this alternative will provide much greater emissions reductions than a CCGS. A more thorough consideration of this proposed hybrid alternative, built on these more established technologies, should be performed before choosing the ideal alternative.

P95-93 (cont'd)

7. Summary

We find that the Project will have negative impacts, not all of which are sufficiently addressed in the DEIR. We further find that alternatives to the Project that could meet the outlined goals while avoiding negative impacts were not sufficiently investigated or were underestimated. We suggest an increased survey of the impacts described above and a more thorough investigation of low-regrets alternatives that avoid these impacts.

P95-94

Environmental & EJ Parties – Scattergood DEIR Comments Exhibit 2

P95-95

South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

XPP 3

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit):
LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):
800075

3. Owner's Business Name (If different from Business Name of Operator):
Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address
Playa Del Rey , CA 90293
City Zip
Abdul Rehman — Plant Manager
Contact Name — Title
(310) 524-8500 — Ext. — Fax #
E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address
Los Angeles , CA 90012
City State Zip
Andrea Villarin — Manager of Air Quality
Contact Name — Title
(213) 367-0409 — Ext. — Fax #
E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:
- ( ) New Construction (Permit to Construct)
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits: 87
- (●) Title V Application or Amendment (Refer to Title V Matrix)
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:
- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 08/26/2026
8b. Estimated End Date of Construction (mm/dd/yyyy): 12/31/2029
8c. Estimated Start Date of Operation (mm/dd/yyyy): 12/31/2029

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Application for Permit to Construct and Permit to Operate – Title V Significant Permit Revision

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process): 0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less **OR** a not-for-profit training center) (●) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (●) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System): 22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (●) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen

18. Title of Responsible Official:
Manager of Steam Generation

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (●) Yes

20. Print Name:
Donald Treinen

21. Date: 4/26/2024

22. Do you claim confidentiality of data? (If Yes, see instructions.) ( ) No (●) Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	652361	700534520	$ 63,212.81	168073	5/3/24

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							E		

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1 of 3

South Coast Air Quality Management District

Form 400 - XPP

Express Permit Processing Request

Form 400-A, Form 400-CEQA and one or more 400-E-xx form(s) must accompany all submittals.

XPP

Mail To:
SCAQMD
P.O Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator To Appear On The Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Section B - Equipment Location Address

3. (●) **Fixed Location** ( ) **Various Location**
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address

Playa Del Rey, CA 90293
City State Zip

Abdul Rehman — Plant Manager
Contact Name — Title

(310) 524-8500 — Ext. — Fax #
Phone # Ext. Fax #

Abdul.Rehman@ladwp.com
E-Mail

Section C - Permit Mailing Address

4. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address

Los Angeles, CA 90012
City State Zip

Andrea Villarin — Manager of Air Quality
Contact Name — Title

(213) 367-0409 — Ext. — Fax #
Phone # Ext. Fax #

Andrea.Villarin@ladwp.com
E-Mail

Section D - Authorization/Signature

I understand that the Expedited Permit Processing fees must be submitted at the time of application submittal, and that the application may be subject to additional fees per Rule 301. I understand that requests for Express Permit Processing neither guarantees action by any specific date nor does it guarantee permit approval; that Express Permit Processing is subject to availability of qualified staff; and that once Express Permit Processing has commenced, the expedited fees will not be refunded. I hereby certify that all information contained herein and information submitted with the application are true and correct.

5. Signature of Responsible Official:	6. Title of Responsible Official:
Donald Treinen	Manager of Steam Generation
7. Print Name of Responsible Official:	**8. Date:**
Donald Treinen	4/26/2024
9. Phone #:	**10. Fax #:**
(213) 367-4372	

AQMD USE ONLY	APPLICATION TRACKING #		TYPE B C	EQUIPMENT CATEGORY CODE:	FEE SCHEDULE: $		VALIDATION
ENG. DATE A R	ENG. DATE A R		CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

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South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit):
LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):
800075

3. Owner's Business Name (If different from Business Name of Operator):
Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address
Playa Del Rey , CA 90293
City Zip
Abdul Rehman — Plant Manager
Contact Name — Title
(310) 524-8500 — Ext. — Fax #
E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address
Los Angeles , CA 90012
City State Zip
Andrea Villarin — Manager of Air Quality
Contact Name — Title
(213) 367-0409 — Ext. — Fax #
E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:
- (●) New Construction (Permit to Construct) 10
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits:
- ( ) Title V Application or Amendment (Refer to Title V Matrix)
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:
- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 08/26/2026
8b. Estimated End Date of Construction (mm/dd/yyyy): 12/31/2029
8c. Estimated Start Date of Operation (mm/dd/yyyy): 12/31/2029

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Application for Permit to Construct and Permit to Operate, Combined Cycle Combustion Turbine Unit 8

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process): 0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less OR a not-for-profit training center) (●) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (●) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System): 22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (●) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen

18. Title of Responsible Official:
Manager of Steam Generation

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (●) Yes

20. Print Name:
Donald Treinen

21. Date: 4/26/2024

22. Do you claim confidentiality of data? (If Yes, see instructions.) ( ) No (●) Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED $	PAYMENT TRACKING #	VALIDATION
	652362	700534520	63,212.81	168079	5/3/24

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							E		

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SCAQMD
PERMIT PROCESSING

'24 MAY -3 P5:10

South Coast Air Quality Management District

Form 400-CEQA
California Environmental Quality Act (CEQA) Applicability

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385
www.aqmd.gov

The SCAQMD is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the SCAQMD in clarifying whether or not the project [1] has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document [CEQA Guidelines § 15060(a)]. Form 400-CEQA and the instructions for guidance on completing this form are available at http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms or http://www.aqmd.gov/home/permits/permit-application-forms. For each Form 400-A application, also complete and submit one Form 400-CEQA. If submitting multiple Form 400-A applications for the same project at the same time, only one Form 400-CEQA is necessary for the entire project. If you need assistance completing this form, contact Permit Services at (909) 396-3385.

Section A – Facility Information

1. Facility Name (Business Name of Operator to Appear on the Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. SCAQMD Facility ID: 800075

3. Project Description: Combined Cycle Combustion Turbine, Unit 8

Section B – Review For Exemption From Further CEQA Action

Check "Yes" or "No" as applicable. If "Yes" is checked for any question in Section B, skip Section C and proceed to page 2 and complete Section D - Signatures.

	Yes	No	Is this application for:
1.	○	⊙	**A request for a change of operator only (without equipment or process change modifications)?**
2.	○	⊙	**A functionally identical permit unit replacement with no increase in equipment unit rating or emissions?**
3.	○	⊙	**A change of daily VOC permit limit to a monthly VOC permit limit?**
4.	○	⊙	**Equipment damaged as a result of a disaster during state of emergency?**
5.	○	⊙	**A Title V** (e.g., SCAQMD Regulation XXX) **permit renewal without equipment or process change modifications?**
6.	○	⊙	**A Title V administrative permit revision?**
7.	○	⊙	**The conversion of an existing permit into an initial Title V permit?**

Section C – Review of Impacts Which May Trigger Further CEQA Review

Check "Yes" or "No" as applicable. To avoid delays in processing your application(s), explain all "Yes" responses on a separate sheet and attach it to this form.

	Yes	No	
1.	○	⊙	**Is this project specifically evaluated in a previously certified or adopted CEQA document?** If "Yes" is checked, attach a copy of the signed Notice of Determination to this form.
2.	○	⊙	**Is this project specifically exempted from CEQA by another entity (e.g., city or agency)?** If "Yes" is checked, attach a copy of the signed Notice of Exemption or other documentation from the entity to this form.
3.	○	⊙	**Is this project part of a larger project?** If "Yes" is checked, attach a separate sheet to briefly describe the larger project.
4.	○	⊙	**Will the project increase the QUANTITY of hazardous materials stored aboveground onsite or transported by mobile vehicle to or from the site by greater than or equal to the amounts associated with each compound listed on Form 400-CEQA, Table 1 - Regulated Substances List and Threshold Quantities for Accidental Release Prevention** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each hazardous material and corresponding quantity to be transported, stored, or used.
5.	○	⊙	**Will the project emit any air toxic listed on Form 400-CEQA, Table 2 - Other Air Toxics and Their Screening Levels** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms] [2]**?** If "Yes" is checked, attach a separate sheet to identify each air toxic and corresponding quantity to be emitted.
6.	⊙	○	**Will the project require any demolition, excavation, and/or grading construction activities that encompass an area exceeding 20,000 square feet?**

[1] A "project" means the whole of an action which has a potential for resulting in physical change to the environment, including construction activities, clearing or grading of land, improvements to existing structures, and activities or equipment involving the issuance of a permit. For example, a project might include installation of a new, or modification of an existing internal combustion engine, dry cleaning facility, boiler, gas turbine, spray coating booth, solvent cleaning tank, etc

[2] Form 400-CEQA, Table 2 – Other Air Toxics and Their Screening Levels, contains a list of air toxics that either do not have a cancer potency (CP) or reference exposure level (REL) approved by the Office of Environmental Health Hazards Assessment (OEHHA) or have a combination of OEHHA-approved and non-approved CPs or RELs.

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Section C – Review of Impacts Which May Trigger Further CEQA (concluded)

	Yes	No	
7.	◉	○	**Will the project utilize a boiler, engine, or other combustion equipment that uses fuel (e.g., gasoline, diesel, natural gas, liquefied petroleum gas (LPG), or landfill gas)?** If "Yes" is checked, then the applicant will need to calculate the amount of GHGs from fuel use via on the Greenhouse Gas (GHG) online estimator [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms], and attaching the printout or by conducting hand calculations and providing the documentation. Refer to the Instructions for Form 400-CEQA for guidance.
8.	○	◉	**Will the project utilize other types of equipment not addressed in Question 7 that require the use of, or will generate, any chemicals listed on Form 400-CEQA, Table 3 - Greenhouse Gases** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each equipment unit, the chemical name(s), and the quantity of each chemical identified.
9.	○	◉	**Will the project include the open outdoor storage of dry bulk solid materials that could generate dust?** If "Yes" is checked, include a plot plan with the application package.
10.	○	◉	**Will the project result in or make worse noticeable off-site odors from activities that may not be subject to SCAQMD permit requirements?** For example, landfills, materials recovery/recycling facilities (MRF), and compost materials or other types of greenwaste (e.g., lawn clippings, tree trimmings, etc.) have the potential to generate odor complaints subject to SCAQMD Rule 402 – Nuisance.
11.	○	◉	**Will the project cause an increase of emissions from marine vessels, trains and/or airplanes?**
12.	○	◉	**Will the project increase demand for potable water at the facility by more than 262,820 gallons per day?** The following examples identify some, but not all, types of projects that may result in a "Yes" answer to this question: 1) a project that generates steam; 2) a project that uses water as part of operating air pollution control equipment; 3) a project that requires water as part of the production process; 4) a project that requires a new, or the expansion of an existing, sewage treatment facility, new water lines, sewage lines, sewage hook-ups etc.; 5) a project where the water demand exceeds the capacity of the local water purveyor to supply sufficient water for the project; 6) a project that requires new or the expansion of existing, water supply and conveyance facilities; and, 7) a project that requires water to hydrotest pipelines, storage tanks etc. for structural integrity.
13.	◉	○	**Will the project create an increase in the mass inflow of effluents to a public wastewater treatment facility that would require a new, or revision to an existing, National Pollutant Discharge Elimination System (NPDES) or other related permit at the facility?**
14.	○	◉	**Will the project result in the need for more than 350 new employees?**
15.	○	◉	**Will the project result in an increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round-trips per day?**
16.	○	◉	**Will the project result in an increase in customer traffic by more than 700 visits per day?**
17.	○	◉	**Will the project result in temporary or permanent noise or vibration in excess of what is allowed by the applicable local noise ordinance?**
18.	○	◉	**Will the project create a permanent need for new or additional solid waste disposal?** Check "No" if the projected potential amount of solid waste to be generated by the project is less than five tons per day.
19.	○	◉	**Will the project create a permanent need for new or additional hazardous waste disposal?** Check "No" if the projected potential amount of hazardous wastes to be generated by the project is less than 42 cubic yards per day (or equivalent in pounds).
20.	○	◉	**Will the project include equipment that after installation or modification will change the visual character of the site and its surroundings or block views?**
21.	○	◉	**Will the project have equipment that will create a new source of external lighting that will be visible at the property line?**

Section D – SIGNATURES

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THIS FORM IS A SCREENING TOOL AND THAT THE SCAQMD RESERVES THE RIGHT TO CONSIDER OTHER PERTINENT INFORMATION IN DETERMINING CEQA APPLICABILITY.

1. Signature of Responsible Official of Firm: Donald Treinen		2. Title of Responsible Official of Firm: Manager of Steam Generation
3. Print Name of Responsible Official of Firm: Donald Treinen		4. Date Signed: 4/26/2024
5. Phone # of Responsible Official of Firm: (213) 367-4372	6. Fax # of Responsible Official of Firm:	7. Email of Responsible Official of Firm: Donald.Treinen@ladwp.com
8. Signature of Preparer, (If prepared by person other than responsible official of firm): A Villarin		9. Title of Preparer: Manager of Air Quality
10. Print Name of Preparer: Andrea Villarin		11. Date Signed: 04/26/2024
12. Phone # of Preparer: (213) 367-0409	13. Fax # of Preparer:	14. Email of Preparer: Andrea.Villarin@ladwp.com

THIS CONCLUDES FORM 400-CEQA. INCLUDE THIS FORM AND ANY ATTACHMENTS WITH FORM 400-A.

© South Coast Air Quality Management District, Form 400-CEQA (2017.12)

400-CEQA AQMD Greenhouse Gas Estimator

Facility Name	Scattergood Generating Station
Facility ID	800075
Project Description	Installation of combined cycle unit

GHG Calculation: CO_2e MT/yr = [lb/yr CO_2 + (25* lb/yr CH_4) + (298 *lb/yr N_2O)] * [1 MT/2,205 lb]

Equipment Description	Equipment Type	Fuel Type	Equipment Rating (MMBtu/hr)	Operating Schedule			Greenhouse Gas Emissions			
				Hours/day	Days/wk	Weeks/yr	CO_2 (lbs/yr)	CH_4 (lbs/yr)	N_2O (lbs/yr)	CO_2 eq (MT/yr)
Combined Cycle Unit, abl	Engine-Prime Power	Natural Gas	2351.2	24	7	52	2.40E+09	4.53E+04	4.53E+03	1.09E+06
Please note that a more detailed set of GHG calculations is provided as part of the permit applications.										

Equipment Description	Equipment Type	Fuel Type	Equipment Rating (MMBtu/hr)	Operating Schedule			Greenhouse Gas Emissions			
				Hours/day	Days/wk	Weeks/yr	CO_2 (lbs/yr)	CH_4 (lbs/yr)	N_2O (lbs/yr)	CO_2 eq (MT/yr)
						Total	2.40E+09	4.53E+04	4.53E+03	1.09E+06

Emission Factor
(same emission factor for all combustion equipment types)

	kg/mmBtu			lb/mmBtu			Note
Fuel Type	**CO_2**	**CH_4**	**N_2O**	**CO_2**	**CH_4**	**N_2O**	
Diesel	73.96	0.003	0.0006	163.01	6.61E-03	1.32E-03	From Distillate Fuel Oil No.2
Gasoline	70.22	0.003	0.0006	154.76	6.61E-03	1.32E-03	From Motor Gasoline
Landfill Gas	52.07	0.0032	0.00063	114.76	7.05E-03	1.39E-03	
LPG	61.71	0.003	0.0006	136.01	6.61E-03	1.32E-03	
Natural Gas	53.06	0.001	0.0001	116.94	2.20E-03	2.20E-04	

Data Source: https://www.ecfr.gov/cgi-bin/text-idx?SID=1d653629ba1ed0a9fee443920aa261e0&mc=true&node=ap40.23.98_138.1&rgn=div9
https://www.ecfr.gov/cgi-bin/text-idx?SID=5d2c6b432404dc9cfd5fb33ac1becb5b&mc=true&node=ap40.23.98_138.2&rgn=div9

40 CFR Subpart 98: Table C-1 to Subpart C of Part 98—Default CO2 Emission Factors and High Heat Values for Various Types of Fuel [78 FR 71950, Nov. 29, 2013]
Table C-2 to Subpart C of Part 98—Default CH4 and N2O Emission Factors for Various Types of Fuel [78 FR 71952, Nov. 29, 2013]

Equipment Type	Fuel Type
Boiler-Commercial	Diesel
Boiler-Industrial	Gasoline
Engine-Agricultural	Landfill Gas
Engine-Emergency	LPG
Engine-Prime Power	Natural Gas
Other Combustion Equipment	

South Coast Air Quality Management District

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator To Appears On The Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(●) **Fixed Location** ( ) **Various Locations**

Section B - Location Data

Plot Plan

Please attach a site map for the project with distances and scales. Identify and locate the proposed equipment on the map. A copy of the appropriate Thomas Brothers page, a web-based map, or a sketch that shows the major streets and location of the equipment is acceptable.

Location of Schools Nearby

Is the facility located within a 1/4 mile radius (1,320 feet) of the outer boundary of a school? ( ) Yes (●) No

If yes, please provide name(s) of school(s) below:

School Name: _____ **School Name:** _____

School Address: _____ **School Address:** _____

Distance from stack or equipment vent to the outer boundary of the school: _____ feet

Distance from stack or equipment vent to the outer boundary of the school: _____ feet

CA Health & Safety Code 42301.9: "School" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.

Population Density

(●) Urban ( ) Rural (<50% of land within 3 km radius accounted for by urban land use categories, i.e., multi-family dwelling or industrial.)

Zoning Classification

(●) **Mixed Use Residential Commercial Zone (M-U)** ( ) **Service and Professional Zone (C-S)** ( ) **Medium Commercial (C-3)**

( ) **Heavy Commercial (C-4)** ( ) **Commercial Manufacturing (C-M)**

Section C - Emission Release Parameters - Stacks, Vents

Stack Data

Stack Height: 213.00 feet (above ground level) **What is the height of the closest building nearest the stack?** 111 feet

Stack Inside Diameter: _____ inches **Stack Flow:** 1,265,633 acfm **Stack Temperature:** _____ °F

Rain Cap Present: ( ) Yes (●) No **Stack Orientation:** (●) Vertical ( ) Horizontal

If the stack height is less than 2.5 times the closest building height (H), please provide information on any building within 5xH distance from the stack (attach additional sheet if necessary):

Building #/Name: See attached sheet. **Building #/Name:** _____

Building Height: _____ feet (above ground level) **Building Height:** _____ feet (above ground level)

Building Width: _____ feet **Building Width:** _____ feet

Building Length: _____ feet **Building Length:** _____ feet

Receptor Distance From Equipment Stack or Roof Vents/Openings

Distance to nearest residence or sensitive receptor*: 1,270 feet

Distance to nearest business: 1,040 feet

Building Information

Are the emissions released from vents and/or openings from a building? ( ) Yes (●) No

If yes, please provide:

Building #/Name: _____ **Building Width:** _____ feet

Building Height: _____ feet (above ground level) **Building Length:** _____ feet

*AQMD Rule 1470 defines SENSITIVE RECEPTOR as meaning any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

©South Coast Air Quality Management District, Form 400-PS (2015.04)

South Coast Air Quality Management District

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Signature of Preparer:	Title of Preparer:	Preparer's Phone #: (213) 367-6332
Teja Ganapa	Environ. Eng Assoc.	Preparer's Email: Tejasree.Ganapa@ladwp.com

Contact Person:	Contact's Phone#:	Date Signed:
Andrea Villarin	2133670409	4/30/2024
Contact's Email: Manager of Air Quality	Contact's Fax#:	

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information: ☒

South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(•) Fixed Location ( ) Various Locations

Section B - Equipment Description

Turbine

Manufacturer: General Electric **Model:** 7F.05 **Serial No.:**

Size (based on Higher Heating Value - HHV):

Manufacturer Maximum Input Rating: _____ MMBTU/hr _____ kWh

Manufacturer Maximum Output Rating: 2,351.20 MMBTU/hr _____ kWh

Function (Check all that apply)

☒ Electrical Generation ☐ Driving Pump/Compressor ☐ Emergency Peaking Unit
☐ Steam Generation ☐ Exhaust Gas Recovery ☐ Other (specify): _____

Cycle Type

( ) Simply Cycle ( ) Regenerative Cycle
(•) Combined Cycle ( ) Other (specify): _____

Combustion Type

( ) Tubular (•) Can-Annular ( ) Annular

Fuel (Turbine)

☒ Natural Gas ☐ LPG ☐ Digester Gas*
☐ Landfill Gas* ☐ Propane ☐ Refinery Gas* ☒ Other*: hydrogen

* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).

Heat Recovery Steam Generator (HRSG)

Steam Turbine Capacity: 121.5 MW

Low Pressure Steam Output Capacity: _____ lb/hr @ _____ °F

High Pressure Steam Output Capacity: _____ lb/hr @ _____ °F

Superheated Steam Output Capacity: _____ lb/hr @ _____ °F

Duct Burner

Manufacturer: **Model:**

Number of burners: _____ **Rating of each burner** (HHV): _____

Type: ( ) Low NOx (please attach manufacturer's specifications)

( ) Other: _____
Show all heat transfer surface locations with the HRSG and temperature profile

Fuel (Duct Burner)

( ) Natural Gas ( ) LPG ( ) Digester Gas*
( ) Landfill Gas* ( ) Propane ( ) Refinery Gas* ( ) Other*: _____

* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).

© South Coast Air Quality Management District, Form 400-E-12 (2014.07)

South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section B - Equipment Description (Cont.)

Air Pollution Control

- (●) Selective Catalytic Reduction (SCR)* ( ) Selective Non-Catalytic Reduction (SNCR)*
- ( ) Oxidation Catalyst* ( ) Other (specify)*: _____
- ( ) Steam/Water Injection: Injection Rate: _____ lbs. water/lbs. fuel, or _____ mole water/mole fuel

* Separate application is required.

Capital Cost: _____ Installation Cost: _____ Annual Operating Cost: _____

Oxidation Catalyst Data (If Applicable)

Manufacturer: BASF or equal Model: TBD

Catalyst Dimensions: Length: _____ ft. _____ in. Width: _____ ft. _____ in. Height: _____ ft. _____ in.

Catalyst Cell Density: _____ cells/sq.in. Pressure Drop Across Catalyst: _____

Manufacturer's Guarantee: CO Control Efficiency: _____ % Catalyst Life: 3 yrs

VOC Control Efficiency: _____ % Operating Temp. Range: _____ °F

Space Velocity (gas flow rate/catalyst volume): 48400 Area Velocity (gas flow/wetted catalyst surface area): _____

VOC Concentration into Catalyst: _____ PPMVD@ 15%O_2 CO Concentration inot Catalyst: _____ PPMVD@ 15%O_2

Section C - Operation Information

On-line Emissions Data

Pollutants	Maximum Emissions Before Control *		Maximum Emissions After Control	
	PPM@15% O_2, dry	lb/hour	PPM@15% O_2, dry	lb/hour
ROG			2	5.93
NOx			2	17.06
CO			1.5	7.79
PM_{10}				8.22
SOx				1.64
NH_3			5	15.76

* Based on temperature, fuel consumption, and MW output.

Reference (attach data):

☒ Manufacturer Emission Data ☐ EPA Emission Factors ☐ AQMD Emission Factors ☐ Source Test

Stack or Vent Data

Stack Height: 213 ft. _____ in. Stack Diameter: 19 ft. _____ in.

Exhaust Temperature: _____ °F Exhaust Pressure: _____ inches water column

Exhaust Flow Rate: 1265633 CFM Oxygen Level: 12.31 %

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ATTACHMENT 1

Form 400-PS Attachment
Details of Buildings Included in Building Downwash Calculations

Scattergood Generating Station
Units 1 and 2 Green Hydrogen-Ready Modernization Project
GE Option

	Building Name	Building ID	Height, ft	Length, ft	Width, ft
1	GE -7FA Heat Recovery Steam Generator	HRSG45	91.0	28.0	87.1
2	Air Cooled Condenser- Units 4 and 5	ACC45	113.5	134.5	219.2
3	Unit 7 (LMS100 SCR/CO Catalyst Housing)	SCR7	38.0	25.0	23.0
4	Unit 7 (ACHE Electrical Module)	AEM7	20.0	14.0	31.0
5	Unit 7 (Power Control Module)	PCM7	20.0	50.3	15.4
6	Unit 6 (LMS100 SCR/CO Catalyst Housing)	SCR6	38.0	25.0	23.0
7	Unit 6 (ACHE Electrical Module)	AEM6	22.5	31.0	14.0
8	Unit 6 (Power Control Module)	PCM6	20.0	50.3	15.3
9	Medium Voltage PDC	MVPDC	24.7	29.0	70.0
10	Plant Control Room (New Building)	PCR	75.7	137.9	30.2
11	Warehouse (New Building)	WHSE	35.0	44.0	149.9
12	Unit 6 (LMS100)- ACHE Intercooler	ACHE6A	25.0	100.4	58.7
13	Unit 6 (Uv1S100)- ACHE Aux Cooling	ACHE6B	25.0	40.5	58.8
14	Unit 7 (LMS100)- ACHE Intercooler	ACHE7A	25.0	47.6	118.8
15	Unit 7 (LMS100)- ACHE Aux Cooling	ACHE7B	25.0	42.6	58.8
16	Wet Surface Air Cooler- Units 4 & 5	WSAC45	22.0	25.8	28.1
17	Black Start Generator- Enclosure	EGD	13.0	52.2	11.5
18	New Wastewater Storage Tanks (T9)	T9	44.0	-	45 Dia.
19	New Wastewater Storage Tanks (T10)	T10	44.0	-	45 Dia.
20	Admin Building - Office Bay	FF	29.3	101.9	40.0
21	Unit 1& 2 Turbine Generator Bay	TGB	56.5	383.0	78.2
22	Unit 1&2 Boiler Bay	AA_BB	103.0	233.5	88.1
23	Machine Shop - Service Bay	WAREHOUSE	32.6	60.0	139.2
24	Electric, Carpenter & Instrument Shops, Offices, Lab & Parts Service - Service Bay	SHOPS	18.1	60.2	139.2
25	NN Building 2 (existing cooling tower)	NN	45.0	29.9	36.0
26	Tank 1	T1	38.1	-	75 Dia.
27	Tank 2	T2	38.1	-	75 Dia.
28	Tank 3	T3	37.5	-	90 Dia.
29	Tank 4	T4	24.0	-	60 Dia.
30	Tank 5	T5	48.0	-	162 Dia.
31	New Switchyard Building	NSYB	14.7	35.3	49.3
32	Old Switchyard Building	OSYB	12.7	20.4	16.0
33	GE -7FA Heat Recovery Steam Generator	HRSG89	91.0	40.0	82.0
34	Air Cooled Condenser- Units 8 & 9	ACC89	111.0	134.0	265.0
35	Wet Surface Air Cooler - Units 8 & 9	WSAC89	22.0	26.0	40.0

South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section C - Operation Information (cont.)

Startup Data

No. of Startups per day: _____ No. of Startups per year: 792 Duration of each startup: _____ hrs.

Shutdown Data

No. of Shutdowns per day: _____ No. of Shutdowns per year: 792 Duration of each Shutdown: _____ hrs.

Startup and Shutdown Emissions Data

Pollutants	Startup Emissions		Shutdown Emissions	
	PPM@15% O_2, dry	lb/hour	PPM@15% O_2, dry	lb/hour
ROG				
NOx				
CO				
PM_{10}				
SOx				
NH_3				

Monitoring and Reporting

Continuous Emission Monitoring System (CEMS): CEMS Make: _____

CEMS Model: _____

Will the CEMS be used to measure both on-line and startup/shutdown emissions? (•) Yes ( ) No

The following parameters will be continuously monitored:

☒ NOx ☒ CO ☒ O_2

☒ Fuel Flow Rate ☒ Ammonia Injection Rate ☐ Other (specify): _____

☐ Ammonia Stack Concentration: Ammonia CEMS Make: _____

Ammonia CEMS Model: _____

Operating Schedule

Normal: 24 hours/day 7 days/week 52 weeks/yr

Maximum: 24 hours/day 7 days/week 52 weeks/yr

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info

Signature: Tejo Ganapa Date: 4/30/2024

Title: Environ. Eng Assoc. Company Name: LADWP

Name: Tejasree Ganapa

Phone #: (213) 367-6332 Fax #: _____

Email: tejasree.ganapa@ladwp.com

Contact Info

Name: Andrea Villarin

Title: Manager of Air Quality Company Name: LADWP

Phone #: (213) 367-0409 Fax #: _____

Email: andrea.villarin@ladwp.com

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☒

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South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

XPP

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit):
LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):
800075

3. Owner's Business Name (If different from Business Name of Operator):
Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address

Playa Del Rey , CA 90293
City Zip

Abdul Rehman — Plant Manager
Contact Name — Title

(310) 524-8500 — Ext. — Fax #
Phone #

E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address

Los Angeles , CA 90012
City State Zip

Andrea Villarin — Manager of Air Quality
Contact Name — Title

(213) 367-0409 — Ext. — Fax #
Phone #

E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:

10

(●) New Construction (Permit to Construct)
( ) Equipment On-Site But Not Constructed or Operational
( ) Equipment Operating Without A Permit *
( ) Compliance Plan
( ) Registration/Certification
( ) Streamlined Standard Permit

7b. Facility Permits:

( ) Title V Application or Amendment (Refer to Title V Matrix)
( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:

( ) Administrative Change
( ) Alteration/Modification
( ) Alteration/Modification without Prior Approval *
( ) Change of Condition
( ) Change of Condition without Prior Approval *
( ) Change of Location
( ) Change of Location without Prior Approval *
( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 08/26/2026

8b. Estimated End Date of Construction (mm/dd/yyyy): 12/31/2029

8c. Estimated Start Date of Operation (mm/dd/yyyy): 12/31/2029

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Application for Permit to Construct and Permit to Operate, SCR/CO Catalyst, Combined Cycle Combustion Turbine Unit 8

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process): 0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less **OR** a not-for-profit training center) (●) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (●) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System): 22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (●) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen

18. Title of Responsible Official:
Manager of Steam Generation

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (●) Yes

20. Print Name:
Donald Treinen

21. Date: 4/26/2024

22. Do you claim confidentiality of data? (If Yes, see instructions.) ( ) No (●) Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	652363	700534520	63,212.81	168273	5/3/24 D

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							2		

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3 of 3

South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(●) Fixed Location ( ) Various Locations

Section B - Equipment Description

Selective Catalytic Reduction (SCR)

SCR Catalyst

Manufacturer: Cormetech or equal — Catalyst Active Material:

Model Number: TBD — Type: Ti-V-W

Size of Each Layer or Module: L:___ ft.___ in. W:___ ft.___ in. H:___ ft.___ in.

No. of Layers or Modules:___ Total Volume: 2300 cu. ft. Total Weight:___ lbs.

Reducing Agent

( ) Urea ( ) Anhydrous Ammonia (●) Aqueous Ammonia 29.00 % — Injection Rate: 433.4 lb/hr

Reducing Agent Storage*

Diameter:___ ft.___ in. Height:___ ft.___ in. Capacity: 90000 gal

Pressure Setting:___ psia * A separate permit may be needed for the storage equipment.

Space Velocity

Gas Flow Rate/Catalyst Volume: 48400 per hour

Area Velocity

Gas Flow Rate/Wetted Catalyst Surface Area:___ ft/hr

Manufacturer's Guarantee

NOx: 2 ppm $\%O_2$: 15.00 NOx:___ gm/bhp-hr Ammonia Slip: 5 ppm @ 15.00 $\%O_2$

Catalyst Life

3 years (expected)

Cost

Capital Cost:___ Installation Cost:___ Catalyst Replacement Cost:___

Oxidation Catalyst

Oxidation Catalyst

Manufacturer: BASF or equal — Catalyst Active Material:

Model Number: TBD — Type: Platinum, corrugated SS substrate

Size of Each Layer or Module: L:___ ft.___ in. W:___ ft.___ in. H:___ ft.___ in.

No. of Layers or Modules:___ Total Volume: 2100 cu. ft. Total Weight:___ lbs.

Space Velocity

Gas Flow Rate/Catalyst Volume: 92700 per hour

Manufacturer's Guarantee

VOC: 2 ppm VOC:___ gm/bhp-hr $\%O_2$: 15.00

CO: 1.5 ppm CO:___ gm/bhp-hr $\%O_2$: 15

Catalyst Life

3 years (expected)

Cost

Capital Cost:___ Installation Cost:___ Catalyst Replacement Cost:___

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South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section B - Equipment Description (cont.)

Ammonia Catalyst

Ammonia Catalyst	Manufacturer: _____ Catalyst Active Material: _____ Model Number: _____ Type: _____ Size of Each Layer or Module: L: _____ ft. _____ in. W: _____ ft. _____ in. H: _____ ft. _____ in. No. of Layers or Modules: _____ Total Volume: _____ cu. ft. Total Weight: _____ lbs.
Space Velocity	Gas Flow Rate/Catalyst Volume: _____ per hour
Manufacturer's Guarantee	NH_3: _____ ppm $\%O_2$: _____
Catalyst Life	_____ years (expected)
Cost	Capital Cost: _____ Installation Cost: _____ Catalyst Replacement Cost: _____

Section C - Operation Information

Operating Temperature	Minimum Inlet Temperature: _____ °F (from cold start) Maximum Temperature: _____ °F Warm-up Time: _____ hr. _____ min. (maximum)
Operating Schedule	Normal: 24 hours/day 7 days/week 52 weeks/yr Maximum: 24 hours/day 7 days/week 52 weeks/yr

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info	Signature: Leja Ganapa Date: 4/30/2024 Title: Environ. Eng Assoc. Company Name: LADWP	Name: Tejasree Ganapa Phone #: (213) 367-6332 Fax #: Email: Tejasree.Ganapa@ladwp.com
Contact Info	Name: Andrea Villarin Title: Manager of Air Quality Company Name: LADWP	Phone #: (213) 367-0409 Fax #: Email: Andrea.Villarin@ladwp.com

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☒

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South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit):
LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):
800075

3. Owner's Business Name (If different from Business Name of Operator):
Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address

Playa Del Rey , CA 90293
City Zip

Abdul Rehman — Contact Name
Plant Manager — Title
(310) 524-8500 — Phone # — Ext. — Fax #
E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address

Los Angeles , CA 90012
City State Zip

Andrea Villarin — Contact Name
Manager of Air Quality — Title
(213) 367-0409 — Phone # — Ext. — Fax #
E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:
- ( ) New Construction (Permit to Construct)
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits:
- (●) Title V Application or Amendment (Refer to Title V Matrix) 74
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:
- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy):
8b. Estimated End Date of Construction (mm/dd/yyyy):
8c. Estimated Start Date of Operation (mm/dd/yyyy):

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
5-YEAR TITLE V PERMIT RENEWAL

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process)
0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less **OR** a not-for-profit training center) (●) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (●) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Electric Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System)
22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (●) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen

18. Title of Responsible Official:
Manager of Steam Generation

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (●) Yes

20. Print Name:
Donald Treinen

21. Date: 7/2/2024

22. Do you claim confidentiality of data? (If Yes, see instructions.) (●) No ( ) Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	654375 MW	10247	$ 4,135.79	169161	7/17/24 se

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							RA		

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24 JUL 17 A8:23

S.C.A.Q.M.D.
PERMIT PROCESSING

South Coast Air Quality Management District

Form 400-CEQA
California Environmental Quality Act (CEQA) Applicability

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385
www.aqmd.gov

The SCAQMD is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the SCAQMD in clarifying whether or not the project [1] has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document [CEQA Guidelines § 15060(a)]. Form 400-CEQA and the instructions for guidance on completing this form are available at http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms or http://www.aqmd.gov/home/permits/permit-application-forms. For each Form 400-A application, also complete and submit one Form 400-CEQA. If submitting multiple Form 400-A applications for the same project at the same time, only one Form 400-CEQA is necessary for the entire project. If you need assistance completing this form, contact Permit Services at (909) 396-3385.

Section A – Facility Information

1. Facility Name (Business Name of Operator to Appear on the Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. SCAQMD Facility ID: 800075

3. Project Description: 5-YEAR TITLE V PERMIT RENEWAL

Section B – Review For Exemption From Further CEQA Action

Check "Yes" or "No" as applicable. If "Yes" is checked for any question in Section B, skip Section C and proceed to page 2 and complete Section D - Signatures.

	Yes	No	Is this application for:
1.	○	◉	**A request for a change of operator only (without equipment or process change modifications)?**
2.	○	◉	**A functionally identical permit unit replacement with no increase in equipment unit rating or emissions?**
3.	○	◉	**A change of daily VOC permit limit to a monthly VOC permit limit?**
4.	○	◉	**Equipment damaged as a result of a disaster during state of emergency?**
5.	◉	○	**A Title V** (e.g., SCAQMD Regulation XXX) **permit renewal without equipment or process change modifications?**
6.	○	◉	**A Title V administrative permit revision?**
7.	○	◉	**The conversion of an existing permit into an initial Title V permit?**

Section C – Review of Impacts Which May Trigger Further CEQA Review

Check "Yes" or "No" as applicable. To avoid delays in processing your application(s), explain all "Yes" responses on a separate sheet and attach it to this form.

	Yes	No	
1.	○	◉	**Is this project specifically evaluated in a previously certified or adopted CEQA document?** If "Yes" is checked, attach a copy of the signed Notice of Determination to this form.
2.	○	◉	**Is this project specifically exempted from CEQA by another entity (e.g., city or agency)?** If "Yes" is checked, attach a copy of the signed Notice of Exemption or other documentation from the entity to this form.
3.	○	◉	**Is this project part of a larger project?** If "Yes" is checked, attach a separate sheet to briefly describe the larger project.
4.	○	◉	**Will the project increase the QUANTITY of hazardous materials stored aboveground onsite or transported by mobile vehicle to or from the site by greater than or equal to the amounts associated with each compound listed on Form 400-CEQA, Table 1 - Regulated Substances List and Threshold Quantities for Accidental Release Prevention** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each hazardous material and corresponding quantity to be transported, stored, or used.
5.	○	◉	**Will the project emit any air toxic listed on Form 400-CEQA, Table 2 - Other Air Toxics and Their Screening Levels** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms] [2]**?** If "Yes" is checked, attach a separate sheet to identify each air toxic and corresponding quantity to be emitted.
6.	○	◉	**Will the project require any demolition, excavation, and/or grading construction activities that encompass an area exceeding 20,000 square feet?**

[1] A "project" means the whole of an action which has a potential for resulting in physical change to the environment, including construction activities, clearing or grading of land, improvements to existing structures, and activities or equipment involving the issuance of a permit. For example, a project might include installation of a new, or modification of an existing internal combustion engine, dry cleaning facility, boiler, gas turbine, spray coating booth, solvent cleaning tank, etc

[2] Form 400-CEQA, Table 2 – Other Air Toxics and Their Screening Levels, contains a list of air toxics that either do not have a cancer potency (CP) or reference exposure level (REL) approved by the Office of Environmental Health Hazards Assessment (OEHHA) or have a combination of OEHHA-approved and non-approved CPs or RELs.

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Section C – Review of Impacts Which May Trigger Further CEQA (concluded)

	Yes	No	
7.	○	⊙	**Will the project utilize a boiler, engine, or other combustion equipment that uses fuel (e.g., gasoline, diesel, natural gas, liquefied petroleum gas (LPG), or landfill gas)?** If "Yes" is checked, then the applicant will need to calculate the amount of GHGs from fuel use via on the Greenhouse Gas (GHG) online estimator [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms], and attaching the printout or by conducting hand calculations and providing the documentation. Refer to the Instructions for Form 400-CEQA for guidance.
8.	○	⊙	**Will the project utilize other types of equipment not addressed in Question 7 that require the use of, or will generate, any chemicals listed on Form 400-CEQA, Table 3 - Greenhouse Gases** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each equipment unit, the chemical name(s), and the quantity of each chemical identified.
9.	○	⊙	**Will the project include the open outdoor storage of dry bulk solid materials that could generate dust?** If "Yes" is checked, include a plot plan with the application package.
10.	○	⊙	**Will the project result in or make worse noticeable off-site odors from activities that may not be subject to SCAQMD permit requirements?** For example, landfills, materials recovery/recycling facilities (MRF), and compost materials or other types of greenwaste (e.g., lawn clippings, tree trimmings, etc.) have the potential to generate odor complaints subject to SCAQMD Rule 402 – Nuisance.
11.	○	⊙	**Will the project cause an increase of emissions from marine vessels, trains and/or airplanes?**
12.	○	⊙	**Will the project increase demand for potable water at the facility by more than 262,820 gallons per day?** The following examples identify some, but not all, types of projects that may result in a "Yes" answer to this question: 1) a project that generates steam; 2) a project that uses water as part of operating air pollution control equipment; 3) a project that requires water as part the production process; 4) a project that requires a new, or the expansion of an existing, sewage treatment facility, new water lines, sewage lines, sewage hook-ups etc.; 5) a project where the water demand exceeds the capacity of the local water purveyor to supply sufficient water for the project; 6) a project that requires new or the expansion of existing, water supply and conveyance facilities; and, 7) a project that requires water to hydrotest pipelines, storage tanks etc. for structural integrity.
13.	○	⊙	**Will the project create an increase in the mass inflow of effluents to a public wastewater treatment facility that would require a new, or revision to an existing, National Pollutant Discharge Elimination System (NPDES) or other related permit at the facility?**
14.	○	⊙	**Will the project result in the need for more than 350 new employees?**
15.	○	⊙	**Will the project result in an increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round-trips per day?**
16.	○	⊙	**Will the project result in an increase in customer traffic by more than 700 visits per day?**
17.	○	⊙	**Will the project result in temporary or permanent noise or vibration in excess of what is allowed by the applicable local noise ordinance?**
18.	○	⊙	**Will the project create a permanent need for new or additional solid waste disposal?** Check "No" if the projected potential amount of solid waste to be generated by the project is less than five tons per day.
19.	○	⊙	**Will the project create a permanent need for new or additional hazardous waste disposal?** Check "No" if the projected potential amount of hazardous wastes to be generated by the project is less than 42 cubic yards per day (or equivalent in pounds).
20.	○	⊙	**Will the project include equipment that after installation or modification will change the visual character of the site and its surroundings or block views?**
21.	○	⊙	**Will the project have equipment that will create a new source of external lighting that will be visible at the property line?**

Section D – SIGNATURES

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THIS FORM IS A SCREENING TOOL AND THAT THE SCAQMD RESERVES THE RIGHT TO CONSIDER OTHER PERTINENT INFORMATION IN DETERMINING CEQA APPLICABILITY.

1. Signature of Responsible Official of Firm: Donald Treinen		2. Title of Responsible Official of Firm: Manager of Steam Generation	
3. Print Name of Responsible Official of Firm: Donald Treinen		4. Date Signed: 7/2/2024	
5. Phone # of Responsible Official of Firm: (213) 367-4372	6. Fax # of Responsible Official of Firm:	7. Email of Responsible Official of Firm: donald.treinen@ladwp.com	
8. Signature of Preparer, (If prepared by person other than responsible official of firm): Leja Ganapa		9. Title of Preparer: Environmental Engineering Associate II	
10. Print Name of Preparer: Tejasree Ganapa		11. Date Signed: 7/2/2024	
12. Phone # of Preparer: (213) 367-6332	13. Fax # of Preparer:	14. Email of Preparer: tejasree.ganapa@ladwp.com	

THIS CONCLUDES FORM 400-CEQA. INCLUDE THIS FORM AND ANY ATTACHMENTS WITH FORM 400-A.

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South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

XPP

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit):
LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):
800075

3. Owner's Business Name (If different from Business Name of Operator):
Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address
Playa Del Rey , CA 90293
City Zip
Abdul Rehman — Plant Manager
Contact Name — Title
(310) 524-8500 — Ext. — Fax #
E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address
Los Angeles , CA 90012
City State Zip
Andrea Villarin — Manager of Air Quality
Contact Name — Title
(213) 367-0409 — Ext. — Fax #
E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:
- (●) New Construction (Permit to Construct) 10
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits:
- ( ) Title V Application or Amendment (Refer to Title V Matrix)
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:
- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 08/26/2026
8b. Estimated End Date of Construction (mm/dd/yyyy): 12/31/2029
8c. Estimated Start Date of Operation (mm/dd/yyyy): 12/31/2029

SCR

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Application for Permit to Construct and Permit to Operate, SCR/CO Catalyst, Combined Cycle Combustion Turbine Unit 8

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process): 0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less OR a not-for-profit training center) (●) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (●) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System): 22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (●) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen

18. Title of Responsible Official:
Manager of Steam Generation

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (●) Yes

20. Print Name:
Donald Treinen

21. Date: 8/7/2024

22. Do you claim confidentiality of data? (If Yes, see instructions.) ( ) No (●) Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	654841		$ 131,089.74	169470	8/14/24 cc

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							E		

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S.C.A.Q.M.D.
PERMIT PROCESSING

South Coast Air Quality Management District

Form 400 - XPP

Express Permit Processing Request

Form 400-A, Form 400-CEQA and one or more 400-E-xx form(s) must accompany all submittals.

Mail To:
SCAQMD
P.O Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator To Appear On The Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Section B - Equipment Location Address

3. (●) **Fixed Location** ( ) **Various Location**
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address

Playa Del Rey, **CA** 90293
City State Zip

Abdul Rehman — Plant Manager
Contact Name — Title

(310) 524-8500 — Ext. — Fax #
Phone # Ext. Fax #

Abdul.Rehman@ladwp.com
E-Mail

Section C - Permit Mailing Address

4. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address

Los Angeles, CA 90012
City State Zip

Andrea Villarin — Manager of Air Quality
Contact Name — Title

(213) 367-0409 — Ext. — Fax #
Phone # Ext. Fax #

Andrea.Villarin@ladwp.com
E-Mail

Section D - Authorization/Signature

I understand that the Expedited Permit Processing fees must be submitted at the time of application submittal, and that the application may be subject to additional fees per Rule 301. I understand that requests for Express Permit Processing neither guarantees action by any specific date nor does it guarantee permit approval; that Express Permit Processing is subject to availability of qualified staff; and that once Express Permit Processing has commenced, the expedited fees will not be refunded. I hereby certify that all information contained herein and information submitted with the application are true and correct.

5. Signature of Responsible Official:	6. Title of Responsible Official:
Donald Treinen	Manager of Steam Generation
7. Print Name of Responsible Official:	**8. Date:**
Donald Treinen	8/7/2024
9. Phone #:	**10. Fax #:**
(213) 367-4372	

AQMD USE ONLY	APPLICATION TRACKING #		TYPE B C	EQUIPMENT CATEGORY CODE:	FEE SCHEDULE: $		VALIDATION
ENG. DATE A R	ENG. DATE A R		CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

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24 AUG 14 A11 :29

S.C.A.Q.M.D.
PERMIT PROCESSING

South Coast Air Quality Management District

Form 400-CEQA
California Environmental Quality Act (CEQA) Applicability

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385
www.aqmd.gov

The SCAQMD is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the SCAQMD in clarifying whether or not the project [1] has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document [CEQA Guidelines § 15060(a)]. Form 400-CEQA and the instructions for guidance on completing this form are available at http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms or http://www.aqmd.gov/home/permits/permit-application-forms. For each Form 400-A application, also complete and submit one Form 400-CEQA. If submitting multiple Form 400-A applications for the same project at the same time, only one Form 400-CEQA is necessary for the entire project. If you need assistance completing this form, contact Permit Services at (909) 396-3385.

Section A – Facility Information

1. Facility Name (Business Name of Operator to Appear on the Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. SCAQMD Facility ID: 800075

3. Project Description: Combined cycle combustion turbine, Unit 8

Section B – Review For Exemption From Further CEQA Action

Check "Yes" or "No" as applicable. If "Yes" is checked for any question in Section B, skip Section C and proceed to page 2 and complete Section D - Signatures.

	Yes	No	Is this application for:
1.	○	◉	**A request for a change of operator only (without equipment or process change modifications)?**
2.	○	◉	**A functionally identical permit unit replacement with no increase in equipment unit rating or emissions?**
3.	○	◉	**A change of daily VOC permit limit to a monthly VOC permit limit?**
4.	○	◉	**Equipment damaged as a result of a disaster during state of emergency?**
5.	○	◉	**A Title V** (e.g., SCAQMD Regulation XXX) **permit renewal without equipment or process change modifications?**
6.	○	◉	**A Title V administrative permit revision?**
7.	○	◉	**The conversion of an existing permit into an initial Title V permit?**

Section C – Review of Impacts Which May Trigger Further CEQA Review

Check "Yes" or "No" as applicable. To avoid delays in processing your application(s), explain all "Yes" responses on a separate sheet and attach it to this form.

	Yes	No	
1.	○	◉	**Is this project specifically evaluated in a previously certified or adopted CEQA document?** If "Yes" is checked, attach a copy of the signed Notice of Determination to this form.
2.	○	◉	**Is this project specifically exempted from CEQA by another entity (e.g., city or agency)?** If "Yes" is checked, attach a copy of the signed Notice of Exemption or other documentation from the entity to this form.
3.	○	◉	**Is this project part of a larger project?** If "Yes" is checked, attach a separate sheet to briefly describe the larger project.
4.	○	◉	**Will the project increase the QUANTITY of hazardous materials stored aboveground onsite or transported by mobile vehicle to or from the site by greater than or equal to the amounts associated with each compound listed on Form 400-CEQA, Table 1 - Regulated Substances List and Threshold Quantities for Accidental Release Prevention** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each hazardous material and corresponding quantity to be transported, stored, or used.
5.	○	◉	**Will the project emit any air toxic listed on Form 400-CEQA, Table 2 - Other Air Toxics and Their Screening Levels** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms] [2]**?** If "Yes" is checked, attach a separate sheet to identify each air toxic and corresponding quantity to be emitted.
6.	◉	○	**Will the project require any demolition, excavation, and/or grading construction activities that encompass an area exceeding 20,000 square feet?**

[1] A "project" means the whole of an action which has a potential for resulting in physical change to the environment, including construction activities, clearing or grading of land, improvements to existing structures, and activities or equipment involving the issuance of a permit. For example, a project might include installation of a new, or modification of an existing internal combustion engine, dry cleaning facility, boiler, gas turbine, spray coating booth, solvent cleaning tank, etc

[2] Form 400-CEQA, Table 2 – Other Air Toxics and Their Screening Levels, contains a list of air toxics that either do not have a cancer potency (CP) or reference exposure level (REL) approved by the Office of Environmental Health Hazards Assessment (OEHHA) or have a combination of OEHHA-approved and non-approved CPs or RELs.

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Section C – Review of Impacts Which May Trigger Further CEQA (concluded)

	Yes	No	
7.	⊙	○	**Will the project utilize a boiler, engine, or other combustion equipment that uses fuel (e.g., gasoline, diesel, natural gas, liquefied petroleum gas (LPG), or landfill gas)?** If "Yes" is checked, then the applicant will need to calculate the amount of GHGs from fuel use via on the Greenhouse Gas (GHG) online estimator [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms], and attaching the printout or by conducting hand calculations and providing the documentation. Refer to the Instructions for Form 400-CEQA for guidance.
8.	○	⊙	**Will the project utilize other types of equipment not addressed in Question 7 that require the use of, or will generate, any chemicals listed on Form 400-CEQA, Table 3 - Greenhouse Gases** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each equipment unit, the chemical name(s), and the quantity of each chemical identified.
9.	○	⊙	**Will the project include the open outdoor storage of dry bulk solid materials that could generate dust?** If "Yes" is checked, include a plot plan with the application package.
10.	○	⊙	**Will the project result in or make worse noticeable off-site odors from activities that may not be subject to SCAQMD permit requirements?** For example, landfills, materials recovery/recycling facilities (MRF), and compost materials or other types of greenwaste (e.g., lawn clippings, tree trimmings, etc.) have the potential to generate odor complaints subject to SCAQMD Rule 402 – Nuisance.
11.	○	⊙	**Will the project cause an increase of emissions from marine vessels, trains and/or airplanes?**
12.	○	⊙	**Will the project increase demand for potable water at the facility by more than 262,820 gallons per day?** The following examples identify some, but not all, types of projects that may result in a "Yes" answer to this question: 1) a project that generates steam; 2) a project that uses water as part of operating air pollution control equipment; 3) a project that requires water as part of the production process; 4) a project that requires a new, or the expansion of an existing, sewage treatment facility, new water lines, sewage lines, sewage hook-ups etc.; 5) a project where the water demand exceeds the capacity of the local water purveyor to supply sufficient water for the project; 6) a project that requires new or the expansion of existing, water supply and conveyance facilities; and, 7) a project that requires water to hydrotest pipelines, storage tanks etc. for structural integrity.
13.	⊙	○	**Will the project create an increase in the mass inflow of effluents to a public wastewater treatment facility that would require a new, or revision to an existing, National Pollutant Discharge Elimination System (NPDES) or other related permit at the facility?**
14.	○	⊙	**Will the project result in the need for more than 350 new employees?**
15.	○	⊙	**Will the project result in an increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round-trips per day?**
16.	○	⊙	**Will the project result in an increase in customer traffic by more than 700 visits per day?**
17.	○	⊙	**Will the project result in temporary or permanent noise or vibration in excess of what is allowed by the applicable local noise ordinance?**
18.	○	⊙	**Will the project create a permanent need for new or additional solid waste disposal?** Check "No" if the projected potential amount of solid waste to be generated by the project is less than five tons per day.
19.	○	⊙	**Will the project create a permanent need for new or additional hazardous waste disposal?** Check "No" if the projected potential amount of hazardous wastes to be generated by the project is less than 42 cubic yards per day (or equivalent in pounds).
20.	○	⊙	**Will the project include equipment that after installation or modification will change the visual character of the site and its surroundings or block views?**
21.	○	⊙	**Will the project have equipment that will create a new source of external lighting that will be visible at the property line?**

Section D – SIGNATURES

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THIS FORM IS A SCREENING TOOL AND THAT THE SCAQMD RESERVES THE RIGHT TO CONSIDER OTHER PERTINENT INFORMATION IN DETERMINING CEQA APPLICABILITY.

1. Signature of Responsible Official of Firm: Donald Treinen		2. Title of Responsible Official of Firm: Manager of Steam Generation
3. Print Name of Responsible Official of Firm: Donald Treinen		4. Date Signed: 8/7/2024
5. Phone # of Responsible Official of Firm: (213) 367-4372	6. Fax # of Responsible Official of Firm:	7. Email of Responsible Official of Firm: donald.treinen@ladwp.com
8. Signature of Preparer, (If prepared by person other than responsible official of firm):		9. Title of Preparer: Environmental Engineer
10. Print Name of Preparer: Dipak Patel		11. Date Signed: 8/8/24
12. Phone # of Preparer: (213) 367-3764	13. Fax # of Preparer:	14. Email of Preparer: dipak.patel@ladwp.com

THIS CONCLUDES FORM 400-CEQA. INCLUDE THIS FORM AND ANY ATTACHMENTS WITH FORM 400-A.

© South Coast Air Quality Management District, Form 400-CEQA (2017.12)

400-CEQA AQMD Greenhouse Gas Estimator

Facility Name	Scattergood Generating Station
Facility ID	800075
Project Description	Installation of combined cycle unit

GHG Calculation: CO_2e MT/yr = [lb/yr CO_2 + (25* lb/yr CH_4) + (298 *lb/yr N_2O)] * [1 MT/2,205 lb]

Equipment Description	Equipment Type	Fuel Type	Equipment Rating (MMBtu/hr)	Operating Schedule			Greenhouse Gas Emissions			
				Hours/day	Days/wk	Weeks/yr	CO_2 (lbs/yr)	CH_4 (lbs/yr)	N_2O (lbs/yr)	CO_2e (MT/yr)
Combined cycle unit, able	Engine-Prime Power	Natural Gas	2207	24	7	52	2.25E+09	4.25E+04	4.25E+03	1.02E+06
Please note that a more detailed set of GHG calculations is provided as part of the permit applications.										

Equipment Description	Equipment Type	Fuel Type	Equipment Rating (MMBtu/hr)	Operating Schedule			Greenhouse Gas Emissions			
				Hours/day	Days/wk	Weeks/yr	CO_2 (lbs/yr)	CH_4 (lbs/yr)	N_2O (lbs/yr)	CO_2 eq (MT/yr)
						Total	2.25E+09	4.25E+04	4.25E+03	1.02E+06

Emission Factor
(same emission factor for all combustion equipment types)

	kg/mmBtu			lb/mmBtu			Note
Fuel Type	**CO_2**	**CH_4**	**N_2O**	**CO_2**	**CH_4**	**N_2O**	
Diesel	73.96	0.003	0.0006	163.01	6.61E-03	1.32E-03	From Distillate Fuel Oil No.2
Gasoline	70.22	0.003	0.0006	154.76	6.61E-03	1.32E-03	From Motor Gasoline
Landfill Gas	52.07	0.0032	0.00063	114.76	7.05E-03	1.39E-03	
LPG	61.71	0.003	0.0006	136.01	6.61E-03	1.32E-03	
Natural Gas	53.06	0.001	0.0001	116.94	2.20E-03	2.20E-04	

Data Source: https://www.ecfr.gov/cgi-bin/text-idx?SID=1d653629ba1ed0a9fee443920aa261e0&mc=true&node=ap40.23.98_138.1&rgn=div9
https://www.ecfr.gov/cgi-bin/text-idx?SID=5d2c6b432404dc9cfd5fb33ac1becb5b&mc=true&node=ap40.23.98_138.2&rgn=div9

40 CFR Subpart 98: Table C-1 to Subpart C of Part 98—Default CO2 Emission Factors and High Heat Values for Various Types of Fuel [78 FR 71950, Nov. 29, 2013]
Table C-2 to Subpart C of Part 98—Default CH4 and N2O Emission Factors for Various Types of Fuel [78 FR 71952, Nov. 29, 2013]

Equipment Type	Fuel Type
Boiler-Commercial	Diesel
Boiler-Industrial	Gasoline
Engine-Agricultural	Landfill Gas
Engine-Emergency	LPG
Engine-Prime Power	Natural Gas
Other Combustion Equipment	

South Coast Air Quality Management District

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator To Appears On The Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(●) Fixed Location ( ) Various Locations

Section B - Location Data

Plot Plan

Please attach a site map for the project with distances and scales. Identify and locate the proposed equipment on the map. A copy of the appropriate Thomas Brothers page, a web-based map, or a sketch that shows the major streets and location of the equipment is acceptable.

Location of Schools Nearby

Is the facility located within a 1/4 mile radius (1,320 feet) of the outer boundary of a school? ( ) Yes (●) No

If yes, please provide name(s) of school(s) below:

School Name: _____ **School Name:** _____

School Address: _____ **School Address:** _____

Distance from stack or equipment vent to the outer boundary of the school: _____ feet

Distance from stack or equipment vent to the outer boundary of the school: _____ feet

CA Health & Safety Code 42301.9: "School" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.

Population Density

(●) Urban ( ) Rural (<50% of land within 3 km radius accounted for by urban land use categories, i.e., multi-family dwelling or industrial.)

Zoning Classification

(●) Mixed Use Residential Commercial Zone (M-U) ( ) Service and Professional Zone (C-S) ( ) Medium Commercial (C-3)

( ) Heavy Commercial (C-4) ( ) Commercial Manufacturing (C-M)

Section C - Emission Release Parameters - Stacks, Vents

Stack Data

Stack Height: 160.00 feet (above ground level) **What is the height of the closest building nearest the stack?** 111 feet

Stack Inside Diameter: _____ inches **Stack Flow:** 1,108,613 acfm **Stack Temperature:** 175 °F

Rain Cap Present: ( ) Yes (●) No **Stack Orientation:** (●) Vertical ( ) Horizontal

If the stack height is less than 2.5 times the closest building height (H), please provide information on any building within 5xH distance from the stack (attach additional sheet if necessary):

Building #/Name: See attached sheet. **Building #/Name:** _____

Building Height: _____ feet (above ground level) **Building Height:** _____ feet (above ground level)

Building Width: _____ feet **Building Width:** _____ feet

Building Length: _____ feet **Building Length:** _____ feet

Receptor Distance From Equipment Stack or Roof Vents/Openings

Distance to nearest residence or sensitive receptor*: 1,270 feet

Distance to nearest business: 1,040 feet

Building Information

Are the emissions released from vents and/or openings from a building? ( ) Yes (●) No

If yes, please provide:

Building #/Name: _____ **Building Width:** _____ feet

Building Height: _____ feet (above ground level) **Building Length:** _____ feet

*AQMD Rule 1470 defines SENSITIVE RECEPTOR as meaning any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

©South Coast Air Quality Management District, Form 400-PS (2015.04)

South Coast Air Quality Management District

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Section D - Authorization/Signature			
I hereby certify that all information contained herein and information submitted with this application is true and correct.			
Signature of Preparer: dipak patel	Title of Preparer: Environ. Eng Assoc.	Preparer's Phone #: (213) 367-3764 Preparer's Email: dipak.patel@ladwp.com	
Contact Person: Andrea Villarin Contact's Email: Manager of Air Quality	Contact's Phone#: (213) 367-0409 Contact's Fax#:	Date Signed: 08/09/2024	

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☒

©South Coast Air Quality Management District, Form 400-PS (2015.04)

South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(●) Fixed Location ( ) Various Locations

Section B - Equipment Description

Selective Catalytic Reduction (SCR)

SCR Catalyst

Manufacturer: Cormetech or equal — Catalyst Active Material: _____

Model Number: TBD — Type: Ti-V-W

Size of Each Layer or Module: L: _____ ft. _____ in. W: _____ ft. _____ in. H: _____ ft. _____ in.

No. of Layers or Modules: _____ Total Volume: 2300 cu. ft. Total Weight: _____ lbs.

Reducing Agent

( ) Urea ( ) Anhydrous Ammonia (●) Aqueous Ammonia 29.00 % — Injection Rate: 433.4 lb/hr

Reducing Agent Storage*

Diameter: _____ ft. _____ in. Height: _____ ft. _____ in. Capacity: 90000 gal

Pressure Setting: _____ psia * A separate permit may be needed for the storage equipment.

Space Velocity

Gas Flow Rate/Catalyst Volume: 48400 per hour

Area Velocity

Gas Flow Rate/Wetted Catalyst Surface Area: _____ ft/hr

Manufacturer's Guarantee

NOx: 2 ppm $\%O_2$: 15.00 NOx: _____ gm/bhp-hr Ammonia Slip: 5 ppm @ 15.00 $\%O_2$

Catalyst Life

3 years (expected)

Cost

Capital Cost: _____ Installation Cost: _____ Catalyst Replacement Cost: _____

Oxidation Catalyst

Oxidation Catalyst

Manufacturer: BASF or equal — Catalyst Active Material: _____

Model Number: TBD — Type: Platinum, corrugated SS substrate

Size of Each Layer or Module: L: _____ ft. _____ in. W: _____ ft. _____ in. H: _____ ft. _____ in.

No. of Layers or Modules: _____ Total Volume: 2100 cu. ft. Total Weight: _____ lbs.

Space Velocity

Gas Flow Rate/Catalyst Volume: 92700 per hour

Manufacturer's Guarantee

VOC: 2 ppm VOC: _____ gm/bhp-hr $\%O_2$: 15.00

CO: 1.5 ppm CO: _____ gm/bhp-hr $\%O_2$: 15

Catalyst Life

3 years (expected)

Cost

Capital Cost: _____ Installation Cost: _____ Catalyst Replacement Cost: _____

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South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section B - Equipment Description (cont.)

Ammonia Catalyst

Ammonia Catalyst

Manufacturer: _____ Catalyst Active Material: _____

Model Number: _____ Type: _____

Size of Each Layer or Module: L: _____ ft. _____ in. W: _____ ft. _____ in. H: _____ ft. _____ in.

No. of Layers or Modules: _____ Total Volume: _____ cu. ft. Total Weight: _____ lbs.

Space Velocity

Gas Flow Rate/Catalyst Volume: _____ per hour

Manufacturer's Guarantee

NH_3: _____ ppm $\%O_2$: _____

Catalyst Life

_____ years (expected)

Cost

Capital Cost: _____ Installation Cost: _____ Catalyst Replacement Cost: _____

Section C - Operation Information

Operating Temperature

Minimum Inlet Temperature: _____ °F (from cold start) Maximum Temperature: _____ °F

Warm-up Time: _____ hr. _____ min. (maximum)

Operating Schedule

Normal:	24	hours/day	7	days/week	52	weeks/yr
Maximum:	24	hours/day	7	days/week	52	weeks/yr

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info

Signature: dipak patel Date: 08/09/2024

Name: Dipak Patel

Title: Environ. Eng Assoc. Company Name: LADWP

Phone #: (213) 367-3764 Fax #:

Email: dipak.patel@ladwp.com

Contact Info

Name: Andrea Villarin

Title: Manager of Air Quality Company Name: LADWP

Phone #: (213) 367-0409 Fax #:

Email: Andrea.Villarin@ladwp.com

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☒

© South Coast Air Quality Management District, Form 400-E-5 (2014.07)

South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

XPP

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit):
LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):
800075

3. Owner's Business Name (If different from Business Name of Operator):
Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address

Playa Del Rey , CA 90293
City Zip

Abdul Rehman — Plant Manager
Contact Name — Title

(310) 524-8500 — Ext. — Fax #
Phone #

E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address

Los Angeles , CA 90012
City State Zip

Andrea Villarin — Manager of Air Quality
Contact Name — Title

(213) 367-0409 — Ext. — Fax #
Phone #

E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:
- (●) New Construction (Permit to Construct) ID
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits:
- ( ) Title V Application or Amendment (Refer to Title V Matrix)
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:
- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 08/26/2026

8b. Estimated End Date of Construction (mm/dd/yyyy): 12/31/2029

8c. Estimated Start Date of Operation (mm/dd/yyyy): 12/31/2029

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Application for Permit to Construct and Permit to Operate, Combined Cycle Combustion Turbine Unit 8

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process): 0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less OR a not-for-profit training center) (●) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (●) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System): 22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (●) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen

18. Title of Responsible Official: Manager of Steam Generation

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (●) Yes

20. Print Name: Donald Treinen

21. Date: 8/7/2024

22. Do you claim confidentiality of data? (If Yes, see instructions.) ( ) No (●) Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	654842		$ 131,089.74	169470	8/14/24 E

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM E	ENGINEER	REASON/ACTION TAKEN

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700562680

South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site):

12700 Vista Del Mar, Playa Del Rey, CA 90293 ◉ Fixed Location ○ Various Locations

Section B - Equipment Description

Turbine

Manufacturer: Siemens | Model: SCC6-5000F | Serial No.:

Size (based on Higher Heating Value - HHV):

Manufacturer Maximum Input Rating: _____ MMBTU/hr _____ kWh

Manufacturer Maximum Output Rating: 2,207.00 MMBTU/hr _____ kWh

Function (Check all that apply)

☒ Electrical Generation ☐ Driving Pump/Compressor ☐ Emergency Peaking Unit
☐ Steam Generation ☐ Exhaust Gas Recovery ☐ Other (specify): _____

Cycle Type

○ Simply Cycle ○ Regenerative Cycle
◉ Combined Cycle ○ Other (specify): _____

Combustion Type

○ Tubular ◉ Can-Annular ○ Annular

Fuel (Turbine)

☒ Natural Gas ☐ LPG ☐ Digester Gas*
☐ Landfill Gas* ☐ Propane ☐ Refinery Gas* ☒ Other*: hydrogen

* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).

Heat Recovery Steam Generator (HRSG)

Steam Turbine Capacity: 118.6 MW

Low Pressure Steam Output Capacity: _____ lb/hr @ _____ °F

High Pressure Steam Output Capacity: _____ lb/hr @ _____ °F

Superheated Steam Output Capacity: _____ lb/hr @ _____ °F

Duct Burner

Manufacturer: | Model:

Number of burners: _____ Rating of each burner (HHV): _____

Type: ○ Low NOx (please attach manufacturer's specifications)

○ Other: _____
Show all heat transfer surface locations with the HRSG and temperature profile

Fuel (Duct Burner)

○ Natural Gas ○ LPG ○ Digester Gas*
○ Landfill Gas* ○ Propane ○ Refinery Gas* ○ Other*: _____

* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).

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South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section B - Equipment Description (Cont.)

Air Pollution Control

- (●) Selective Catalytic Reduction (SCR)* ( ) Selective Non-Catalytic Reduction (SNCR)*
- ( ) Oxidation Catalyst* ( ) Other (specify)*: _____
- ( ) Steam/Water Injection: Injection Rate: _____ lbs. water/lbs. fuel, or _____ mole water/mole fuel

* Separate application is required.

Capital Cost: _____ Installation Cost: _____ Annual Operating Cost: _____

Oxidation Catalyst Data (If Applicable)

Manufacturer: BASF or equal Model: TBD

Catalyst Dimensions: Length: _____ ft. _____ in. Width: _____ ft. _____ in. Height: _____ ft. _____ in.

Catalyst Cell Density: _____ cells/sq.in. Pressure Drop Across Catalyst: _____

Manufacturer's Guarantee: CO Control Efficiency: _____ % Catalyst Life: 3 yrs

VOC Control Efficiency: _____ % Operating Temp. Range: _____ °F

Space Velocity (gas flow rate/catalyst volume): 48400 Area Velocity (gas flow/wetted catalyst surface area): _____

VOC Concentration into Catalyst: _____ PPMVD@ 15%O_2 CO Concentration inot Catalyst: _____ PPMVD@ 15%O_2

Section C - Operation Information

On-line Emissions Data

Pollutants	Maximum Emissions Before Control *		Maximum Emissions After Control	
	PPM@15% O_2, dry	lb/hour	PPM@15% O_2, dry	lb/hour
ROG			2	5.75
NOx			2	16.52
CO			1.5	7.54
PM_{10}				9.9
SOx				1.62
NH_3			5	15.26

* Based on temperature, fuel consumption, and MW output.

Reference (attach data):

- [x] Manufacturer Emission Data
- [ ] EPA Emission Factors
- [ ] AQMD Emission Factors
- [ ] Source Test

Stack or Vent Data

Stack Height: 160 ft. _____ in. Stack Diameter: 22 ft. _____ in.

Exhaust Temperature: _____ °F Exhaust Pressure: _____ inches water column

Exhaust Flow Rate: 1086131 CFM Oxygen Level: 11.62 %

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South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section C - Operation Information (cont.)

Startup Data

No. of Startups per day: 3 No. of Startups per year: 792 Duration of each startup: 1 hrs.

Shutdown Data

No. of Shutdowns per day: 3 No. of Shutdowns per year: 792 Duration of each Shutdown: 0.383 hrs.

Startup and Shutdown Emissions Data

Pollutants	Startup Emissions		Shutdown Emissions	
	PPM@15% O_2, dry	lb/hour	PPM@15% O_2, dry	lb/hour
ROG				
NOx				
CO				
PM_{10}				
SOx				
NH_3				

Monitoring and Reporting

Continuous Emission Monitoring System (CEMS): CEMS Make:

CEMS Model:

Will the CEMS be used to measure both on-line and startup/shutdown emissions? (•) Yes ( ) No

The following parameters will be continuously monitored:

☒ NOx ☒ CO ☒ O_2

☒ Fuel Flow Rate ☒ Ammonia Injection Rate ☐ Other (specify):

☐ Ammonia Stack Concentration: Ammonia CEMS Make:

Ammonia CEMS Model:

Operating Schedule

Normal: 24 hours/day 7 days/week 52 weeks/yr

Maximum: 24 hours/day 7 days/week 52 weeks/yr

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info

Signature: dipak patel Date: 08/09/2024

Title: Environ. Eng Assoc. Company Name: LADWP

Name: Dipak Patel

Phone #: (213) 367-3764 Fax #:

Email: dipak.patel@ladwp.com

Contact Info

Name: Andrea Villarin

Title: Manager of Air Quality Company Name: LADWP

Phone #: (213) 367-0409 Fax #:

Email: andrea.villarin@ladwp.com

THIS IS A PUBLIC DOCUMENT

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Check here if you claim that this form or its attachments contain confidential trade secret information. ☒

© South Coast Air Quality Management District, Form 400-E-12 (2014.07)

South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

XPP

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit):
LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD):
800075

3. Owner's Business Name (If different from Business Name of Operator):
Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address

Playa Del Rey , CA 90293
City Zip

Abdul Rehman — Plant Manager
Contact Name — Title

(310) 524-8500 — Ext. — Fax #
Phone #

E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address

Los Angeles , CA 90012
City State Zip

Andrea Villarin — Manager of Air Quality
Contact Name — Title

(213) 367-0409 — Ext. — Fax #
Phone #

E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:

- ( ) New Construction (Permit to Construct)
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits:

- (●) Title V Application or Amendment (Refer to Title V Matrix) 76
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:

- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy):	8b. Estimated End Date of Construction (mm/dd/yyyy):	8c. Estimated Start Date of Operation (mm/dd/yyyy):
08/26/2026	12/31/2029	12/31/2029

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Application for Permit to Construct and Permit to Operate – Title V Significant Permit Revision

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process): 0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less OR a not-for-profit training center) (●) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (●) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location?
Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System): 22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (●) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen

18. Title of Responsible Official:
Manager of Steam Generation

19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (●) Yes

20. Print Name:
Donald Treinen

21. Date: 8/7/2024

22. Do you claim confidentiality of data? (If Yes, see instructions.) ( ) No (●) Yes

23. Check List: ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	654843		$ 131,089.74	169470	8/14/24

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							E		

RHF A1N 654841

© South Coast Air Quality Management District, Form 400-A (2014.07)

700562680

(3) XPP

South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

3. Owner's Business Name (If different from Business Name of Operator): Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. Equipment Location Is: (•) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address
Playa Del Rey , CA 90293
City Zip
Abdul Rehman — Plant Manager
Contact Name — Title
(310) 524-8500 — Ext. — Fax #
E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
[ ] Check here if same as equipment location address

111 North Hope St Room 1050
Address
Los Angeles , CA 90012
City State Zip
Andrea Villarin — Manager of Air Quality
Contact Name — Title
(213) 367-0409 — Ext. — Fax #
E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. The Facility Is: ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (•) In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:

(•) New Construction (Permit to Construct) 10
( ) Equipment On-Site But Not Constructed or Operational
( ) Equipment Operating Without A Permit *
( ) Compliance Plan
( ) Registration/Certification
( ) Streamlined Standard Permit

7b. Facility Permits:

( ) Title V Application or Amendment (Refer to Title V Matrix)
( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:

( ) Administrative Change
( ) Alteration/Modification
( ) Alteration/Modification without Prior Approval *
( ) Change of Condition
( ) Change of Condition without Prior Approval *
( ) Change of Location
( ) Change of Location without Prior Approval *
( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number:

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. Estimated Start Date of Construction (mm/dd/yyyy): 08/26/2026
8b. Estimated End Date of Construction (mm/dd/yyyy): 12/31/2029
8c. Estimated Start Date of Operation (mm/dd/yyyy): 12/31/2029

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):
Application for Permit to Construct and Permit to Operate, Combined Cycle Combustion Turbine Unit 8

10. For Identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process) 0

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are $500,000 or less OR a not-for-profit training center) (•) No ( ) Yes

12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? (•) No ( ) Yes
If Yes, provide NOV/NC#:

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location? Utility

14. What is your business primary NAICS Code? (North American Industrial Classification System) 22111

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ( ) No (•) Yes

16. Are there any schools (K-12) within 1000 feet of the facility property line? (•) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: Donald Treinen
18. Title of Responsible Official: Manager of Steam Generation
19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) ( ) No (•) Yes
20. Print Name: Donald Treinen
21. Date: 10/2/2024
22. Do you claim confidentiality of data? (If Yes, see instructions.) ( ) No (•) Yes

23. Check List: [X] Authorized Signature/Date [X] Form 400-CEQA [X] Supplemental Form(s) (ie., Form 400-E-xx) [X] Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	655871 sc	700564199	$ 67,734.76	170183	10/16/2024 TC

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							4		

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24 OCT 16 A8:19

S.C.A.Q.M.D.
PERMIT PROCESSING

South Coast Air Quality Management District

Form 400 - XPP

Express Permit Processing Request

Form 400-A, Form 400-CEQA and one or more 400-E-xx form(s) must accompany all submittals.

Mail To:
SCAQMD
P.O Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. **Facility Name** (Business Name of Operator To Appear On The Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. **Valid AQMD Facility ID** (Available On Permit Or Invoice Issued By AQMD): 800075

Section B - Equipment Location Address

3. (●) **Fixed Location** ( ) **Various Location**
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address

Playa Del Rey, CA 90293
City State Zip

Abdul Rehman — Plant Manager
Contact Name — Title

(310) 524-8500 — — —
Phone # Ext. Fax #

Abdul.Rehman@ladwp.com
E-Mail

Section C - Permit Mailing Address

4. **Permit and Correspondence Information:**
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address

Los Angeles, CA 90012
City State Zip

Andrea Villarin — Manager of Air Quality
Contact Name — Title

(213) 367-0409 — — —
Phone # Ext. Fax #

Andrea.Villarin@ladwp.com
E-Mail

Section D - Authorization/Signature

I understand that the Expedited Permit Processing fees must be submitted at the time of application submittal, and that the application may be subject to additional fees per Rule 301. I understand that requests for Express Permit Processing neither guarantees action by any specific date nor does it guarantee permit approval; that Express Permit Processing is subject to availability of qualified staff; and that once Express Permit Processing has commenced, the expedited fees will not be refunded. I hereby certify that all information contained herein and information submitted with the application are true and correct.

5. Signature of Responsible Official:	6. Title of Responsible Official:
Donald Treinen	Manager of Steam Generation
7. Print Name of Responsible Official:	**8. Date:**
Donald Treinen	10/2/2024
9. Phone #:	**10. Fax #:**
(213) 367-4372	

AQMD USE ONLY	APPLICATION TRACKING #		TYPE B C	EQUIPMENT CATEGORY CODE:	FEE SCHEDULE: $		VALIDATION
ENG. DATE A R	ENG. DATE A R		CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

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24 OCT 16 A8:19

S.C.A.Q.M.D.
PERMIT PROCESSING

South Coast Air Quality Management District

Form 400-CEQA
California Environmental Quality Act (CEQA) Applicability

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944

Tel: (909) 396-3385
www.aqmd.gov

The SCAQMD is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the SCAQMD in clarifying whether or not the project [1] has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document [CEQA Guidelines § 15060(a)]. Form 400-CEQA and the instructions for guidance on completing this form are available at http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms or http://www.aqmd.gov/home/permits/permit-application-forms. For each Form 400-A application, also complete and submit one Form 400-CEQA. If submitting multiple Form 400-A applications for the same project at the same time, only one Form 400-CEQA is necessary for the entire project. If you need assistance completing this form, contact Permit Services at (909) 396-3385.

Section A – Facility Information

1. Facility Name (Business Name of Operator to Appear on the Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. SCAQMD Facility ID: 800075

3. Project Description: Combined cycle combustion turbine, Unit 8

Section B – Review For Exemption From Further CEQA Action

Check "Yes" or "No" as applicable. If "Yes" is checked for any question in Section B, skip Section C and proceed to page 2 and complete Section D - Signatures.

	Yes	No	Is this application for:
1.	○	⊙	**A request for a change of operator only (without equipment or process change modifications)?**
2.	○	⊙	**A functionally identical permit unit replacement with no increase in equipment unit rating or emissions?**
3.	○	⊙	**A change of daily VOC permit limit to a monthly VOC permit limit?**
4.	○	⊙	**Equipment damaged as a result of a disaster during state of emergency?**
5.	○	⊙	**A Title V** (e.g., SCAQMD Regulation XXX) **permit renewal without equipment or process change modifications?**
6.	○	⊙	**A Title V administrative permit revision?**
7.	○	⊙	**The conversion of an existing permit into an initial Title V permit?**

Section C – Review of Impacts Which May Trigger Further CEQA Review

Check "Yes" or "No" as applicable. To avoid delays in processing your application(s), explain all "Yes" responses on a separate sheet and attach it to this form.

	Yes	No	
1.	○	⊙	**Is this project specifically evaluated in a previously certified or adopted CEQA document?** If "Yes" is checked, attach a copy of the signed Notice of Determination to this form.
2.	○	⊙	**Is this project specifically exempted from CEQA by another entity (e.g., city or agency)?** If "Yes" is checked, attach a copy of the signed Notice of Exemption or other documentation from the entity to this form.
3.	○	⊙	**Is this project part of a larger project?** If "Yes" is checked, attach a separate sheet to briefly describe the larger project.
4.	○	⊙	**Will the project increase the QUANTITY of hazardous materials stored aboveground onsite or transported by mobile vehicle to or from the site by greater than or equal to the amounts associated with each compound listed on Form 400-CEQA, Table 1 - Regulated Substances List and Threshold Quantities for Accidental Release Prevention** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each hazardous material and corresponding quantity to be transported, stored, or used.
5.	○	⊙	**Will the project emit any air toxic listed on Form 400-CEQA, Table 2 - Other Air Toxics and Their Screening Levels** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms] [2]**?** If "Yes" is checked, attach a separate sheet to identify each air toxic and corresponding quantity to be emitted.
6.	⊙	○	**Will the project require any demolition, excavation, and/or grading construction activities that encompass an area exceeding 20,000 square feet?**

[1] A "project" means the whole of an action which has a potential for resulting in physical change to the environment, including construction activities, clearing or grading of land, improvements to existing structures, and activities or equipment involving the issuance of a permit. For example, a project might include installation of a new, or modification of an existing internal combustion engine, dry cleaning facility, boiler, gas turbine, spray coating booth, solvent cleaning tank, etc

[2] Form 400-CEQA, Table 2 – Other Air Toxics and Their Screening Levels, contains a list of air toxics that either do not have a cancer potency (CP) or reference exposure level (REL) approved by the Office of Environmental Health Hazards Assessment (OEHHA) or have a combination of OEHHA-approved and non-approved CPs or RELs.

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Section C – Review of Impacts Which May Trigger Further CEQA (concluded)

	Yes	No	
7.	⊙	○	**Will the project utilize a boiler, engine, or other combustion equipment that uses fuel (e.g., gasoline, diesel, natural gas, liquefied petroleum gas (LPG), or landfill gas)?** If "Yes" is checked, then the applicant will need to calculate the amount of GHGs from fuel use via on the Greenhouse Gas (GHG) online estimator [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms], and attaching the printout or by conducting hand calculations and providing the documentation. Refer to the Instructions for Form 400-CEQA for guidance.
8.	○	⊙	**Will the project utilize other types of equipment not addressed in Question 7 that require the use of, or will generate, any chemicals listed on Form 400-CEQA, Table 3 - Greenhouse Gases** [http://www.aqmd.gov/home/regulations/ceqa/ceqa-permit-forms]**?** If "Yes" is checked, attach a separate sheet to identify each equipment unit, the chemical name(s), and the quantity of each chemical identified.
9.	○	⊙	**Will the project include the open outdoor storage of dry bulk solid materials that could generate dust?** If "Yes" is checked, include a plot plan with the application package.
10.	○	⊙	**Will the project result in or make worse noticeable off-site odors from activities that may not be subject to SCAQMD permit requirements?** For example, landfills, materials recovery/recycling facilities (MRF), and compost materials or other types of greenwaste (e.g., lawn clippings, tree trimmings, etc.) have the potential to generate odor complaints subject to SCAQMD Rule 402 – Nuisance.
11.	○	⊙	**Will the project cause an increase of emissions from marine vessels, trains and/or airplanes?**
12.	○	⊙	**Will the project increase demand for potable water at the facility by more than 262,820 gallons per day?** The following examples identify some, but not all, types of projects that may result in a "Yes" answer to this question: 1) a project that generates steam; 2) a project that uses water as part of operating air pollution control equipment; 3) a project that requires water as part of the production process; 4) a project that requires a new, or the expansion of an existing, sewage treatment facility, new water lines, sewage lines, sewage hook-ups etc.; 5) a project where the water demand exceeds the capacity of the local water purveyor to supply sufficient water for the project; 6) a project that requires new or the expansion of existing, water supply and conveyance facilities; and, 7) a project that requires water to hydrotest pipelines, storage tanks etc. for structural integrity.
13.	⊙	○	**Will the project create an increase in the mass inflow of effluents to a public wastewater treatment facility that would require a new, or revision to an existing, National Pollutant Discharge Elimination System (NPDES) or other related permit at the facility?**
14.	○	⊙	**Will the project result in the need for more than 350 new employees?**
15.	○	⊙	**Will the project result in an increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round-trips per day?**
16.	○	⊙	**Will the project result in an increase in customer traffic by more than 700 visits per day?**
17.	○	⊙	**Will the project result in temporary or permanent noise or vibration in excess of what is allowed by the applicable local noise ordinance?**
18.	○	⊙	**Will the project create a permanent need for new or additional solid waste disposal?** Check "No" if the projected potential amount of solid waste to be generated by the project is less than five tons per day.
19.	○	⊙	**Will the project create a permanent need for new or additional hazardous waste disposal?** Check "No" if the projected potential amount of hazardous wastes to be generated by the project is less than 42 cubic yards per day (or equivalent in pounds).
20.	○	⊙	**Will the project include equipment that after installation or modification will change the visual character of the site and its surroundings or block views?**
21.	○	⊙	**Will the project have equipment that will create a new source of external lighting that will be visible at the property line?**

Section D – SIGNATURES

I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THIS FORM IS A SCREENING TOOL AND THAT THE SCAQMD RESERVES THE RIGHT TO CONSIDER OTHER PERTINENT INFORMATION IN DETERMINING CEQA APPLICABILITY.

1. Signature of Responsible Official of Firm: Donald Treinen		2. Title of Responsible Official of Firm: Manager of Steam Generation	
3. Print Name of Responsible Official of Firm: Donald Treinen		4. Date Signed: 10/2/2024	
5. Phone # of Responsible Official of Firm: (213) 367-4372	6. Fax # of Responsible Official of Firm:	7. Email of Responsible Official of Firm: donald.treinen@ladwp.com	
8. Signature of Preparer, (If prepared by person other than responsible official of firm): Tejasree Ganapa		9. Title of Preparer: Environmental Engineering Associate	
10. Print Name of Preparer: Tejasree Ganapa		11. Date Signed: 10/1/2024	
12. Phone # of Preparer: (213) 367-6332	13. Fax # of Preparer:	14. Email of Preparer: tejasree.ganapa@ladwp.com	

THIS CONCLUDES FORM 400-CEQA. INCLUDE THIS FORM AND ANY ATTACHMENTS WITH FORM 400-A.

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400-CEQA AQMD Greenhouse Gas Estimator

Facility Name	Scattergood Generating Station
Facility ID	800075
Project Description	Installation of combined cycle unit

GHG Calculation: CO_2e MT/yr = [lb/yr CO_2 + (25* lb/yr CH_4) + (298 *lb/yr N_2O)] * [1 MT/2,205 lb]

Equipment Description	Equipment Type	Fuel Type	Equipment Rating (MMBtu/hr)	Operating Schedule			Greenhouse Gas Emissions			
				Hours/day	Days/wk	Weeks/yr	CO_2 (lbs/yr)	CH_4 (lbs/yr)	N_2O (lbs/yr)	CO_2 eq (MT/yr)
Combined cycle unit, able	Engine-Prime Power	Natural Gas	2224	24	7	52	2.27E+09	4.28E+04	4.28E+03	1.03E+06
Please note that a more detailed set of GHG calculations is provided as part of the permit applications.										

Equipment Description	Equipment Type	Fuel Type	Equipment Rating (MMBtu/hr)	Operating Schedule			Greenhouse Gas Emissions			
				Hours/day	Days/wk	Weeks/yr	CO_2 (lbs/yr)	CH_4 (lbs/yr)	N_2O (lbs/yr)	CO_2 eq (MT/yr)
						Total	2.27E+09	4.28E+04	4.28E+03	1.03E+06

South Coast Air Quality Management District

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator To Appears On The Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(●) Fixed Location ( ) Various Locations

Section B - Location Data

Plot Plan

Please attach a site map for the project with distances and scales. Identify and locate the proposed equipment on the map. A copy of the appropriate Thomas Brothers page, a web-based map, or a sketch that shows the major streets and location of the equipment is acceptable.

Location of Schools Nearby

Is the facility located within a 1/4 mile radius (1,320 feet) of the outer boundary of a school? ( ) Yes (●) No

If yes, please provide name(s) of school(s) below:

School Name: _____ School Name: _____

School Address: _____ School Address: _____

Distance from stack or equipment vent to the outer boundary of the school: _____ feet

Distance from stack or equipment vent to the outer boundary of the school: _____ feet

CA Health & Safety Code 42301.9: "School" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.

Population Density

(●) Urban ( ) Rural (<50% of land within 3 km radius accounted for by urban land use categories, i.e., multi-family dwelling or industrial.)

Zoning Classification

(●) Mixed Use Residential Commercial Zone (M-U) ( ) Service and Professional Zone (C-S) ( ) Medium Commercial (C-3)

( ) Heavy Commercial (C-4) ( ) Commercial Manufacturing (C-M)

Section C - Emission Release Parameters - Stacks, Vents

Stack Data

Stack Height: 180.00 feet (above ground level) What is the height of the closest building nearest the stack? 111 feet

Stack Inside Diameter: 7.01 inches Stack Flow: 1,534,886 acfm Stack Temperature: 324 °F

Rain Cap Present: ( ) Yes (●) No Stack Orientation: (●) Vertical ( ) Horizontal

If the stack height is less than 2.5 times the closest building height (H), please provide information on any building within 5xH distance from the stack (attach additional sheet if necessary):

Building #/Name: See attached sheet. Building #/Name: _____

Building Height: _____ feet (above ground level) Building Height: _____ feet (above ground level)

Building Width: _____ feet Building Width: _____ feet

Building Length: _____ feet Building Length: _____ feet

Receptor Distance From Equipment Stack or Roof Vents/Openings

Distance to nearest residence or sensitive receptor*: 1,270 feet

Distance to nearest business: 1,040 feet

Building Information

Are the emissions released from vents and/or openings from a building? ( ) Yes (●) No

If yes, please provide:

Building #/Name: _____ Building Width: _____ feet

Building Height: _____ feet (above ground level) Building Length: _____ feet

*AQMD Rule 1470 defines SENSITIVE RECEPTOR as meaning any residence including private homes, condominiums, apartments, and living quarters, schools as defined under paragraph (b)(57), preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

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South Coast Air Quality Management District

Form 400-PS

Plot Plan And Stack Information Form

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Form 400A and Form 400-CEQA.

Section D - Authorization/Signature			
I hereby certify that all information contained herein and information submitted with this application is true and correct.			
Signature of Preparer: Leja Ganapa	Title of Preparer: Environ. Engineering Associate	Preparer's Phone #: (213) 367-6332 Preparer's Email: tejasree.ganapa@ladwp.com	
Contact Person: Andrea Villarin Contact's Email: Andrea.Villarin@ladwp.com	Contact's Phone#: (213) 367-0409 Contact's Fax#:	Date Signed: 10/2/2024	

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☐

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ATTACHMENT 1

Form 400-PS Attachment
Details of Buildings Included in Building Downwash Calculations

Scattergood Generating Station
Units 1 and 2 Green Hydrogen-Ready Modernization Project
Mitsubishi Option

	Building Name	Building ID	Height, ft	Length, ft	Width, ft
1	GE -7FA Heat Recovery Steam Generator	HRSG45	91.0	28.0	87.1
2	Air Cooled Condenser- Units 4 and 5	ACC45	113.5	134.5	219.2
3	Unit 7 (LMS100 SCR/CO Catalyst Housing)	SCR7	38.0	25.0	23.0
4	Unit 7 (ACHE Electrical Module)	AEM7	20.0	14.0	31.0
5	Unit 7 (Power Control Module)	PCM7	20.0	50.3	15.4
6	Unit 6 (LMS100 SCR/CO Catalyst Housing)	SCR6	38.0	25.0	23.0
7	Unit 6 (ACHE Electrical Module)	AEM6	22.5	31.0	14.0
8	Unit 6 (Power Control Module)	PCM6	20.0	50.3	15.3
9	Medium Voltage PDC	MVPDC	24.7	29.0	70.0
10	Plant Control Room (New Building)	PCR	75.7	137.9	30.2
11	Warehouse (New Building)	WHSE	35.0	44.0	149.9
12	Unit 6 (LMS100)- ACHE Intercooler	ACHE6A	25.0	100.4	58.7
13	Unit 6 (Uv1S100)- ACHE Aux Cooling	ACHE6B	25.0	40.5	58.8
14	Unit 7 (LMS100)- ACHE Intercooler	ACHE7A	25.0	47.6	118.8
15	Unit 7 (LMS100)- ACHE Aux Cooling	ACHE7B	25.0	42.6	58.8
16	Wet Surface Air Cooler- Units 4 & 5	WSAC45	22.0	25.8	28.1
17	Black Start Generator- Enclosure	EGD	13.0	52.2	11.5
18	New Wastewater Storage Tanks (T9)	T9	44.0	-	45 Dia.
19	New Wastewater Storage Tanks (T10)	T10	44.0	-	45 Dia.
20	Admin Building - Office Bay	FF	29.3	101.9	40.0
21	Unit 1& 2 Turbine Generator Bay	TGB	56.5	383.0	78.2
22	Unit 1&2 Boiler Bay	AA_BB	103.0	233.5	88.1
23	Machine Shop - Service Bay	WAREHOUSE	32.6	60.0	139.2
24	Electric, Carpenter & Instrument Shops, Offices, Lab & Parts Service - Service Bay	SHOPS	18.1	60.2	139.2
25	NN Building 2 (existing cooling tower)	NN	45.0	29.9	36.0
26	Tank 1	T1	38.1	-	75 Dia.
27	Tank 2	T2	38.1	-	75 Dia.
28	Tank 3	T3	37.5	-	90 Dia.
29	Tank 4	T4	24.0	-	60 Dia.
30	Tank 5	T5	48.0	-	162 Dia.
31	New Switchyard Building	NSYB	14.7	35.3	49.3
32	Old Switchyard Building	OSYB	12.7	20.4	16.0
33	SCC6-5000F Heat Recovery Steam Generator	HRSG89	91.0	40.0	82.0
34	Air Cooled Condenser- Units 8 & 9	ACC89	111.0	134.0	265.0
35	Wet Surface Air Cooler - Units 8 & 9	WSAC89	22.0	26.0	40.0

South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(●) Fixed Location ( ) Various Locations

Section B - Equipment Description

Turbine

Manufacturer: Mitsubishi Power Americas | Model: M501GAC | Serial No.:

Size (based on Higher Heating Value - HHV):

Manufacturer Maximum Input Rating: _____ MMBTU/hr _____ kWh

Manufacturer Maximum Output Rating: 2,224.00 MMBTU/hr _____ kWh

Function (Check all that apply)

[X] Electrical Generation [ ] Driving Pump/Compressor [ ] Emergency Peaking Unit
[ ] Steam Generation [ ] Exhaust Gas Recovery [ ] Other (specify): _____

Cycle Type

( ) Simply Cycle ( ) Regenerative Cycle
(●) Combined Cycle ( ) Other (specify): _____

Combustion Type

( ) Tubular (●) Can-Annular ( ) Annular

Fuel (Turbine)

[X] Natural Gas [ ] LPG [ ] Digester Gas*
[ ] Landfill Gas* [ ] Propane [ ] Refinery Gas* [X] Other*: hydrogen

* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).

Heat Recovery Steam Generator (HRSG)

Steam Turbine Capacity: _____ MW

Low Pressure Steam Output Capacity: _____ lb/hr @ _____ °F

High Pressure Steam Output Capacity: _____ lb/hr @ _____ °F

Superheated Steam Output Capacity: _____ lb/hr @ _____ °F

Duct Burner

Manufacturer: | Model:

Number of burners: _____ Rating of each burner (HHV): _____

Type: ( ) Low NOx (please attach manufacturer's specifications)

( ) Other: _____
Show all heat transfer surface locations with the HRSG and temperature profile

Fuel (Duct Burner)

( ) Natural Gas ( ) LPG ( ) Digester Gas*
( ) Landfill Gas* ( ) Propane ( ) Refinery Gas* ( ) Other*: _____

* (If Digester Gas, Landfill Gas, Refinery Gas, and/or Other are checked, attach fuel analysis indicating higher heating value and sulfur content).

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South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section B - Equipment Description (Cont.)

Air Pollution Control

- (◉) Selective Catalytic Reduction (SCR)* ( ) Selective Non-Catalytic Reduction (SNCR)*
- ( ) Oxidation Catalyst* ( ) Other (specify)*: _____
- ( ) Steam/Water Injection: Injection Rate: _____ lbs. water/lbs. fuel, or _____ mole water/mole fuel

* Separate application is required.

Capital Cost: _____ Installation Cost: _____ Annual Operating Cost: _____

Oxidation Catalyst Data (If Applicable)

Manufacturer: _____ Model: _____

Catalyst Dimensions: Length: _____ ft. _____ in. Width: _____ ft. _____ in. Height: _____ ft. _____ in.

Catalyst Cell Density: _____ cells/sq.in. Pressure Drop Across Catalyst: _____

Manufacturer's Guarantee: CO Control Efficiency: _____ % Catalyst Life: _____ yrs

VOC Control Efficiency: _____ % Operating Temp. Range: _____ °F

Space Velocity (gas flow rate/catalyst volume): _____ Area Velocity (gas flow/wetted catalyst surface area): _____

VOC Concentration into Catalyst: _____ PPMVD@ 15%O_2 CO Concentration inot Catalyst: _____ PPMVD@ 15%O_2

Section C - Operation Information

On-line Emissions Data

Pollutants	Maximum Emissions Before Control *		Maximum Emissions After Control	
	PPM@15% O_2, dry	lb/hour	PPM@15% O_2, dry	lb/hour
ROG			2	6.78
NOx			2	19.48
CO			1.5	8.89
PM_{10}				10.18
SOx				1.78
NH_3			5	

* Based on temperature, fuel consumption, and MW output.

Reference (attach data):

☐ Manufacturer Emission Data ☐ EPA Emission Factors ☐ AQMD Emission Factors ☐ Source Test

Stack or Vent Data

Stack Height: 180 ft. _____ in. Stack Diameter: 23 ft. _____ in.

Exhaust Temperature: 348 °F Exhaust Pressure: _____ inches water column

Exhaust Flow Rate: 1534866 CFM Oxygen Level: _____ %

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South Coast Air Quality Management District

Form 400-E-12
Gas Turbine

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section C - Operation Information (cont.)

Startup Data

No. of Startups per day: 3 No. of Startups per year: 792 Duration of each startup: 1 hrs.

Shutdown Data

No. of Shutdowns per day: 3 No. of Shutdowns per year: 792 Duration of each Shutdown: .5 hrs.

Startup and Shutdown Emissions Data

Pollutants	Startup Emissions		Shutdown Emissions	
	PPM@15% O_2, dry	lb/hour	PPM@15% O_2, dry	lb/hour
ROG		520		250
NOx		60		40
CO		1400		730
PM_{10}		6.2		3.6
SOx		1.06		1.52
NH_3				

Monitoring and Reporting

Continuous Emission Monitoring System (CEMS): CEMS Make: TBD

CEMS Model: TBD

Will the CEMS be used to measure both on-line and startup/shutdown emissions? (•) Yes ( ) No

The following parameters will be continuously monitored:

☒ NOx ☒ CO ☒ O_2

☒ Fuel Flow Rate ☒ Ammonia Injection Rate ☐ Other (specify):

☐ Ammonia Stack Concentration: Ammonia CEMS Make:

Ammonia CEMS Model:

Operating Schedule

Normal: 24 hours/day 7 days/week 52 weeks/yr

Maximum: 24 hours/day 7 days/week 52 weeks/yr

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info

Signature: Leya Ganapa Date: 10/2/2024

Title: Environ. Eng Assoc. Company Name: LADWP

Name: Tejasree Ganapa

Phone #: (213) 367-6332 Fax #:

Email: tejasree.ganapa@ladwp.com

Contact Info

Name: Andrea Villarin

Title: Manager of Air Quality Company Name: LADWP

Phone #: (213) 367-0409 Fax #:

Email: Andrea.Villarin@ladwp.com

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☐

© South Coast Air Quality Management District, Form 400-E-12 (2014.07)

South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

XPP

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

1. **Facility Name** (Business Name of Operator to Appear on the Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

2. **Valid AQMD Facility ID** (Available On Permit Or Invoice Issued By AQMD): 800075

3. **Owner's Business Name** (If different from Business Name of Operator): Los Angeles Department of Water and Power

Section B - Equipment Location Address

4. **Equipment Location Is:** (●) Fixed Location ( ) Various Location
(For equipment operated at various locations, provide address of initial site.)

12700 Vista Del Mar
Street Address
Playa Del Rey , CA 90293
City Zip
Abdul Rehman — Plant Manager
Contact Name — Title
(310) 524-8500 — Ext. — Fax #
E-Mail: Abdul.Rehman@ladwp.com

Section C - Permit Mailing Address

5. **Permit and Correspondence Information:**
☐ Check here if same as equipment location address

111 North Hope St Room 1050
Address
Los Angeles , CA 90012
City State Zip
Andrea Villarin — Manager of Air Quality
Contact Name — Title
(213) 367-0409 — Ext. — Fax #
E-Mail: Andrea.Villarin@ladwp.com

Section D - Application Type

6. **The Facility Is:** ( ) Not In RECLAIM or Title V ( ) In RECLAIM ( ) In Title V (●) In RECLAIM & Title V Programs

7. **Reason for Submitting Application** (Select only ONE):

7a. New Equipment or Process Application: 10
- (●) New Construction (Permit to Construct)
- ( ) Equipment On-Site But Not Constructed or Operational
- ( ) Equipment Operating Without A Permit *
- ( ) Compliance Plan
- ( ) Registration/Certification
- ( ) Streamlined Standard Permit

7b. Facility Permits:
- ( ) Title V Application or Amendment (Refer to Title V Matrix)
- ( ) RECLAIM Facility Permit Amendment

7c. Equipment or Process with an Existing/Previous Application or Permit:
- ( ) Administrative Change
- ( ) Alteration/Modification
- ( ) Alteration/Modification without Prior Approval *
- ( ) Change of Condition
- ( ) Change of Condition without Prior Approval *
- ( ) Change of Location
- ( ) Change of Location without Prior Approval *
- ( ) Equipment Operating with an Expired/Inactive Permit *

Existing or Previous Permit/Application
If you checked any of the items in 7c., you MUST provide an existing Permit or Application Number: _____

* A Higher Permit Processing Fee and additional Annual Operating Fees (up to 3 full years) may apply (Rule 301(c)(1)(D)(i)).

8a. **Estimated Start Date of Construction** (mm/dd/yyyy): 08/26/2026

8b. **Estimated End Date of Construction** (mm/dd/yyyy): 12/31/2029

8c. **Estimated Start Date of Operation** (mm/dd/yyyy): 12/31/2029

9. **Description of Equipment or Reason for Compliance Plan** (list applicable rule):
Application for Permit to Construct and Permit to Operate, SCR/CO Catalyst, Combined Cycle Combustion Turbine Unit 8

10. **For Identical equipment, how many additional applications are being submitted with this application?** (Form 400-A required for each equipment / process): 0

11. **Are you a Small Business as per AQMD's Rule 102 definition?** (10 employees or less and total gross receipts are $500,000 or less OR a not-for-profit training center) (●) No ( ) Yes

12. **Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment?** (●) No ( ) Yes
If Yes, provide NOV/NC#: _____

Section E - Facility Business Information

13. **What type of business is being conducted at this equipment location?** Utility

14. **What is your business primary NAICS Code?** (North American Industrial Classification System): 22111

15. **Are there other facilities in the SCAQMD jurisdiction operated by the same operator?** ( ) No (●) Yes

16. **Are there any schools (K-12) within 1000 feet of the facility property line?** (●) No ( ) Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. **Signature of Responsible Official:** Donald Treinen

18. **Title of Responsible Official:** Manager of Steam Generation

19. **I wish to review the permit prior to issuance.** (This may cause a delay in the application process.) ( ) No (●) Yes

20. **Print Name:** Donald Treinen

21. **Date:** 10/2/2024

22. **Do you claim confidentiality of data?** (If Yes, see instructions.) ( ) No (●) Yes

23. **Check List:** ☒ Authorized Signature/Date ☒ Form 400-CEQA ☒ Supplemental Form(s) (ie., Form 400-E-xx) ☒ Fees Enclosed

AQMD USE ONLY	APPLICATION TRACKING #	CHECK #	AMOUNT RECEIVED	PAYMENT TRACKING #	VALIDATION
	655872 SA	700564199	$ 17,734.76	170183	10/16/2024 AA

DATE	APP REJ	DATE	APP REJ	CLASS I III	BASIC CONTROL	EQUIPMENT CATEGORY CODE	TEAM	ENGINEER	REASON/ACTION TAKEN
							E		

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South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

Section A - Operator Information

Facility Name (Business Name of Operator That Appears On Permit): LA CITY, DWP SCATTERGOOD GENERATING STATION

Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800075

Address where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site): 12700 Vista Del Mar, Playa Del Rey, CA 90293

(•) Fixed Location ( ) Various Locations

Section B - Equipment Description

Selective Catalytic Reduction (SCR)

SCR Catalyst

Manufacturer: Haldor Topsoe or equivalent — Catalyst Active Material: _____

Model Number: GT-201 — Type: _____

Size of Each Layer or Module: L: 2 ft. _____ in. W: 13 ft. 11 in. H: 4 ft. 7.7 in.

No. of Layers or Modules: 30 — Total Volume: 1589 cu. ft. — Total Weight: _____ lbs.

Reducing Agent

( ) Urea ( ) Anhydrous Ammonia (•) Aqueous Ammonia 19.00 % — Injection Rate: 700 lb/hr

Reducing Agent Storage*

Diameter: _____ ft. _____ in. Height: _____ ft. _____ in. Capacity: 90000 gal

Pressure Setting: _____ psia

* A separate permit may be needed for the storage equipment.

Space Velocity

Gas Flow Rate/Catalyst Volume: _____ per hour

Area Velocity

Gas Flow Rate/Wetted Catalyst Surface Area: _____ ft/hr

Manufacturer's Guarantee

NOx: 2 ppm $\%O_2$: 15.00 — NOx: _____ gm/bhp-hr — Ammonia Slip: 5 ppm @ 15.00 $\%O_2$

Catalyst Life

_____ years (expected)

Cost

Capital Cost: _____ Installation Cost: _____ Catalyst Replacement Cost: _____

Oxidation Catalyst

Oxidation Catalyst

Manufacturer: Johnson Matthey or equivalent — Catalyst Active Material: _____

Model Number: SO-13200421 — Type: Platinum, wash-coated metallic substrate

Size of Each Layer or Module: L: 1 ft. _____ in. W: 13 ft. _____ in. H: 35 ft. _____ in.

No. of Layers or Modules: 455 — Total Volume: 374.6 cu. ft. — Total Weight: _____ lbs.

Space Velocity

Gas Flow Rate/Catalyst Volume: _____ per hour

Manufacturer's Guarantee

VOC: 2 ppm VOC: _____ gm/bhp-hr $\%O_2$: 15.00

CO: 1.5 ppm CO: _____ gm/bhp-hr $\%O_2$: 15

Catalyst Life

5 years (expected)

Cost

Capital Cost: _____ Installation Cost: _____ Catalyst Replacement Cost: _____

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South Coast Air Quality Management District

Form 400-E-5
Selective Catalytic Reduction (SCR) System, Oxidation Catalyst, and Ammonia Catalyst

This form must be accompanied by a completed Application for a Permit to Construct/Operate - Forms 400-A, Form 400-CEQA, and Form 400-PS.

Section B - Equipment Description (cont.)

Ammonia Catalyst

Ammonia Catalyst	Manufacturer:_____ Catalyst Active Material:_____ Model Number:_____ Type:_____ Size of Each Layer or Module: L:____ ft.____ in. W:____ ft.____ in. H:____ ft.____ in. No. of Layers or Modules:_____ Total Volume:_____ cu. ft. Total Weight:_____ lbs.
Space Velocity	Gas Flow Rate/Catalyst Volume:_____ per hour
Manufacturer's Guarantee	NH_3:_____ ppm $\%O_2$:_____
Catalyst Life	_____ years (expected)
Cost	Capital Cost:_____ Installation Cost:_____ Catalyst Replacement Cost:_____

Section C - Operation Information

Operating Temperature	Minimum Inlet Temperature:_____ °F (from cold start) Maximum Temperature:_____ °F Warm-up Time:_____ hr._____ min. (maximum)
Operating Schedule	Normal: 24 hours/day 7 days/week 52 weeks/yr Maximum: 24 hours/day 7 days/week 52 weeks/yr

Section D - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application is true and correct.

Preparer Info	Signature: Tejas Ganapa Date: 10/2/2024 Title: Environ. Eng Assoc. Company Name: LADWP	Name: Tejasree Ganapa Phone #: (213) 367-6332 Fax #: Email: tejasree.ganapa@ladwp.com
Contact Info	Name: Andrea Villarin Title: Manager of Air Quality Company Name: LADWP	Phone #: (213) 367-0409 Fax #: Email: Andrea.Villarin@ladwp.com

THIS IS A PUBLIC DOCUMENT

Pursuant to the California Public Records Act, your permit application and any supplemental documentation are public records and may be disclosed to a third party. If you wish to claim certain limited information as exempt from disclosure because it qualifies as a trade secret, as defined in the District's Guidelines for Implementing the California Public Records Act, you must make such claim at the time of submittal to the District.

Check here if you claim that this form or its attachments contain confidential trade secret information. ☒

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South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

XPP

Mail To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765-0944
Tel: (909) 396-3385
www.aqmd.gov

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Abdul Rehman Plant Manager
Contact Name Title
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Phone #
E-Mail: Abdul.Rehman@ladwp.com

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111 North Hope St Room 1050
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City State Zip
Andrea Villarin Manager of Air Quality
Contact Name Title
(213) 367-0409 Ext. Fax #
Phone #
E-Mail: Andrea.Villarin@ladwp.com

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8c. **Estimated Start Date of Operation** (mm/dd/yyyy): 12/31/2029

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Application for Permit to Construct and Permit to Operate – Title V Significant Permit Revision

10. **For Identical equipment, how many additional applications are being submitted with this application?** (Form 400-A required for each equipment / process): 0

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If Yes, provide NOV/NC#:

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							E		

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S.C.A.Q.M.D.
PERMIT PROCESSING

Environmental & EJ Parties – Scattergood DEIR Comments Exhibit 3

P95-96

REGENERATE CALIFORNIA
POWER UP CLEAN ENERGY | POWER DOWN DIRTY GAS



Report
2024

THE NOTORIOUS NINE: GAS PLANT POLLUTION IN ENVIRONMENTAL JUSTICE COMMUNITIES

Key Findings on NOx Exceedances and the Hidden Pollutants Affecting Public Health

REGENERATE CALIFORNIA



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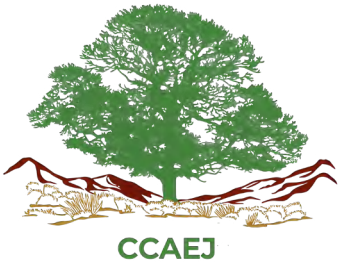
Disclaimer

This study was commissioned by Regenerate California, a coalition led by the California Environmental Justice Alliance and the Sierra Club, in partnership with the Central Coast Alliance United for a Sustainable Economy, Communities for a Better Environment, and the Center for Community Action and Environmental Justice. Regenerate California's mission is to transition California away from gas-fired power plants and toward a just, clean energy economy powered by 100% renewable energy resources.











Acknowledgements

The report team — Heena Singh, Julia Rose Manriquez Dowell, Katherine Ramsey, Mari Rose Taruc, and Tyler Valdes — thank our coalition members and partners for their generous time and contributions to this report.

Research, data modeling, and analysis was conducted by Dr. Ranajit Sahu. This report was developed and designed in collaboration with Sunstone Strategies.

Executive Summary

The Notorious Nine: Gas Plant Pollution in Environmental Justice Communities

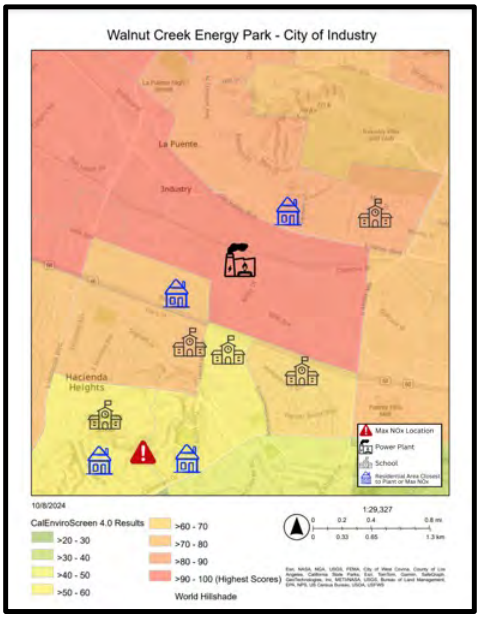
Regenerate California, a coalition led by the Sierra Club and the California Environmental Justice Alliance, commissioned a study on the emission of nitrogen oxides, or NOx, from gas-fired power plants as part of their efforts to transition California away from fossil fuels and toward 100% renewable energy. NOx emissions are proven to contribute to smog and other severe public health harms, including asthma, respiratory illness, and increased rates of hospitalization. **Nine gas plants were identified as at risk of violating national air quality standards.**

California Context:

State energy goals include reaching 100% clean energy by 2045, and reduction of greenhouse gas emissions to 40% of 1990 levels by 2030. California agencies — California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Air Resources Board (CARB) — have already begun undertaking the transition from fossil fuels to clean, renewable energy. However, California's decision to invest billions of dollars in fossil fuel infrastructure through the Strategic Reliability Reserve, including gas-fired power plants, contradicts state goals.

Walnut Creek Energy Park:

This report affirms that prolonged exposure to emissions from gas-fired power plants exacerbates climate and public health harms in environmental justice communities. This is especially true at Walnut Creek Energy Park, one of the worst offenders of California gas plants, which has repeatedly shown levels of NOx that are close to or above national air quality standards. The census tract for the area shows a population that is 80% Hispanic/Latinx and faces some of the most severe levels of pollution in the state. The residential neighborhood that suffers the most NOx emissions from the plant is less than 1.5 miles away. A nearby railroad, multiple warehouses, and a major freeway worsen the climate and public health impacts from the power plant.





Key Findings:

- Public access to information and emissions data from California gas plants is limited due to gaps in reporting and regulation.
- Gas plant emissions are at their highest during plant start-up and shutdown, when pollution controls are typically ineffective or not operational.
- NOx is not the only harmful emission coming from gas-fired power plants. Combustion in gas plants leads to formation of other pollutants, including ammonia, PM 2.5, and formaldehyde which are among the most concerning.

Key Recommendations:

- State energy agencies and utilities must reduce California's reliance on dirty gas plants with priority for environmental justice communities.
- Regulators must support improvements in data reporting. All reporting information must be made available to the public.
- Gas plant owners and operators must be required to improve NOx emissions monitoring.
- Air quality management districts should perform further detailed analysis and investigate potential air permit violations.
- Air quality management districts should broaden impact analysis by looking at other gas plant pollutants.

California's Next Move:

As frontline communities continue to experience public health harms, including increased rates of respiratory illness, pregnancy complications, and in severe cases cancer, it is the responsibility of state and local regulators to make decisions that best protect Californians. California's move away from dirty fossil fuels toward an equitable, clean energy future is a necessity that must center the voices and lived experiences of environmental justice communities.

Introduction

Historically, California has struggled with air quality violations, consistently failing to meet the U.S. Environmental Protection Agency's (EPA) Clean Air Act standards, where multiple regions including the South Coast air basin are in non-attainment status.[1] Polluting facilities and inadequate health and environmental laws cause a long legacy of poor air quality that disproportionately burdens low-income communities of color who live closest to fossil fuel infrastructure such as gas-fired power plants. These communities are commonly referred to as environmental justice communities – neighborhoods most burdened and harmed by many cumulative sources of pollution and injustice. On a state policy level, they are referred to as Disadvantaged Communities (DACs) which are the most burdened census tracts identified by CalEnviroScreen[2] using over 20 indicators of environmental, health, and socio-economic burdens. These communities face the compounded effects of harmful air pollutants like nitrogen oxides (NOx) which are linked to respiratory and cardiovascular diseases, among other health issues. Community-based organizations are working to hold corporations and California decision-makers accountable to meet greenhouse gas reduction, climate, and 100% renewable energy targets. To meet these goals, California must retire its gas plants.



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In 2022, Governor Gavin Newsom authorized Assembly Bill 205, which allocated a controversial $2.2 billion "Strategic Reliability Reserve" to bolster fossil-fueled resources, including gas-fired power plants and diesel backup generators, under the premise of ensuring adequate power supplies[3]. This legislation not only paved the way for the proposal of new gas plants in Lodi, Modesto, and Turlock, — which are exempt from normal regulatory review processes — but also disrupted previously established plans to shut down gas plants in Oxnard, Long Beach, and Huntington Beach. These delays occurred despite mounting concerns from fenceline communities and environmental justice advocates regarding the public health and environmental impacts of these facilities[4].

Furthermore, the state is undertaking a multi-agency effort to transition the electric sector away from fossil fuels. Senate Bill 100[5] (De León) requires agencies to develop renewable energy and zero-carbon resources to supply 100% of retail sales to end-use customers by 2045. This mandate also requires the California Energy Commission (CEC), California Public Utilities Commission (CPUC), and California Air Resources Board (CARB) to release a Joint Agency Report every four years outlining how they can achieve 100% carbon-free energy by 2045[6].

Given this political and environmental backdrop, an urgent need emerged to assess to what extent emissions — specifically regarding NOx emissions — from existing gas-fired power plants contribute to air quality violations. NOx pollution remains a key contributor to ozone, a greenhouse gas that is a precursor to smog and health risks, and particulate matter pollution, especially in low-income communities of color living near these facilities. Exposure to NOx emissions is correlated with more hospital admissions and increased risk of respiratory complications and related illness, such as asthma[7].

This analysis was designed to evaluate compliance with the 1-hour NOx National Ambient Air Quality Standard (NAAQS), which is set at 188 µg/m³. The goal was to identify which plants posed a risk of exceeding these emissions thresholds, especially as California continues to invest in and rely on fossil fuel infrastructure, despite broader efforts to transition to clean energy sources.

The following sections outline the methodology used to conduct this analysis, summarize key findings, examine the nine power plants that are at risk for exceeding the air pollution standards, provide recommendations for

further action to address emissions and protect community health.

Methodology

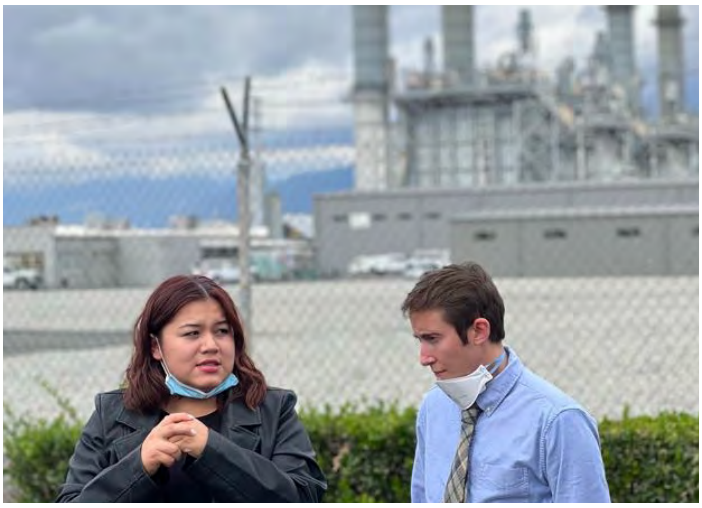
Regenerate California identified 31 gas-fired power plants across Southern and Central California counties located in air basins that have not attained EPA national ambient air quality standards and are in or near multiple DACs. These plants were then selected for preliminary analysis. This analysis was designed to evaluate compliance with national air quality standards.

The analysis compared NOx emission values from 2020-2023 against the NAAQS limit. The findings highlighted which plants may be at risk of exceeding the standard. Further detailed analysis could delve into the statistical comparisons, which would provide more depth, however this screening primarily looks at raw numbers.

The screening data was obtained from the EPA's Clean Air Markets Program Data (CAMPD) database, with exception to three smaller plants (Drews, Century, and Springs) whose data was not publicly available because they are not required to report to the EPA or other authorities. In these cases, NOx input data were substituted from the most representative similar plants in the analysis. Engineering judgment — knowing their locations and individual turbine sizes as well as the make and model of the turbines — was used to estimate emissions for these smaller plants based on similarly sized and operating plants. For all other plants, stack height, diameter, and exhaust velocities were collected from permit documents, stack tests, and other public sources. This preliminary data was used for running initial models and selecting a subset of 18 plants for more refined analysis.

NOx concentrations were modeled using regional meteorological data. Due to on-site data not being publicly available for all plants, representative meteorological data from nearby locations was used for the analysis. Maps overlaid with CalEnviroScreen data were developed that illustrate the location of the gas power plants, nearby schools and residential areas, and the max NOx location which is where concentrations of NOx emissions from the gas plants are the highest based on a combination of wind and terrain patterns.

Table 1 provides a list of all selected plants with their respective county and city locations. The Redondo Beach plant is excluded from this list, as it ceased operations permanently on January 1, 2024, bringing the total number of plants examined to 30. Additionally, the impact analysis for AES Huntington Beach and Alamitos focused solely on the gas-fired units, excluding the residual oil-fired units. However, the conclusions—specifically, that these plants do not appear to cause a 1-hour NOx NAAQS violation—would remain unchanged even if the emissions from the residual oil-fired units were included. Of the 30 gas plants examined, nine were identified as at risk of exceeding the NAAQS emissions standard.



© Tiffany Eng

Power Plant	County	City
Magnolia Power Project	Los Angeles	Burbank
Malburg Generating Station	Los Angeles	Vernon
AES Alamitos (Combustion Turbines)	Los Angeles	Long Beach
Walnut Creek Energy Park	Los Angeles	City of Industry
Center	Los Angeles	Norwalk
El Segundo	Los Angeles	El Segundo
Canyon Power Plant	Orange	Anaheim
AES Huntington Beach (Combustion Turbines)	Orange	Huntington Beach
Stanton	Orange	Stanton
Springs Substation	Riverside	Riverside
Riverside Energy Resource Center	Riverside	Riverside
Sentinel Energy Center	Riverside	Desert Hot Springs
Mountainview Power	San Bernardino	San Bernardino
Century Generating Facility	San Bernardino	Colton
Drews Generating Facility	San Bernardino	San Bernardino
Agua Mansa Combustion Turbines	San Bernardino	Colton
Grapeland Peaker	San Bernardino	Rancho Cucamonga
High Desert Power Project	San Bernardino	Victorville
Mira Loma	San Bernardino	Ontario
La Paloma Generating	Kern	McKittrick
Pastoria Energy Center	Kern	Lebec
NRG Sunrise Power Project[8]	Kern	Fellows
Tracy Combined Cycle (Middle River Power)	San Joaquin	Tracy
Lodi	San Joaquin	Lodi
Ormond Beach Generating Station	Ventura	Oxnard
Malaga	Fresno	Fresno
Midway Peaking	Fresno	Firebaugh
Panoche Energy Center	Fresno	Firebaugh
Almond	Stanislaus	Ceres
Walnut Energy Center	Stanislaus	Turlock

Table 1: The 30 gas plants initially examined for NOx emissions

Key Findings

The majority of California's gas plants are located in or near Disadvantaged Communities. Emissions from these plants, including NOx emissions, directly impact levels of air pollution in frontline communities, exposing them to severe health hazards. Key findings suggest that one plant, the Walnut Creek Energy Park in the City of Industry in Los Angeles County, emits enough NOx pollution to potentially violate the 1-hour NOx NAAQS as a single source. Table 2 shows 8 other plants that also appear to be at risk of potentially violating the 1-hour NOx NAAQS. It is recommended that additional detailed modeling for these 8 plants as well as the Walnut Creek Energy Park plant be conducted, per recommendations below.



Power Plant	City
Los Angeles County	
Walnut Creek Energy Park	City of Industry
Riverside County	
Springs Substation Generation Project	Riverside
Riverside Energy Resources Center	Riverside
Sentinel Energy Center	Desert Hot Springs
San Bernardino County	
Agua Mansa Combustion Turbines	Colton
Kern County	
La Paloma Generating	McKittrick
Pastoria Energy Center	Lebec
NRG Sunrise Power Project[9]	Fellows
San Joaquin County	
Tracy Combined Cycle (Middle River Power)	Tracy

Table 2: Nine gas plants at risk of violating the 1-hour NOx NAAQS standard, as a single source

There are significant gaps in public information about NOx emissions from multiple gas plants. Not all plants are required to report emissions, especially smaller facilities, leaving nearby residents unaware of the levels of pollution they face. Frontline communities most vulnerable to the impacts of gas plant emissions have a right to know about the pollution affecting their health. Greater transparency and stricter regulations are needed to ensure that all power plants, regardless of size, report their emissions.

While most of the selected power plants report NOx emissions on an hourly basis to the EPA's CAMPD database[10] , there were exceptions. Three smaller plants, each under 50 MW in capacity, were not required to report their emissions due to their size. This regulatory gap, where smaller power plants are exempt from mandatory reporting, underscores a significant shortfall in current regulations. Addressing this gap would provide a more comprehensive understanding of emissions across all power plants, regardless of size. This could be remedied by amending federal or local regulations.

None of the analyzed plants publicly reported hourly, on-site collected meteorological data. This data is a crucial input for NOx modeling. As a result, meteorological data from nearby locations were used instead. This gap in gas plant reporting data creates opportunity for inaccuracy in our analysis as the substituted data is not necessarily representative of the exact plants, suggesting the need for improved data collection and public reporting practices.

Other gaps in reporting information include plant geometry, exhaust flow rates, and exhaust velocities. Despite being essential inputs for modeling, these parameters are not required to be publicly reported in a systematic way. Gathering this information involved a time-consuming process of reviewing permits, permit applications, stack test reports, and visual sources like Google Maps and Google Earth. Public access to this critical information is increasingly limited. To enhance transparency and accuracy in air quality modeling, it is recommended that source characteristics reporting be mandated for all gas power plants.

Startup and Shutdown Emissions

The most concerning gas plant emissions often occur during startup and shutdown periods when pollution controls are either ineffective or not operational. These spikes in pollution are not well-regulated, leaving dangerous gaps in air quality protections.

In particular, while all of the plants in the study were equipped with Selective Catalytic Reduction (SCR) units, considered the best available type of control for NOx, the actual NOx emitted depends on how such SCR units are actually designed and operated on a day-to-day basis. NOx emissions for specific hours can be substantially higher during non-normal operating time periods, such as during startup-up or similar time periods when the SCR NOx control is not working as compared to time periods when such controls are operating. As an example, Riverside Unit 1 has a median NOx emission rate of just 2.72 pounds per hour during 2022-2023 while the maximum hourly NOx emissions were almost 370 pounds per hour - a factor of over 136 times higher. As another example, the Sunrise Power Company Unit 1's median NOx rate from 2022-2023 was 9.14 pounds per hour while its maximum hourly NOx emissions in the same time period was almost 229 pounds per hour - a factor of 25 times greater.

Unfortunately, there are no regulatory reporting requirements relating to SCR performance. Nonetheless, since the SCR relies on a catalyst to effect the NOx reduction, and the catalyst is not "active" below a certain temperature or load, NOx emissions–even for SCR-equipped units–are high under startup and shutdown conditions. How often these conditions occur depends on whether a unit is dispatched to meet peak loads ("peakers"), or provide baseload electricity or something in-between. For example, Sentinel Energy Center is equipped with NOx controls, but emissions remain especially high during shutdowns when pollution controls are less effective.

More than NOx

While this study primarily focused on NOx emissions from the selected group of gas plants, it is important to acknowledge that the combustion of methane gas in these combustion-turbine plants also leads to the formation and direct emissions of various other pollutants. These pollutants pose significant environmental and public health risks. Pollutants include:

Carbon Monoxide (CO): A colorless, odorless gas that can impair cognitive functions and lead to serious health issues, particularly in high concentrations.

Volatile Organic Compounds (VOCs): A diverse group of organic chemicals that can evaporate into the air, contributing to smog formation and posing health risks such as respiratory problems and long-term effects including cancer.

Particulate Matter (PM): Emissions include various sizes of particulate matter, notably PM10 and PM2.5, which can penetrate deep into the lungs and have been associated with cardiovascular and respiratory diseases.

Sulfur Dioxide (SO_2) and Sulfur Trioxide (SO_3): These sulfur oxides contribute to acid rain and can exacerbate respiratory conditions, affecting both human health and ecosystems.

Sulfuric Acid Mist: This pollutant results from the conversion of sulfur oxides in the atmosphere and can cause severe health effects, particularly in individuals with preexisting respiratory conditions.

Ammonia (NH_3): Often utilized in selective catalytic reduction (SCR) systems to control NOx emissions, ammonia itself can lead to secondary pollution issues and contribute to the formation of fine particulate matter.

Hazardous Air Pollutant Metals: These metals are often found within PM10 and PM2.5 emissions and include toxic substances that can lead to serious health effects upon exposure.

Hazardous Air Pollutant VOCs: Specific VOCs, such as formaldehyde and benzene, are of particular concern due to their carcinogenic properties and adverse health effects.

Uncombusted Methane: As a significant component of methane gas, uncombusted methane is a potent greenhouse gas that contributes to climate change.

Carbon Dioxide (CO_2): The primary product of methane gas combustion, CO_2 is a greenhouse gas that contributes to climate change.

Nitrous Oxide (N_2O): Another greenhouse gas emitted during combustion, which has a much greater heat-trapping ability than CO_2.

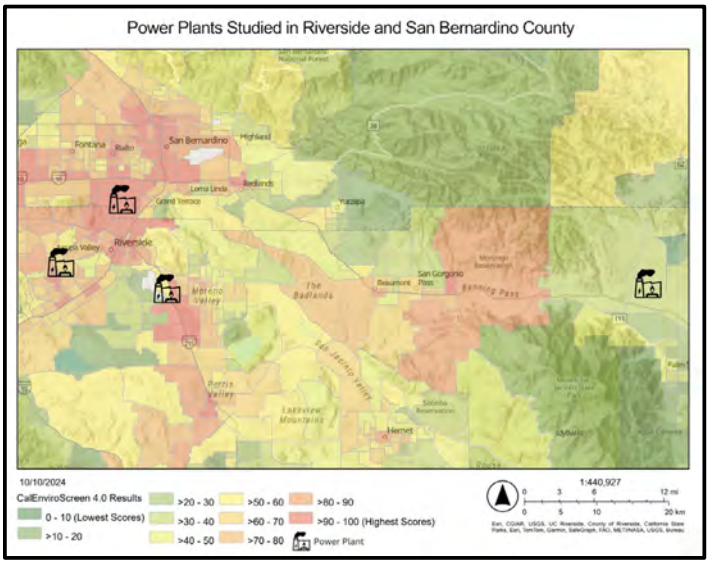
Among these emissions, ammonia, PM2.5, and hazardous air pollutants such as formaldehyde are especially concerning. Their direct adverse effects on surrounding communities can lead to detrimental health outcomes, including respiratory issues, cardiovascular diseases,

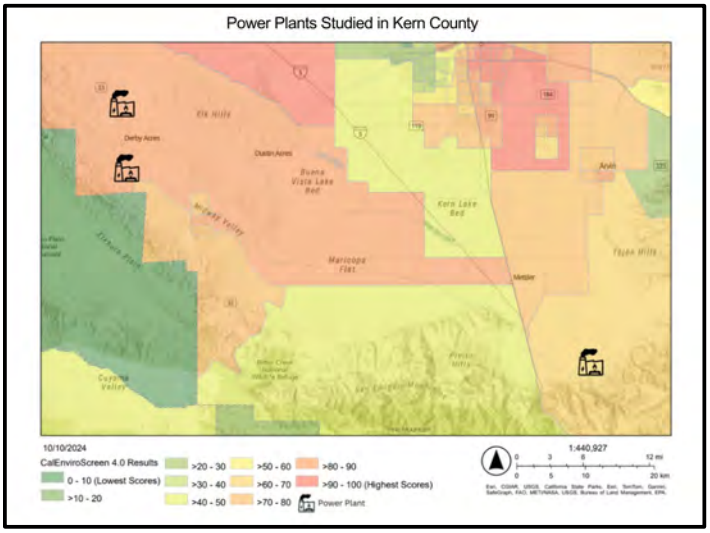
and increased cancer risk. Therefore, it is crucial for regulatory frameworks to consider not only NOx emissions, but also the full spectrum of pollutants associated with methane gas combustion to safeguard public health and the environment effectively.

Top Polluting Gas Plants in California (with Maps)



The 9 most NOx emitting gas plants out of the 30 plants modeled in this report.





Likely in violation of federal air standards

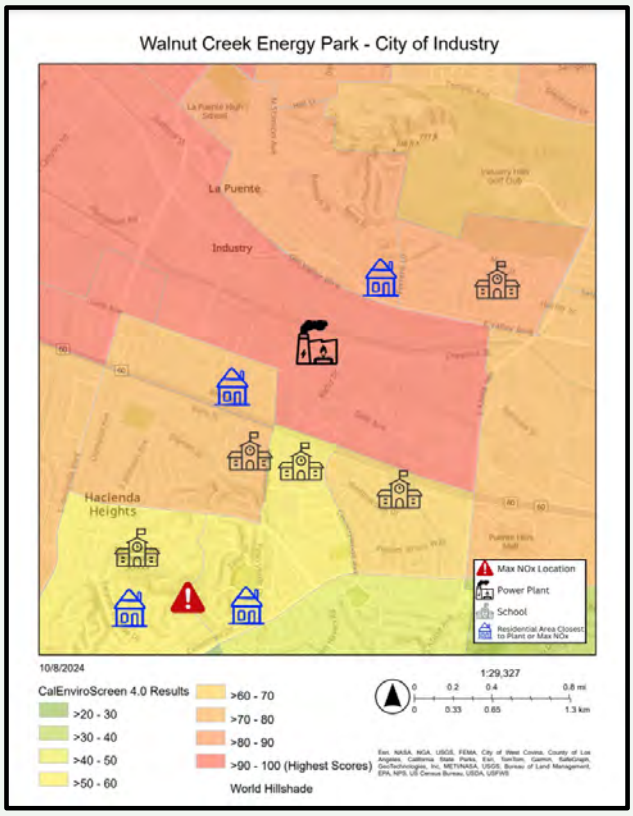
1 Walnut Creek Energy Park

Location: City of Industry, Los Angeles County
Owner: Clearway Energy
Utility Service Territory: Southern California Edison
Power Plant Pollution Burden Percentile[11] : 100

NOx levels: Walnut Creek Energy Park has repeatedly shown levels of NOx that are close to or above national air quality standards. It's a major concern for local residents. Further analysis is needed to determine whether it is consistently exceeding the 1-hour NOx limit set by the EPA.

Census tract and socio-economic context: Walnut Creek Energy Park is located in the City of Industry. The Census Tract in which the plant is located is predominantly Hispanic/Latinx (80.8%). The CalEnviroScreen Pollution Burden of this census tract is 100, meaning that compared to all other census tracts in the state, this is one of the most severely polluted communities. This community experiences high levels of pollution from cleanup sites, groundwater threats, hazardous waste, and solid waste. Socioeconomic factors impacting this community include poverty, unemployment, linguistic isolation, and housing burden. Additionally, this community experiences health impacts including asthma and cardiovascular disease. This power plant is located within two miles of Hurley Elementary School and less than half a mile from the nearest residential area.

The community that experiences the most NOx emissions from this power plant is about 1.2 miles southwest of the plant. This is a residential community with two elementary schools: Mesa Robles





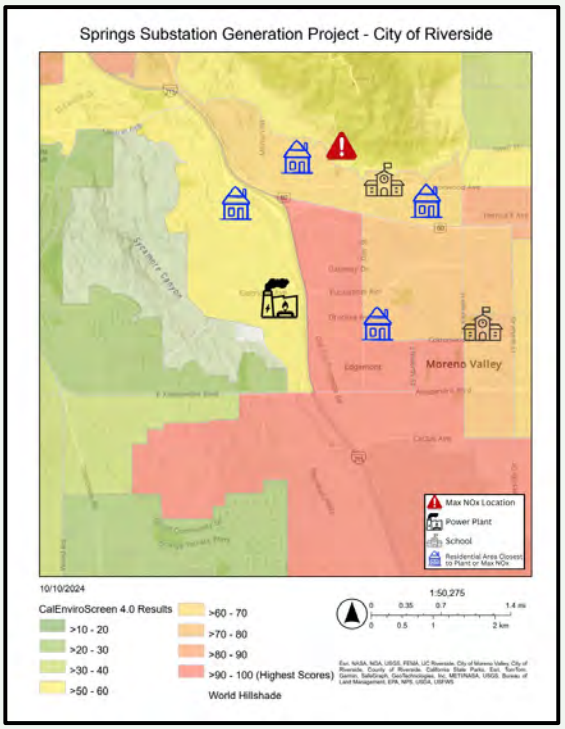
Elementary School and Grazide Elementary School. This community has a population of 4,214 people and is predominantly Asian American (52.2%) and Hispanic/Latinx (31.9%). This community is impacted by pollution including ozone, particulate matter 2.5, and toxic releases. This community faces health impacts such as asthma, low birth weight, and cardiovascular disease.

Additional Contributing environmental factors: The Walnut Creek Energy Park is located next to a railroad, numerous warehouses, and the 60 freeway. These cumulative impacts likely contribute to the NOx emissions in the area.

2 Springs Substation

Location: Riverside, Riverside County
Owner: City of Riverside
Utility Service Territory: Riverside Public Utilities
Power Plant Pollution Burden Percentile : 58

NOx levels: Springs Substation Generation Park is among the top NOx emitters in the region. It is especially problematic during startup and shutdown periods when emissions spike, creating health risks for nearby communities.



Census tract and socio-economic context: Springs Substation Generation Park is located in the City of Riverside. The Census Tract in which the plant is located is predominantly White (39%) and Hispanic/Latinx (30.2%). Ozone is the biggest pollutant of concern, being in the 98th percentile. This community experiences high levels of diesel particulate matter and particulate matter 2.5 pollution. Health impacts in the community include asthma and cardiovascular disease. This plant is located less than one mile from Edgemont Elementary School and is next to a residential community with a CalEnviroScreen score in the 99th percentile, meaning only 1% of census tracts in the state are more environmentally and socially burdened.

The community that experiences the most NOx emissions from this power plant is less than 2 miles northeast of the power plant near a residential community in Moreno Valley. This area is also less than one mile from Box Spring Elementary School. This community is predominantly Hispanic/Latinx (45.8%) and White (30.6%) and experiences some of the worst ozone pollution in the state and experiences health impacts including asthma, low birth weight, and cardiovascular disease.

3 Riverside Energy Resource Center

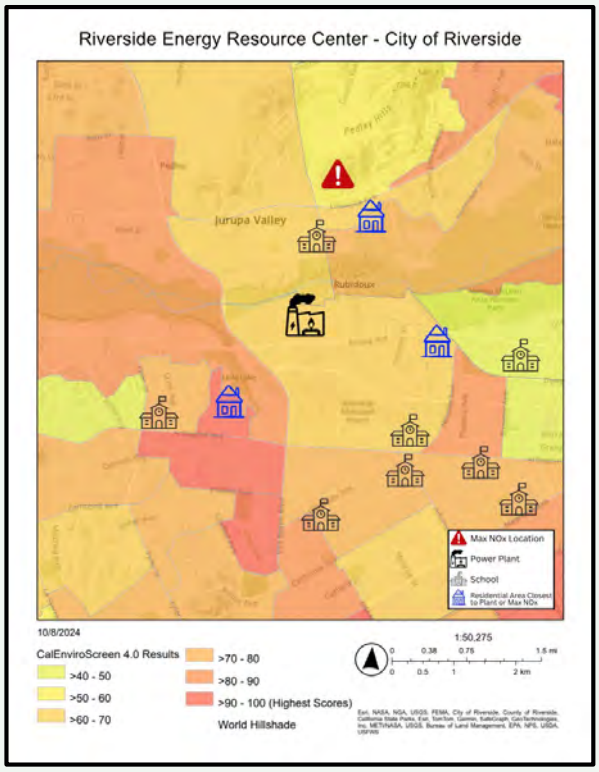
Location: Riverside, Riverside County
Owner: City of Riverside
Utility Service Territory: Riverside Public Utilities
Power Plant Pollution Burden Percentile : 90

NOx levels: Riverside Energy Resource Center poses a risk to public health due to significant NOx emissions, particularly when it operates at low loads.

Census tract and socio-economic context: Riverside Energy Resource Center is located in the City of Riverside, in a predominantly Hispanic/Latinx (67.1%) community. This community experiences some of the highest pollution burdens in the state, including exposures to ozone, particulate matter 2.5, and hazardous waste. Health impacts in the community include asthma and cardiovascular disease.

The community that experiences the most NOx emissions from this power plant is less than 2 miles north of the power plant near a residential community in Jurupa Valley and is near Indian Hills Elementary School. This community also experiences high levels of ozone and particulate matter pollution.

Additional Contributing Environmental Factors: Riverside Energy Center is located approximately 10 miles from Springs Substation. Communities between these two plants likely experience cumulative impacts from both plants as well as the nearby Riverside Airport, the 215 and 60 freeways, and trucks going to and from nearby warehouses.





4 Sentinel Energy Center

Location: Desert Hot Springs, Riverside County

Owner: Multiple corporations including Diamond Generating Corp

Utility Service Territory: Southern California Edison

Power Plant Pollution Burden Percentile : 11

NOx levels: Although Sentinel Energy Center is equipped with NOx controls, emissions remain high, especially during shutdowns when pollution controls are less effective.

Census tract and socio-economic context: The Sentinel Energy Center is located in the City of Desert Hot Springs. The community is predominantly Hispanic/Latinx (45.9%) and White (45.9%). This community is disproportionately impacted by ozone pollution and experiences health impacts including asthma and cardiovascular disease. The community is burdened by high rates of poverty, barriers to education, housing burden, and unemployment. This power plant is located about 3 miles from Desert Hot Springs High School, Edward L Wenzlaff Elementary School, and a residential community.

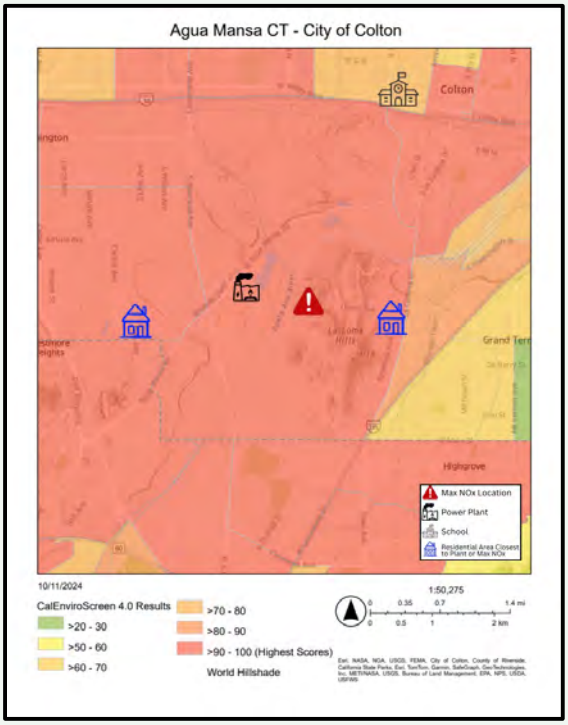


The community that experiences the most NOx emissions from this power plant is less than 2 miles northwest of the power plant. This area experiences some of the highest ozone pollution in the state and is burdened by high rates of low birth weight and cardiovascular disease. This community also faces socioeconomic barriers including poverty, unemployment, housing burden, and lack of education.

Additional Contributing Environmental Factors: Three major freeways including the 111, 10, and 62 also run through this area.

5 Agua Mansa CT

Location: Colton, San Bernardino County
Owner: City of Colton
Utility Service Territory: City of Colton
Power Plant Pollution Burden Percentile : 99



NOx levels: In an area already suffering from poor air quality, this plant adds to the burden, with high NOx emissions that threaten to push local air pollution levels past safe limits.

Census tract and socio-economic context: This power plant is located in the City of Colton, in one of the most pollution burdened communities in the state. This community is predominantly Hispanic/Latinx (75%). This community experiences some of the highest rates of pollution from ozone, particulate matter 2.5, hazardous waste, solids waste, cleanup sites, and groundwater threats. The residents of this community experience high rates of asthma, cardiovascular diseases, and low birth weight. This community also experiences socioeconomic impacts including linguistic isolation, lack of education, and poverty. Less than 1.5 miles to the northwest of this power plant is Crestmore Elementary School and a residential community.

The area that experiences the most NOx emissions from this power plant is less than half a mile to the east of the power plant, meaning the NOx emissions from this plant most impact the community it is located in near La Loma Hills.

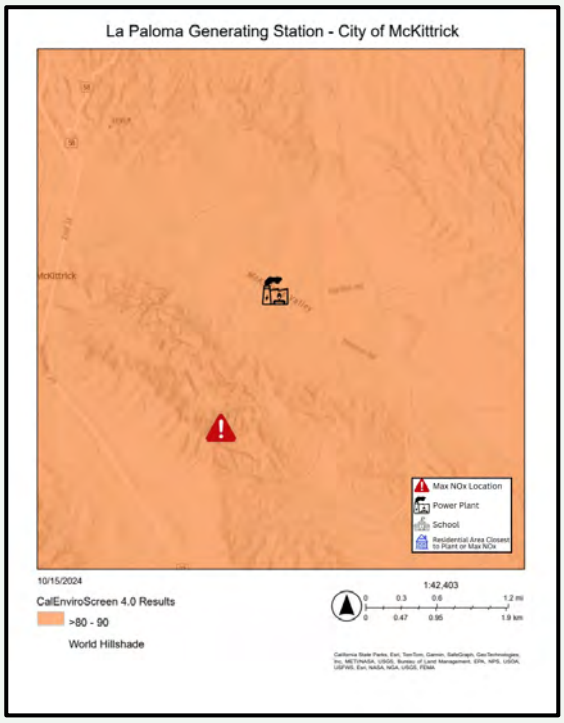
Additional Contributing Environmental Factors: This community is surrounded by freeways (215, 60, and 10 freeways) and a slough of warehouses.



6 La Paloma Generating Station

Location: McKittrick, Kern County
Owner: Multiple corporations
Utility Service Territory: Pacific Gas and Electric
Power Plant Pollution Burden Percentile : 96

NOx levels: This large plant in the Central Valley contributes significantly to NOx emissions in the region, impacting nearby rural communities. The community is 52% White and 40% Hispanic/Latinx.



Census tract and socio-economic context: It is in the 81st percentile of CalEnviroScreen and 96th percentile of pollution burden. In particular, this region experiences extreme concentrations of ozone, particulate matter 2.5, toxic releases, and pesticides. The residents of this community experience asthma, high cardiovascular disease, and low birth weight. McKittrick residents also experience socioeconomic challenges including a high poverty level (70th percentile) and unemployment rate (88th percentile).

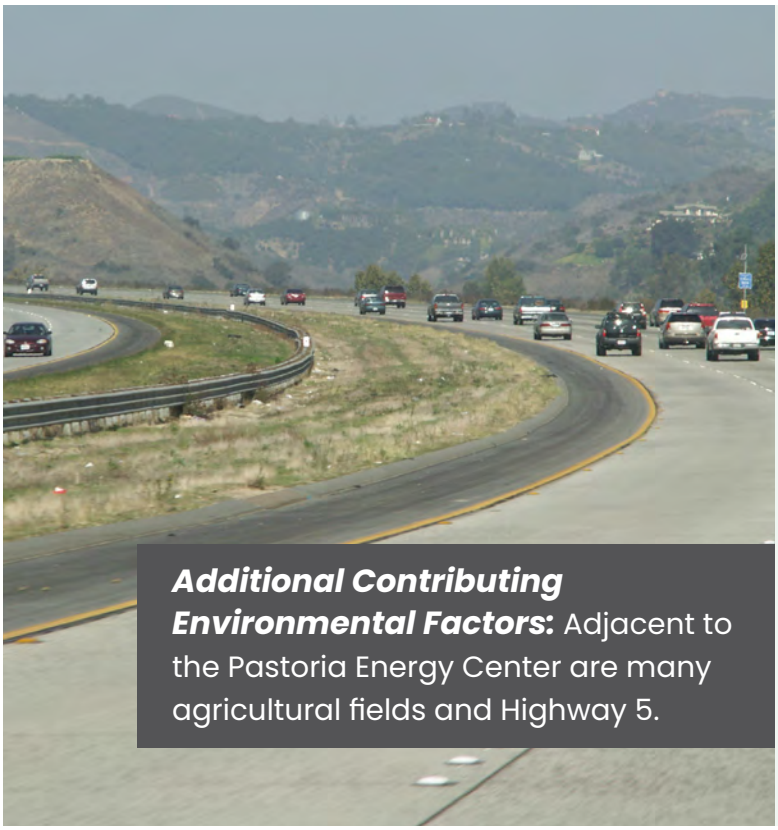
Additional Contributing Environmental Factors: The community has highways 58 and 33 cutting through the neighborhood. Within 2 miles from the Generating Station is McKittrick Elementary School and the McKittrick Valley residential neighborhood.

7 Pastoria Energy Center

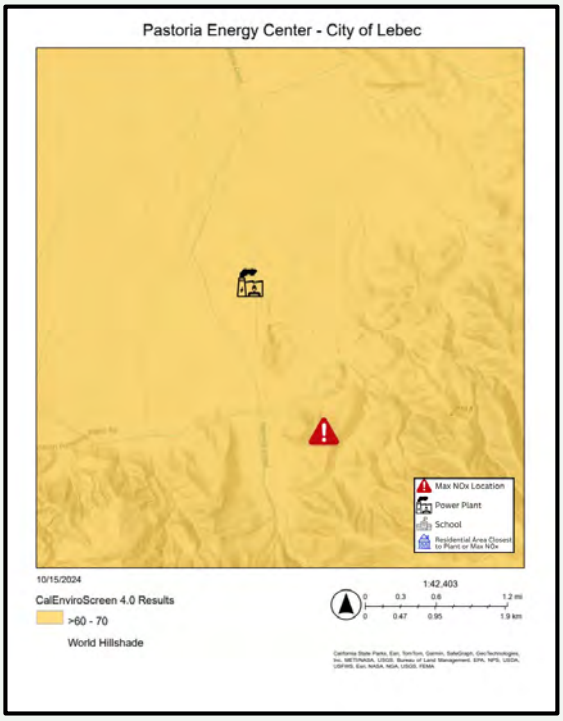
Location: Lebec, Kern County
Owner: Multiple corporations
Utility Service Territory: Southern California Edison
Power Plant Pollution Burden Percentile : 64

NOx levels: Like La Paloma, this plant operates near agricultural communities and emits large amounts of NOx, contributing to smog and respiratory issues.

Census tract and socio-economic context: Lebec is 76% White and 17% Hispanic/Latinx. It is in the 62nd percentile for CalEnviroScreen. Its residents are exposed to high levels of ozone, pesticides, and polluted drinking water. Lebec also has sensitive populations with high levels of asthma, low birth weight, and cardiovascular disease. This community also faces high levels of poverty (63rd percentile) and low levels of education (39th percentile).



Additional Contributing Environmental Factors: Adjacent to the Pastoria Energy Center are many agricultural fields and Highway 5.

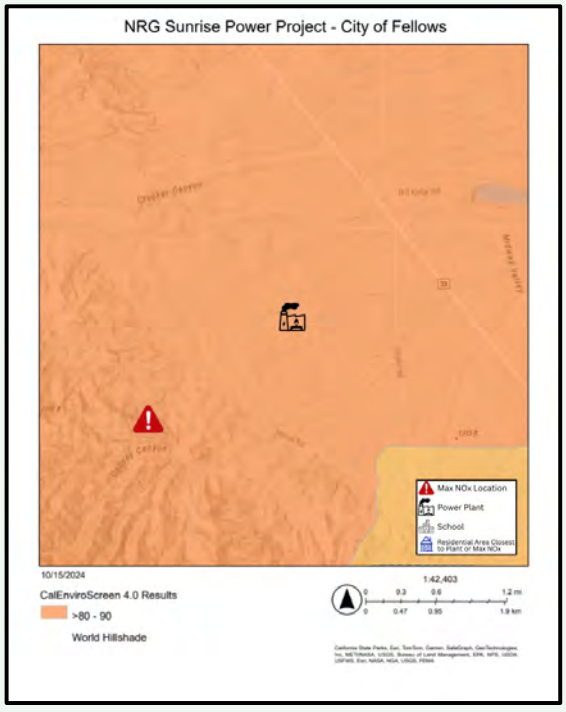


8 Sunrise Power Project

Location: Fellows, Kern County
Owner: ArcLight Capital Partners, LLC
Utility Service Territory: Pacific Gas and Electric
Power Plant Pollution Burden Percentile : 96

NOx levels: High NOx emissions during startup and shutdown phases make this plant a key target for further regulatory scrutiny and possible shutdown.

Census tract and socio-economic context: The Sunrise Power Project is located in the census-designated place of Fellows in Kern County. Fellows is a rural community and is surrounded on all sides by the Midway-Sunset Oil Field, the third-largest oil drilling field in the United States. The census tract in which Fellows is located is predominantly White (50%) and Hispanic/Latinx (45%). While Fellows itself is not a community that experiences high levels of poverty, Kern County as a whole and nearby



communities experience high levels of poverty and unemployment and face various environmental impacts such as groundwater threats and exposure to ozone pollution.

9 Tracy Combined Cycle Plant

Location: Tracy, San Joaquin County
Owner: Middle River Power
Utility Service Territory: Pacific Gas and Electric
Power Plant Pollution Burden Percentile : 53

NOx levels: This plant's NOx emissions are a serious concern for public health, particularly given its location in an area already dealing with pollution from agriculture and transportation.



Census tract and socio-economic context: The Tracy Combined Cycle Plant is located in the city of Tracy, the second most populated city in San Joaquin County. The census tract in which the Tracy Combined Cycle Plant is located is predominantly Asian American (33%), Hispanic/ Latinx (27%), and White (27%). The community is burdened by pesticides that threaten groundwater quality and hazardous waste from nearby industries. The community also experiences high rates of cardiovascular disease.

Additional Contributing Environmental Factors: The community is surrounded by three major freeways including Interstate 205, Interstate 5, and Interstate 580. Residents of Tracy have experienced environmental injustices in the past such as the 2-year burning of an illegal tire dump site which released chemicals into the local air and soil contaminating the region's groundwater in the late 1990s.

Recommendations

To address these concerns and safeguard the air quality and health of local communities, the following actions are recommended:

1. **Reduce Reliance on Dirty Gas Plants throughout California with Priority for Environmental Justice Communities:**
   - The CPUC should plan for reduced reliance on polluting gas plants.
   - The CPUC should target DACs for clean energy procurement.
   - The CAISO should plan to reduce reliance on gas plants through targeted transmission planning for local capacity areas that deliver clean energy resources to areas currently served by gas plants.
   - The CEC should plan to retire the dirtiest gas plants in DACs by 2030 as part of SB 100 Resource Planning efforts.
   - Utilities should develop clean energy alternatives to reduce their reliance on and procurement from gas plants in DACs.

2. **Improve Data Reporting:**
   - Make information accessible: Air Quality Management Districts (AQMDs) should require operators to provide basic geometry data, such as stack heights and diameters, as well as operational parameters like hourly stack temperatures and flow rates to the EPA's Clean Air Markets database. This information should be made readily and easily available to the public. Public record requests should not be required to access plant permits, data, and violation records.
   - Collect emissions data from all gas plants: The CEC and AQMDs should require reporting of NOx and other emissions for smaller plants, and plants with Selective Catalytic Reduction (SCR) systems should report SCR inlet gas temperatures.
   - Expand data reporting: The CEC and AQMDs should require reporting of NOx and other emissions during power plant startup and shutdowns when SCR systems are less effective.
   - Inform impacted communities: AQMDs should regularly provide reports to fenceline communities on gas plant emissions, including alerts on spikes in NOx, so they are aware of air quality hazards and health risks.

3. **Increase NOx Monitoring:**
   - AQMDs should require additional NOx ambient monitoring and collection of meteorological data at each plant site in order to better assess potential violations and impacts on air quality.

Legend: Local State

4. **Conduct Further Detailed Analysis:**
   - AQMDs should perform refined, site-specific analyses to determine whether past or future operations may violate their permit emissions limits.
   - For plants near multiple pollution sources, such as the Agua Mansa in San Bernardino County, AQMDs should investigate cumulative impacts from nearby plants and emissions sources with reporting and emissions data made easily available to the public.
   - AQMDs should model NOx emissions at all gas power plants in California in order to fully understand their impacts on nearby communities.
   - AQMDs should identify and conduct in depth analysis on additional sources of NOx beyond gas-fired power plants.

5. **Broaden Impact Analysis:**
   - AQMDs should conduct future analyses that expand beyond just NOx emissions to include assessments of other pollutants (e.g., ammonia, formaldehyde, and PM2.5). These analyses will provide a fuller picture of the overall environmental and health impacts of gas plants on surrounding communities.

Conclusion

This report demonstrates the detrimental impacts of NOx emissions from gas-fired power plants on the health and air quality of environmental justice communities. NOx emissions, paired with other poisonous and carcinogenic pollutants released from gas-fired power plants, contribute to increasing numbers of hospital visits for those living in close proximity, in addition to chronic health impacts such as asthma and other respiratory issues. The public health hazards from gas plant emissions are even more threatening for children, pregnant people, and the elderly. We need to retire these polluting power plants for the health of local communities and our global climate.

Environmental justice communities must be prioritized in California's transition away from fossil fuels and should be first in line to benefit from a clean energy future. In the context of this report, this means gas plants located in Disadvantaged Communities should be shut down first. California decision-makers must continue to work in collaboration with frontline communities and environmental justice advocates to realize our commitments to 100% clean energy by 2045, greenhouse gas reduction goals, and Clean Air Act standards.

Citations

1 U.S. EPA, Current Nonattainment Counties for All Criteria Pollutants (Sept. 30, 2024), available at https://www3.epa.gov/airquality/greenbook/ancl.html

2 Cal. Off. of Env't Health Hazard Assessment, CalEnviroScreen 4.0 (Oct. 13, 2021), available at https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

3 https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB205

4 Los Angeles Times, California just can't kick its coastal gas plant addiction (June 22, 2023), available at https://www.latimes.com/environment/newsletter/2023-06-22/california-just-cant-kick-its-coastal-gas-plant-addiction-boiling-point

5 California Legislative Information, SB-100 California Renewables Portfolio Standard Program: emissions of greenhouse gasses. https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

6 California Energy Commission, SB 100 Joint Agency Report. https://www.energy.ca.gov/sb100

7 https://www.epa.gov/no2-pollution/basic-information-about-no2

8 The Sunrise Power Project was modeled using two estimated stack heights: 40 meters and 65 meters. Publicly available data on actual stack height was not available

9 The Sunrise Power Project was modeled using two estimated stack heights: 40 meters and 65 meters. Publicly available data on actual stack height was not available

10 https://campd.epa.gov/

11 This and following pollution burden percentiles refer to the census tract that the gas power plant is located in and is based on data from CalEnviroScreen

REGENERATE CALIFORNIA

POWER UP CLEAN ENERGY | POWER DOWN DIRTY GAS

CEJA.ORG/REGENERATE-CALIFORNIA

Comment No. P95

April 7, 2025
Benjamin Harris, Senior Staff Attorney, Los Angeles Waterkeeper
David Pettit, Senior Attorney, Center for Biological Diversity
Andrea Vega, Southern California Senior Organizer, Food & Water Watch
Jay Parepally, Legal Fellow, Communities for a Better Environment
Andrea Leon-Grossman, Deputy Program Director—West, Vote Solar
Katherine Ramsey, Senior Attorney, Sierra Club; Nihal Shrinath, Staff Attorney; Sierra Club; Julia Dowell, Senior Campaign Organizer, Sierra Club
Heena Singh, Energy Justice Manager, California Environmental Justice Alliance; Tyler Valdes, Interim Energy Justice Director, California Environmental Justice Alliance
Lucia Marquez, Associate Policy Director, Central Coast Alliance United for a Sustainable Economy

Response to Comment No. P95-1

In this introductory comment, the commenters introduce themselves and note the comments were prepared with the assistance of PSE Healthy Energy's (PSE's) air quality and energy capacity experts. As this comment is introducing Exhibit 1, PSE's "Assessment of LADWP's Draft Environmental Impact Report for Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project" (PSE Assessment or PSE Report), the commenters are referred to the responses to each detailed comment for the PSE Assessment. Specific comments in the exhibit are included in Comment Nos. P95-41 through P95-94 and addressed in corresponding **Response to Comment Nos. P95-41 through P95-94.** The comment does not address the adequacy of the Draft EIR, and no further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P95-2

The commenters provide a summary of the comments provided in the comment letter and state the CEQA document must be recirculated as a Program Draft EIR or a revised Draft EIR. The commenters suggest the recirculated document must evaluate the broader LADWP in-basin generation plan for hydrogen combustion and associated infrastructure and supply; evaluate environmental impacts against a baseline that accounts for the mandated closure of the once-through cooling (OTC) Units 1 and 2 at Scattergood; provide details on capacity needs, reliability objectives, and transportation and storage of hydrogen; and evaluate the air quality and greenhouse gas (GHG) emissions based on these additional details. As this comment is introducing the topics to be discussed in the comment letter, the commenters are referred to the responses to each detailed comment below. The commenter's specific concerns are included in the subsequent **Comment Nos. P95-5** through **P95-42**. Refer to **Responses to Comments Nos. P95-5 through P95-42** for specific responses to such concerns. No further response is required.

Response to Comment No. P95-3

The commenters urge LADWP and the City to publicly release and incorporate public comment on the National Renewable Energy Laboratory (NREL)'s Scattergood Modernization Project Alternatives: Summary of Findings (NREL Alternatives Report) and LADWP's 2022 Power Strategic Long-Term Resource Plan (SLTRP, now known as LA100 Plan), specifically on the no combustion scenario, before proceeding with the project to adequately consider the environmental impacts as mandated by CEQA.

The commenters are referred to **Topical Response No. 4 – Alternatives,** which addresses public comments stating that the Draft EIR should be informed by the NREL Scattergood Modernization

Project Alternatives: Summary of Findings February 2025 report and also discusses considerations of no combustion alternatives for the project. Further, as stated in Section 3.2, Project Background, of the Draft EIR, the proposed project has been identified as an integral component of LADWP's SLTRP development, which involved input from the SLTRP Advisory Group that was composed of over 45 stakeholders representing neighborhood councils, academia, community organizations, existing customers, and city and local government. Though the strategy to achieve a carbon-free energy system relies primarily on renewable solar, wind, and geothermal generation resources as well as large-capacity energy storage facilities, the SLTRP identifies the need to maintain the resilience and reliability of the City's electrical power grid through combustion sources during and after the transition to a carbon-free system to ensure continued availability of firm local generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-4

This comment is comprised of statements of law purporting to summarize the requirements of CEQA. The comment does not address the environmental effects of the proposed project; therefore, no response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-5

The commenters state that the Draft EIR improperly piecemeals the environmental impacts of the proposed project by (i) excluding consideration of reasonably foreseeable cumulative impacts from future related projects from other planned hydrogen fueling actions for LADWP's other in-basin power plants (i.e., Valley Generating Station, Harbor Generating Station, and Haynes Generating Station) and infrastructure in LADWP's energy system and (ii) ignores the environmental issues associated from the production, storage, and transportation of hydrogen, including emissions control of hydrogen combustion.

As discussed in **Response to Comment No. P95-4**, the Draft EIR has been prepared in conformance with CEQA statutes and its implementing guidelines.

CEQA does not require the EIR to evaluate the environmental impacts of other, separate projects occurring at other LADWP facilities as part of this project-level EIR. The project being proposed for consideration by the LADWP Board in connection with the EIR is limited to the Scattergood project, and the Board will not simultaneously consider any other upgrades at other LADWP facilities. As stated in **Topical Response No. 2 – Hydrogen**, there is not sufficient information available about the potential development of other hydrogen-fueled generating units at other LADWP in-basin generating stations to support an adequate analysis of potential impacts. Further, potential future projects that may occur at Harbor Generating Station, Haynes Generating Station, or Valley Generating Station have separate, independent utility and will be subject to separate CEQA review once sufficient details are known to allow analysis, and the proposed project has no bearing on whether or not they may go forward.

The EIR includes a comprehensive discussion of the combined, significant environmental effects of the proposed project and other past, present, and reasonably foreseeable projects in the same geographic area. The EIR complies with CEQA Guidelines Section 15130, which requires that an EIR discuss cumulative impacts of a project when the project's individually limited incremental effect, when measured along with other approved, proposed, or reasonably foreseeable future projects, may contribute to a significant combined impact. Section 4.0.2.7, Cumulative Impacts

Analysis, of the Draft EIR, identifies the approved, proposed, or reasonably foreseeable future projects in the vicinity of the project site which may contribute to a cumulatively considerable impact.

With respect to environmental impacts associated with the production, storage, and transportation of hydrogen, as discussed in **Topical Response No. 2 – Hydrogen** and in Section 1.3.3 of the Chapter 1, Executive Summary, of the Draft EIR, the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel combined-cycle generation system (CCGS) when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how it would be stored, and how it would be delivered to Scattergood. While truck delivery of hydrogen to Scattergood is unlikely given the large volume of hydrogen that would be required during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public. As such, the hydrogen infrastructure will be analyzed in a separate environmental review and approval process by the appropriate lead agency when the necessary information to support an adequate analysis of potential environmental impacts is available. LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the proposed project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the impacts related to the combustion of such a fuel mixture are analyzed in the Draft EIR.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-6

The commenters state the EIR fails to consider system-wide impacts and other planned hydrogen combustion conversions at other LADWP plants and infrastructure. The commenters refer to page 4 of the proposed project's Initial Study, which states, "the LADWP in-basin combustion-turbine generation system, including Scattergood and other generating stations, would be retained through a conversion to renewable hydrogen fuel," and LADWP's SLTRP (now called LA100 Plan) to suggest the other in-basin generating stations would undergo similar hydrogen conversions. The commenters also state that the proposed project is an integral part of "considerable investments" in a system-wide change in power generation in LADWP's jurisdiction. Therefore, the other in-basin generating stations would need to be considered in this EIR.

Commenters are correct that Los Angeles is in a period of significant transition and modernization with regard to regional energy production and consumption. LADWP is a large public utility, and at any given time may have dozens of potential projects underway or under consideration systemwide. The fact that two or more projects are occurring at the same time does not translate to a requirement that they are the "same project" or must be analyzed in a single CEQA document. In fact, it is appropriate to analyze each project separately as long as it has independent utility, meaning that it would still be built and function on its own without the other proposed projects. Here, the Scattergood Modernization Project has independent utility and would proceed whether

or not other projects in the region move forward; accordingly, analysis of this project in a single CEQA document is appropriate.

As stated in Chapter 3, Project Description, of the Draft EIR, while LADWP is relying primarily on renewable solar, wind, and geothermal generation resources as well as large-capacity energy storage facilities, the continued availability of firm local generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area has been identified in the SLTRP as necessary to maintain the resilience and reliability of the City's electrical power grid during and after the transition to a carbon-free system. Additionally, as stated further on page 4 of the proposed project's Initial Study and refined in Chapter 3, Project Description, of the Draft EIR, Scattergood has been identified as the most immediate and instrumental location in relation to the requirement for firm generation capacity due to the electrification of Los Angeles International Airport (LAX), the implementation of increased wastewater treatment capabilities at the City's Hyperion Water Reclamation Plant (WRP) anticipated to add at least 150 MW of load, and anticipated growth in demand largely caused by electrification in the western areas of the City that Scattergood serves.

As discussed in **Response to Comment P95-5**, above, CEQA does not require the EIR to evaluate the environmental impacts of other, separate projects occurring at other LADWP facilities as part of this project-level EIR. The project being proposed for consideration by the LADWP Board in connection with the EIR is limited to the Scattergood project, and the Board will not simultaneously consider any other upgrades at other LADWP facilities. As stated in **Topical Response No. 2 – Hydrogen**, there is not sufficient information available about the potential development of other hydrogen-fueled generating units at other LADWP in-basin generating stations to support an adequate analysis of potential impacts. Potential future projects that may occur at Harbor Generating Station, Haynes Generating Station, or Valley Generating Station have separate, independent utility and will be subject to separate CEQA review once sufficient details are known to allow analysis, and the proposed project has no bearing on whether or not they may go forward.

The EIR includes a comprehensive discussion of the combined, significant environmental effects of the proposed project and other past, present, and reasonably foreseeable projects in the same geographic area. The EIR complies with CEQA Guidelines Section 15130, which requires that an EIR discuss cumulative impacts of a project when the project's individually limited incremental effect, when measured along with other approved, proposed, or reasonably foreseeable future projects, may contribute to a significant combined impact. Section 4.0.2.7, Cumulative Impacts Analysis, of the Draft EIR, identifies the approved, proposed, or reasonably foreseeable future projects in the vicinity of the project site which may contribute to a cumulatively considerable impact.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-7

The commenters state the EIR should include analysis of the potential environmental impacts associated with building the hydrogen infrastructure needed to supply hydrogen to Scattergood because the proposed project does not have independent utility from the hydrogen infrastructure that is needed to operate the units. The commenters also suggest the physical location of proposed hydrogen piping infrastructure to connect Scattergood and other LADWP facilities is being advanced, and therefore, should be considered as part of the cumulative analysis. Finally, the commenters assert that the proposed project is being funded in part by the entity managing

the overall hydrogen transition in the state, and therefore, should be responsible for assessing environmental impacts related to the hydrogen system buildout.

As noted by the commenters, the proposed project can operate using 100 percent natural gas. As indicated in Chapter 3, Project Description, of the Draft EIR, this may be the circumstance during the initial phases of operation of the proposed CCGS in the case of limited availability of hydrogen fuel as the hydrogen infrastructure is developed and undergoes its respective environmental review. Therefore, the proposed project has independent utility from the hydrogen infrastructure associated with production, storage, and transport as it would be needed to meet electricity demand regardless of its fuel source, and may operate without any supply of hydrogen, if necessary. The Draft EIR therefore analyzed the impacts related to the combustion of 100 percent natural gas. Furthermore, the EIR concluded that these impacts would be less than significant other than those related to the CCGS commissioning phase, which would be significant and unavoidable regardless of the fuel mixture (i.e., a hydrogen/natural gas fuel blend or 100 percent natural gas).

That said, it is the intention of LADWP to provide the capability to utilize hydrogen fuel at Scattergood. However, the details of how hydrogen will be sourced, stored, and transported are unknown at this point. The commenters are referred to **Response to Comment P95-5**, which states that while it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. The EIR need only analyze project impacts that are reasonably foreseeable. Here, hydrogen could be delivered to the site by various means that are unknown at this time. Therefore, the EIR cannot accurately evaluate potential impacts of hydrogen infrastructure. The hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available.

The Southern California Gas Company (SoCalGas) Angeles Link Project suggested by the commenters is still currently in the feasibility and preliminary design phases. The Angeles Link project has filed an application with the California Public Utilities Commission to advance to Phase 2 which includes selecting a preferred route, additional engineering and design work, and expanding stakeholder engagement.[58] At the time of drafting, there is no certainty as to whether the Angeles Link project will actually go forward, how it will be routed, and whether it could feasibly provide hydrogen to Scattergood. To analyze the impacts of the potential source of hydrogen would require analysis of every proposed route and design, which would be of little informational value to the public, particularly in light of the fact that there is no reason to believe that this will actually be the source of hydrogen for Scattergood.

As stated in Section 3.2.2, Green Hydrogen, of the Draft EIR, the proposed project is one of the U.S. Department of Energy (DOE) and Alliance for Renewable Clean Hydrogen Energy Systems' (ARCHES) funding recipients. Pursuant to the National Environmental Policy Act (NEPA), DOE has initiated the process to prepare an Environmental Impact Statement (EIS) to evaluate the potential impacts associated with the types of hydrogen infrastructure and technologies supported by the California Hydrogen Hub.[59] A cumulative impact evaluation including the California Hydrogen Hub funding recipients and associated projects would be entirely speculative and would

[58] SoCalGas. "Angeles Link: Shaping the future with clean renewable hydrogen." Available at: https://www.socalgas.com/sustainability/innovation-center/angeles-link. Accessed August 2025.

[59] U.S. Department of Energy, Office of Clean Energy Demonstrations. "California Hydrogen Hub (ARCHES) EIS Virtual Meeting Space. Available at: https://ocedarcheseis.com/. Accessed August 2025.

therefore be of little to no informational value to decisionmakers and the public. Similar to the Angeles Link, California Hydrogen Hub projects are generally in the feasibility and preliminary design phases. Therefore, the necessary information to support an adequate analysis of potential impacts is not available, and the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, in accordance with Section 15130(b)(4), would not be possible. As such, the EIR is not piecemealing foreseeable cumulative impacts under CEQA.

Finally, nothing in the analysis of impacts related to hazardous waste indicates that LADWP declined to analyze impacts related to the future hydrogen supply system based on the proposed project's incremental use of hydrogen. As discussed in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, based on compliance with existing regulations and industry standards, the incremental potential use of hydrogen at Scattergood in relation to the scale of the regional hydrogen supply system and other users is not anticipated to make a cumulatively considerable contribution related to hazards from the release of hydrogen. The fact that sufficient information is known about on-site compliance with regulatory standards to allow analysis of potential hazards impacts related to operational activities and their cumulative effects does not support the commenters' suggestion that LADWP was also required to analyze impacts related to development of the regional hydrogen supply system. LADWP did not claim that the project EIR need not consider those impacts based on the proposed project's incremental use of hydrogen supplied by that system. Rather, as stated above and in **Topical Response No. 2 – Hydrogen**, sufficient detail about the regional supply system is not available to allow a meaningful analysis as part of the proposed project EIR.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-8

The commenters state the Draft EIR does not consider the potential greenhouse gas emissions and human health impacts if a reliable supply of hydrogen does not materialize and the project must run on 100 percent natural gas. LADWP intends to provide the capability to utilize hydrogen fuel at Scattergood over time, and that is what the project description reflects. However, as indicated in Chapter 3, Project Description, of the Draft EIR, the impacts related to the combustion of 100 percent natural gas are also analyzed in the EIR based on a conservative assumption that this may be the circumstance during the initial phases of operation of the proposed CCGS, in case of limited availability of hydrogen fuel. The analysis of air quality and related public health impacts and GHG emissions considers the range of fuel-mixture (i.e., from a fuel blend with 30 percent hydrogen to 100 percent natural gas), which represents the full range of potential impacts related to combustion. The commenters are directed to Section 4.2.4, Project Impacts, of the Draft EIR for a detailed discussion of the air quality and health risk impacts associated with 100 percent natural gas fuel use, and Section 4.3.4, Project Impacts, of the Draft EIR for a detailed discussion of the GHG emissions associated with 100 percent natural gas fuel use. For a detailed response on the quantitative approach and the performance based approach of GHG emissions, the commenters are referred to **Response to Comment No. A3-6**. As the commenters also cite Comment Nos. 95-62 and 95-64 as bracketed in the PSE Report, the commenters are referred to corresponding **Response to Comment Nos. P95-62 and P95-64** for specific responses. No revisions to the Draft EIR are required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Further, it is worth noting that the 2024 Institute for Energy Economic and Financial Analysis report and BloombergNEF report cited by commenters, which note several uncertainties about the current capabilities for production and supply of hydrogen, support LADWP's conclusion,

discussed in detail in **Topical Response No. 2 – Hydrogen**, that the impacts related to hydrogen supply are currently too speculative to allow meaningful analysis as part of this EIR.

Response to Comment No. P95-9

The commenters state the EIR should be recirculated as a programmatic EIR which includes other basin-wide fuel replacement and generation projects based on the following criteria – the four generating stations are: in the same geographic area, logical parts in the chain of similar programmatic actions contemplated under the SLTRP, and undertaken through similar regulatory authority with similar environmental impacts to nearby communities and region-wide water use and infrastructure.

The project described in the EIR and proposed for consideration by the LADWP Board is limited to Scattergood. A program EIR allows an agency to review in one document a series of actions that can be characterized as one program, including those contemplated in connection with "plans, or other general criteria to govern the conduct of a continuing program..." (Guidelines, § 15168(a)(1)-(4).) It is up to the lead agency to decide whether to prepare a program EIR for a series of actions, or whether to consider them on a project-by-project basis.

A primary objective of the proposed project is to provide generation capacity to support grid stability and energy demand in the Scattergood service area, which includes LAX, Hyperion WRP, and the western districts of the City of Los Angeles, as discussed in Section 3.4, Project Objectives, of the Draft EIR. This primary objective gives the proposed project independent utility from other contemplated upgrades to the in-basin network system.

LADWP's electricity imports predominantly enter the Los Angeles basin from the north. Three of its four in-basin generating stations are located on the coast in the southern and western boundaries of the service territory. Transmission was built out from these generating stations, forming transmission "cul-de-sacs" that provide dispatchable electricity from the south. Because of potential disruptions to out-of-basin renewable energy sources, Scattergood has been identified as the most immediate and instrumental location in relation to the requirement for firm generation capacity due to the electrification of LAX, the implementation of increased wastewater treatment capabilities at Hyperion WRP, and anticipated growth in demand in the western areas of the City that Scattergood serves, largely caused by electrification (i.e., the conversion of various functions currently powered by the combustion of fossil fuels, including cooking, space heating, water heating, and the transportation sector, to electricity). Thus, the need for upgrades to the proposed project exists regardless of whether other facilities in LADWP's in-basin network are also contemplated for upgrades. Therefore, regardless of whether this project could be considered as part of a broader programmatic EIR, it is appropriately subject to project-level review under CEQA in its own EIR.

With regard to the EIR's consideration of cumulative impacts, see **Response to Comment No. P95-5**. The EIR includes a thorough analysis of the cumulative impacts of other reasonably foreseeable projects in the geographic area. Conversion of other in-basin facilities to hydrogen was not considered because the details of those potential projects are not currently known and the resulting environmental impacts would be speculative.

To the extent that the commenters are suggesting that the EIR should be recirculated, none of the information contained in this comment triggers recirculation under CEQA Guidelines 15088.5. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

The commenters also identify three categories of environmental impacts related to hydrogen infrastructure needs that the comment claims must be fully evaluated. As this section is introducing the three categories to be discussed in the subsequent section, the commenters are referred to the responses to each detailed comment below. The commenter's specific concerns are included in the subsequent **Comment Nos. P95-10** through **P95-12**. Refer to **Responses to Comments Nos. P95-10 through P95-12** for specific responses to such concerns. No further response is required.

Response to Comment No. P95-10

The commenters assert that a programmatic EIR or recirculated EIR must be prepared to analyze the environmental impacts of hydrogen sourcing and production, including impacts related to energy use for water extraction, purification, and conveyance.

The commenters are referred to **Topical Response No. 2 – Hydrogen**, which addresses hydrogen production. While the proposed rapid-response CCGS would be hydrogen-ready, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the proposed project. The proposed project would not produce hydrogen or require an onsite water demand to produce hydrogen. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how production would occur, and how it would be delivered to Scattergood. Importantly, hydrogen production is not planned to occur at Scattergood nor is it currently known where hydrogen could be sourced for the project, nor how it would be produced, nor can it be predicted with any level of accuracy the quantities of water or hydrogen that will be required. Section 3.2.2, Green Hydrogen, of the Draft EIR, defines green hydrogen as a carbon-free fuel that is typically produced through a process called electrolysis, in which water is split into hydrogen and oxygen using renewable electricity. There are various types of water input that can be used for producing green hydrogen, such as recycled wastewater. All of these methods require different amounts of water to produce hydrogen. It would therefore be speculative to analyze the environmental impacts of supplying water relying on the estimates cited by commenters in the Sierra Club technical study and brief because those are based on only one possible method of hydrogen production that may or may not be used to supply Scattergood in the future.

No revisions to the Draft EIR are required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-11

The commenters assert that a programmatic EIR or recirculated EIR must be prepared to consider the cumulative impacts from storing and transporting hydrogen gas to Scattergood, including the GHG emissions and energy use associated with transportation and storage-related leakage. The commenters are referred to **Topical Response No. 2 – Hydrogen**, which addresses hydrogen transportation and storage. As specified in Section 3.2.2, Green Hydrogen, of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured then transported to the project site are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how it would be stored, and how it would be delivered to Scattergood. While truck delivery of hydrogen to Scattergood is unlikely given the

large volume of hydrogen that would be required during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public.

Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project impacts related to the on-site hydrogen system during operation and the issue of leakage were considered in the EIR. Specifically, as detailed in Section 4.4, Hazards and Hazardous Materials, of the Draft EIR and Topical Response No. 2 – Hydrogen, the project's on-site hydrogen system would be designed, constructed, protected, maintained, and operated in accordance with regulatory requirements for hydrogen piping and pipelines pursuant to National Fire Protection Association (NFPA) 2–Hydrogen Technologies Code and American Society of Mechanical Engineers (ASME) B31.12–Hydrogen Piping and Pipelines and standards outlined in Compressed Gas Association (CGA) G-5.4–Standard for Hydrogen Piping Systems at User Locations. The project would implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed, installed, inspected, and tested in accordance with the pressure piping and gas safety requirements. With respect to the commenters' concern about hydrogen leakage and potential GHG effects, the project's hydrogen pipelines would be designed, constructed, operated, and maintained to account for the hydrogen embrittlement of carbon and low alloy steels and other materials. The project's hydrogen system would undergo extensive testing and inspection prior to operation and after completion of examinations and repairs to ensure hydrogen leaks would not occur. Tests would include, but not be limited to, hydrostatic leak tests, pneumatic leak tests, and sensitive leak tests. In addition, hydrogen gas and fire detectors and sensors would be installed to detect gas leakages, sound alarms, and/or activate shutdown if needed. Therefore, through compliance with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards outlined in CGA G-5.4. the project's on-site hydrogen operational activities would not create significant hydrogen leakage that has the potential to indirectly increase GHGs in the atmosphere.

Additionally, as the commenters cite Comment No. 95-63 as bracketed in the PSE Report, the commenters are referred to corresponding **Response to Comment No. P95-63** for a specific response.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-12

The commenters assert that a programmatic EIR or recirculated EIR must be prepared to analyze cumulative impacts of new water infrastructure associated with hydrogen purification and gas production. The commenters are directed to **Response to Comment No. P95-10**, which states that LADWP would be a purchaser of hydrogen for the proposed project and would not produce hydrogen or require an onsite water demand to produce hydrogen. Therefore, there are currently no plans to recycle or treat water used for hydrogen production at Hyperion WRP as suggested by the commenter. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how production would occur, and how it would be delivered to Scattergood. As such, the hydrogen infrastructure, including any water infrastructure needed to support the production or supply of

hydrogen, will be analyzed in a separate environmental review and approval process by the appropriate lead agency when the necessary information to support an adequate analysis of potential environmental impacts is available. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-13

The commenters generally state the Draft EIR fails to provide an accurate and finite project description including an accurate description of the project's objective and how the project would meet these objectives. In accordance with CEQA Guidelines Section 15124(b), the objectives of the proposed project described under Section 3.4, Project Objectives, of the Draft EIR, include the underlying purpose of the project and discuss the project's benefits. The objectives of the proposed project are to:

- Provide resilience to maintain the reliability of the LADWP electrical power system to help meet peaks in demand that exceed available renewable generation resources and energy storage capacity as well as demand during infrequent and relatively short-term, but major, interruptions in the primary carbon-free generation and/or transmission system caused by emergency circumstances.
- Establish a generation source that is always available, dispatchable, and local relative to the LADWP service area.
- Provide generation capacity to support grid stability and energy demand in the Scattergood service area, which includes Los Angeles International Airport, Hyperion Water Reclamation Plant, and the western districts of the City of Los Angeles.
- Reduce the emissions of greenhouse gases from power generation consistent with the LADWP transition to a carbon-free electrical power system.

The project would satisfy these objectives, which are also consistent with the broader aims of LADWP regarding future energy planning, development, and operations to maintain the reliability and resilience of the City's electrical power grid during and after the transition to a carbon-free system, as reflected in the SLTRP. In addition, these objectives are sufficiently broad to have allowed LADWP to develop a reasonable range of alternatives to evaluate in the EIR, pursuant to CEQA Guidelines Section 15126.6(a). No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-14

The commenters state the project description fails to identify a finite reliability objective for the project. The comment acknowledges that an objective of the project is to maintain grid reliability during peak demand periods and under emergency circumstances but argues that "CEQA requires that the Draft EIR specify a finite reliability need because that is the metric against which the project and potential alternatives must be measured."

The commenters are referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for a detailed discussion on grid reliability standards and calculations used for the proposed project. The project is designed to improve reliability during peak demand and emergency conditions, and the EIR is not required to provide a quantitative threshold for reliability.

As described therein, while LADWP accelerated its shift toward a more sustainable future, the foundational responsibilities of reliability, affordability, and safety for its customers remain

unchanged. The proposed project was identified to address three converging factors which align with the objectives of the proposed project (Section 3.4 of the Draft EIR):

- Retirement of Scattergood Units 1 and 2, effectively mandated by the OTC policy, which will create an energy capacity deficit due to transmission bottlenecks in LADWP's West Los Angeles Service Area (Westside).
- Electric-grid reliability needs, with specific risks being accelerated by climate change in the form of heat waves, wildfires, and unprecedented storms.
- Regulatory compliance, as required by the North American Electric Reliability Corporation (NERC) and the Western Electricity Coordinating Council (WECC) standards.

The proposed project would have the capability to deliver firm, dispatchable capacity at a specific location within the LADWP system, the Westside, which is vulnerable to stressed grid conditions due to transmission constraints. Additionally, the Westside service area holds particular importance since it includes both LAX and the Hyperion WRP. The electrical system serving the Westside faces unique limitations that affect how electricity is reliably delivered to customers. These include meeting the fluctuating electricity demand on the Westside, transmission limits on imported power to the Westside, using local power generation to cover the difference when the Westside's electricity demand exceeds the maximum power that can be imported, and aging local generation and reliability planning challenges.

As also described in Topical Response No. 1, LADWP's electric system must be designed to withstand the loss of its largest local generator without causing a blackout, a condition known as an "N–1 outage." However, in a scenario where the Westside load exceeds import capacity, while facing reduced local generation due to retirements or outages, there will not be enough power available to meet demand. To maintain grid stability and avoid widespread power failures in such a scenario, it may be necessary to implement controlled reductions in electricity usage, technically referred to as "load shedding" and commonly known as "rolling blackouts," in accordance with regulatory standards.

Another factor that contributes to determining the reliability objective is complying with regulatory standards set forth by NERC and WECC. LADWP's 2021 Local Capacity Technical (LCT) analysis report evaluated the relationship between LADWP's West Los Angeles Service Area load, transmission capacity constraints, and Scattergood generation. The performance criteria and methodology were coordinated with the California Independent System Operator (CAISO) to use a similar metric as was used as part of CAISO's Local Capacity Studies, which also analyze critical system events in accordance with NERC Transmission Planning (TPL)-001 reliability standard. The LCT determined that due to the projected load growth on the Westside, where the aggregate system peak demands for the LADWP service area were between 6,895 MW to 7,239 MW, there would be a generation capacity deficit at Scattergood ranging from 254 MW to 350 MW, depending on available transmission capacity serving the Westside and the forecasted load. Without adequate Scattergood generation, NERC reliability criteria would require planned and controlled customer outages at strategic locations to avoid risk of uncontrolled widespread blackouts.

The proposed project was sized at 346 MW because multiple studies have indicated the need for this additional capacity at Scattergood, assuming the retirement of Units 1 and 2, based on current and future projections of both Westside electricity demand and the transmission capacity serving the Westside. In addition to normal projected growth in demand, there are also numerous large-load interconnection requests to LADWP totaling several hundred megawatts on the Westside. The 346 MW capacity of the proposed project was determined to provide reliability and flexibility under the uncertainty of load growth, unforeseen project delays, and the potential of transmission and generation asset outages.

Several transmission projects are either underway or planned to improve the Westside's capacity to import renewable energy. These upgrades are expected to reduce reliance on Scattergood, limiting its operation to specific situations—such as during stressed grid conditions or when renewable resources are unavailable—based on power system reliability needs as outlined in the project objectives (see Section 3.4 of the Draft EIR).The future generation from the proposed project depends heavily on several key assumptions, including the advancement of renewable energy deployment, the timely completion of numerous transmission projects, electricity demand, unscheduled generator and transmission outages, and other related factors. Despite these planned improvements, NREL's independent analysis following the LA100 Study confirmed that no fundamental changes to the LADWP power system have altered their conclusion that new, dispatchable capacity is needed to replace the retiring Scattergood Units 1 and 2.

No revisions to the Draft EIR are required. Accordingly, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-15

The commenters state the project description fails to define the project's expected capacity factor, or how often LADWP expects to operate the proposed project, and point to the project application to SCAQMD (included as the commenters' Exhibit 2; see Comment No. P95-95), which does not limit the duration of use and could theoretically allow 24/7 operation. Based on the implementation of planned clean energy projects, including generation, transmission, and energy conservation, LADWP's SLTRP forecasts that the capacity factor for the proposed project would be in the single digits. The commenters also express concern about emissions associated with startups and shutdowns and state that gas plants release their maximum emissions during startups and shutdowns when pollution controls are either not operational or ineffective, according to a report prepared by Regenerate California (included as the commenters' Exhibit 3; see Comment No. P95-96). The commenters state that the Draft EIR does not estimate the annual number of startups and shutdowns for the project and omitted a critical amount of emissions.

As discussed in Section 4.2.4, Project Impacts, of the Draft EIR, the operational air quality and health risk assessment analyses are based on the assumption that the proposed project will have one cold start per day, one shutdown per day, and maximum operation for the remainder of the day, 365 days a year. These assumptions are extremely conservative to allow for analysis of the maximum possible emissions and associated health risk impacts, which are therefore overstated. These assumptions are also consistent with LADWP's SCAQMD permit application cited by commenters, which considers a maximum allowable operational scenario that would ensure unlikely worst-case emissions are analyzed for the project, even though the proposed project is anticipated to be operated less frequently, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the proposed project would be used during relatively short-term periods when renewable generation sources and/or transmission assets become unavailable due to emergency circumstances. In this manner, the CCGS would provide local generation capability that is crucial to maintaining the resilience and reliability of the LADWP power system and prevent the potential disruptions of the grid.

With regard to the analysis of GHG emissions, the commenters are referred to **Response to Comment No. A3-6** which addresses capacity factors for the project. As discussed therein, electric grids are complex and systems operate based on variations in electrical demand. Generators within an interconnected system are dispatched based on an interplay of economic factors (e.g., fuel costs, startup costs), operational constraints (e.g., ramp rates, minimum run times), grid reliability requirements, and others. As reflected in Response to Comment No. A3-6, annual capacity factor calculations were completed for each vendor to determine increases from

existing conditions for CO_2e emissions and potential exceedances of the SCAQMD CEQA 10,000 MT/yr GHG threshold. For the proposed project to operate and not exceed the CEQA threshold of significance, annual capacity factors ranged from 7.85 percent to 9.85 percent. Additionally, the proposed project could operate between 7.09 percent to 8.94 percent annual capacity factor and not result in any increase in CO_2e emissions. This is consistent with the LA100 Study, where the future capacity factors of in-basin generating stations were forecasted to be in the single digits due to increased renewable imports onto the system as LADWP transitions towards 100 percent clean energy.

As discussed on page 3-10 of Section 4.3, Greenhouse Gas Emissions, of the Draft EIR, when addressing the future use of in-basin generation units:

> Historically, these in-basin generation units, including Scattergood, have provided a substantial proportion of the City's energy on a daily and annual basis. However, based on the projected expansion of renewable resources in the LADWP system, the proposed project CCGS would be operated less frequently, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity. In addition, the dispatchable power generation provided by the proposed CCGS would be critical during stressed grid conditions that may be caused by low-probability, but high impact events when the renewable generation resources and/or transmission assets become unavailable due to emergency circumstances (e.g., the temporary loss of critical renewable energy transmission lines caused by wildfire or earthquake). Stressed grid conditions may also result from sustained periods of low renewable generation or transmission line maintenance and upgrades which can be exacerbated if they coincide with periods of high electricity demand.

Although the use of in-basin generation, including the proposed project, in the LADWP system would continue in order to maintain system reliability and resilience, the actual usage would be generally minimal and primarily for backup. As shown on Figure 1 below from the Draft LA100 Plan, under the base planning case for system-wide operations, which provides for 80 percent renewable resources by 2030, the capacity factor for combustion generation, whether using natural gas or hydrogen fuel, would be in the low single digits after 2030. Under the Senate Bill 100 case, which provides for 60 percent renewable resources by 2030 and which was used as a conservative assumption in the Draft EIR, this capacity factor would likely increase because of the lower availability of renewables. However, except under rare emergency circumstances requiring a more extended period of operation, the annual capacity factor for the proposed project under Senate Bill 100 assumptions is projected to remain below the capacity factors range of 7.09 to 9.85 percent indicated above.

Figure 1

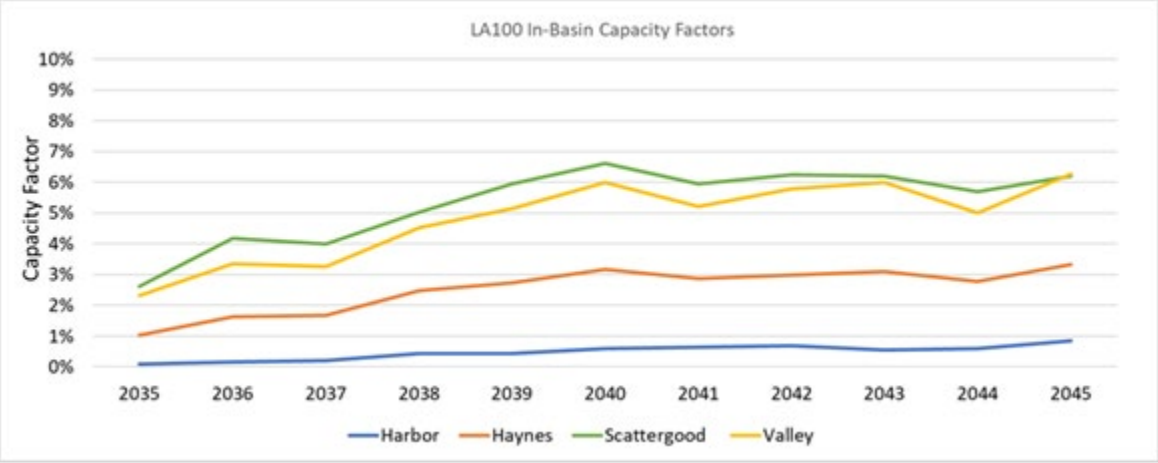


Figure 1. Projected capacity factors for LADWP's in-basin thermal plants under the LA100 Pathway reflecting their role as low-utilization, dispatchable resources for balancing the grid. Source: LADWP Draft LA100 Plan.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-16

The commenters state the EIR fails to define what constitutes green hydrogen and the green hydrogen production system that will be built. The commenters also state that the request to analyze steam methane reforming (SMR)/fossil-based steam production was ignored.

The commenters are referred to Section 3.2.2, Green Hydrogen, of the Draft EIR, which defines green hydrogen as a carbon-free fuel that is typically produced through a process called electrolysis, in which water is split into hydrogen and oxygen using renewable electricity. It is not anticipated that hydrogen would be produced through any other method, including SMR/fossil-based steam production. Further, for purposes of analysis of proposed project operations, the method of production makes no difference to the analysis of operational impacts. The commenters are referred to **Response to Comment No. P95-10**, which addresses the unknown elements of hydrogen production that make analysis in this EIR speculative. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-17

The commenters state the baseline for emissions should be the hypothetical shutdown of Units 1 and 2 due to the 2029 OTC closure deadline. The commenters are referred to **Topical Response No. 5 – Project Baseline Environmental Conditions**. As discussed therein, in accordance with CEQA Guidelines Section 15125(a)(1), recent emissions data for Units 1 and 2 were used in the Draft EIR to establish the baseline conditions to determine impacts of proposed project operations because Units 1 and 2 are currently in use. Existing conditions "will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (Cal. Code Regs., tit. 14, § 15125, subd. (a).) A departure from this norm can be justified by substantial evidence that an analysis based on existing conditions would tend to be misleading or without informational value to EIR users. (See *Neighbors for Smart Rail v. Exposition Metro Line Constr. Auth*. (2013) 57 Cal.4th 439.) As applied here, a future condition in which Scattergood Units 1 and 2 are no longer operating and the proposed project has not been approved is not a reasonably foreseeable future baseline condition, and there is nothing to suggest that using

existing conditions as the baseline would be misleading or without informational value. The complete shutdown of Units 1 and 2 in the absence of this project would have potentially catastrophic impacts on the regional power grid. Given the importance of the generation capacity Scattergood provides, it is reasonably foreseeable that Units 1 and 2 would need to keep operating if this project were not approved. It would therefore be speculative to utilize a baseline environmental condition that does not consider emissions from Units 1 and 2.

While a system similar to the proposed project (i.e., an air cooled condenser) was determined to be infeasible to maintain the operations of Units 1 and 2, given their age, a retrofit of the cooling system employing a wet tower (similar to cooling system retrofit projects currently planned at LADWP's Haynes and Harbor Generating Stations) would potentially be feasible. While such a retrofit would not be cost-effective or preferred when compared to the proposed project given the age of Units 1 and 2, and was therefore not considered as a viable alternative to the proposed project in the Draft EIR, because of the critical need to maintain generation capacity at Scattergood to avoid disruptions to the grid, it would be considered in the event the proposed project does not move forward.

A future condition that necessarily assumes Units 1 and 2 shut down after 2029, the current deadline for the cessation of the OTC system at Scattergood, would be entirely hypothetical. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-18

The commenters state that Scattergood is on the SCAQMD Rule 317.1 Title V Affected Facilities list which levies an annual Clean Air Act nonattainment fee for excess air quality emissions and asserts that instead of maintaining the same level of NO_x and $PM_{2.5}$ emissions in an air basin federally mandated to reduce those emissions, the baseline against which project emissions are evaluated should reflect the shutdown of Units 1 and 2 (instead of reducing emissions) and the pursuit of compliance with federal air quality standards.

The commenters are directed to **Response to Comment No. P95-17**, which states that pursuant to CEQA Guidelines Section 15125(a), recent emissions data for Units 1 and 2 were used in the Draft EIR to establish the baseline conditions to determine impacts of proposed project operations because Units 1 and 2 are currently in use, and absent the proposed project, the necessity to maintain as much generation capacity at Scattergood as possible would likely require a solution that would enable the continued operations of Units 1 and 2, whether through appeals to further extend the OTC deadline or through the implementation of alternative cooling technologies for the units. It would be speculative to utilize a baseline environmental condition that does not consider emissions from Units 1 and 2. Regardless of the nonattainment status, the project should establish an environmental setting that normally constitutes the baseline physical environmental conditions as they exist at the time the notice of preparation is published and not what the environmental conditions should be. (See *John R. Lawson Rock & Oil, Inc. v. State Air Resources Board* (2018) 20 Cal.App.5th 77, 104 [agency within its discretion to adopt a baseline calculation that measured the current environment without further reducing figures based on regulations that should have taken effect during the course of the analysis].) No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-19

The commenters state that the project does not address environmental justice community concerns and is located in a disadvantaged community as defined by Senate Bill (SB) 535. The

commenters are directed to **Topical Response No. 3 – Environmental Justice**. As discussed therein, CEQA does not require analysis of environmental justice, as defined by Government Code Section 65040.12(e), outside of the discussion of physical impacts pursuant to Public Resources Code Section 21083(b)(3).

The commenters point to two other facilities that they state are located in disadvantaged communities—Harbor Generating Station and Valley Generating Station—and state that these projects should have been reviewed collectively as part of a programmatic EIR. As explained in **Responses to Comments No. P95-5**, these projects are separate undertakings and each has independent utility, and LADWP appropriately exercised its discretion to consider only the Scattergood Modernization in a project-level CEQA document.

The commenters state that the project site straddles two census tracts (6037980028 and 6037980030) identified as disadvantaged communities under SB 535, which directs the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities specifically targeted for investment of proceeds from the state's Cap-and-Trade Program.[60] Census tract 6037980028 is within the boundaries of the City of Los Angeles and includes LAX, Hyperion WRP, Scattergood, and several small commercially zoned uses. Census tract 6037980030 is located within the City of El Segundo and is zoned Heavy Manufacturing. It encompasses the El Segundo Refinery and El Segundo Power Plant, and contains no residential community. The census tract also contains a strip of beach shoreline adjacent to the existing refinery and power plant, which is zoned open space and similarly contains no residential community. Therefore, claims that the project site is located in a disadvantaged community are unfounded and neither of the census tracts noted above contain populated communities according to the State's data for disadvantaged communities.[61] It should be noted that the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged communities. In summary, with no disadvantaged communities, no minority populations, and no poverty populations, the areas within the project site and vicinity do not contain environmental justice communities. Therefore, the project would not result in disproportionate impacts to environmental justice communities.

Furthermore, the commenters are referred to Section 4.2, Air Quality, of the Draft EIR, which discusses Health Risk Assessments (HRA) that that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold. In addition, the chronic and acute hazard indexes would be below the significance threshold. To ensure that potential health risks in the surrounding area were fully analyzed, this HRA was based on the highly conservative assumption for the proposed CCGS of one cold start per day, one shutdown per day, and maximum operation for the remainder of the day, 365 days a year. Therefore, because the proposed project is anticipated to run intermittently and the analysis showed no exceedance of significance thresholds at full capacity, the proposed project would not expose sensitive receptors to substantial pollutant concentrations regardless of the socioeconomic status of the surrounding communities, and health risk impacts would be less than significant.

[60] State of California, Office of Environmental Health Hazard Assessment. SB 535 Disadvantaged Communities. Available at: https://oehha.ca.gov/calenviroscreen/sb535. Accessed June 2025.

[61] Ibid.

Commenters state that “increased hydrogen demand,” “continued methane combustion,” and prolonging gas plant operations could have impacts on environmental justice communities. Commenters also question whether the project will actually use green hydrogen—despite the fact that the project description specifically describes the intended use of the facility, and speculate about potential impacts of hydrogen transport and storage.

The project description is defined by the lead agency, and the agency is not required to consider the impacts of non-project scenarios suggested by project opponents. The intention of the project is to provide the capability to utilize green hydrogen fuel at Scattergood, and any other potential outcome is speculative and not reasonably foreseeable. As previously stated, the hydrogen infrastructure, specifically related to the transport of hydrogen, would be entirely speculative at this point, as there is no way to know the source of the hydrogen and in the instance of transport via truck, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would therefore be of little to no informational value to decisionmakers and the public. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-20

The commenters are concerned that the hydrogen infrastructure safety standards would not be sufficiently ascertained and in place by the 2029 timeline proposed by the project, thereby increasing the risks of embrittlement and leakage rates for the pipeline infrastructure. The commenters are directed to **Topical Response No. 2 – Hydrogen**. While LADWP would not implement or operate hydrogen infrastructure and would instead be a purchaser of hydrogen to supply the proposed project, LADWP would nonetheless be committed to ensuring hydrogen-related safety practices are adhered to during on-site operations.

Because the combustion-turbine generator component of the proposed CCGS would be hydrogen-ready, project impacts related to the on-site hydrogen system during operation and the issue of leakage were considered in the EIR. As discussed above in **Response to Comment No. P95-11** and detailed further in **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, through compliance with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards outlined in CGA G-5.4, the project’s on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Regarding the California Public Utilities Commission Hydrogen Blending Impacts Study, the proposed project facilities would be designed, constructed, operated, and maintained to avoid embrittlement of materials and prevention and/or control of piping corrosion, hydrogen-induced cracking, mechanical damage, welding/fabrication defects, and other errors or failures related to the use of hydrogen fuel.

Additionally, as the commenters cite Comment No. 95-70 as bracketed in the PSE Report, the commenters are referred to corresponding **Response to Comment No. P95-70** for a specific response.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-21

The commenters state that SCAQMD requested that area sources (e.g., solvents and coatings) be included as part of the air quality impact analysis, but states that area sources were not considered in the Draft EIR. SCAQMD requested this analysis in its response to the Notice of Preparation of the Draft EIR. The comment from SCAQMD was addressed in Appendix B, Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis Report, of the Draft EIR. The inputs assumed for the air quality emissions model include phases for architectural coatings (i.e., area sources) during construction and commissioning. The architectural coating phase would last for approximately 348 days, 5 days a week. Additionally, area sources would occur during the mobilization and commissioning phases to account for fuel deliveries, 43 days and 130 days, respectively, 5 days a week. As such, area sources are included in the air quality impact analysis. Notably, SCAQMD did not raise this issue again in its comments on the Draft EIR. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-22

The commenters state that there is a possibility that additional tribes may not yet have been consulted and should be consulted. The commenters also believe Senate Bill (SB) 18 may apply to this project. The commenters are referred to Section 4.6, Tribal Cultural Resources, of the Draft EIR. In accordance with LADWP's CEQA Tribal Consultation Policy and AB 52, LADWP provided notification about the proposed project to nine tribes identified by the Native American Heritage Commission (NAHC) as being traditionally or culturally affiliated with the geographic region surrounding the project site, and therefore, possibly possessing knowledge about potential tribal cultural resources that could be affected by the project. In response to this notification, the Gabrieleño Band of Mission Indians–Kizh Nation (Kizh Nation) and the Gabrielino Tongva Indians of California (Gabrielino Tongva), requested consultation with LADWP under AB 52 regarding potential impacts of the project. LADWP held formal consultation meetings with each of these two tribes to discuss the scope of the project and the project site's extensive development history. The entire project site is built upon, hardscaped, or otherwise disturbed, and the project area is located on an artificially flat area composed of fill soils. Additionally, 3.5 million cubic feet of sand was removed and relocated to nearby beaches to clear the site when the plant was originally constructed circa 1958, indicating that the project site has low sensitivity for buried archaeological resources. As discussed with the consulting tribes, Cultural Resources Awareness Training and procedures for Inadvertent Discovery of a Tribal Cultural Resource will be implemented as described in the MMRP. Tribal consultation closeout letters summarizing consultation efforts and outcomes were sent to each of the consulting tribes to conclude tribal consultation under AB52 and CEQA.

SB 18 applies to the adoption or amendment of general plans or specific plans, or designation of open space as defined under Government Code Section 65352.3(a)(1) and Government Code Section 65562.5, respectively. As the project does not require adoption or amendment of a general plan or specific plan, nor does the project require designation of open space, tribal consultation under SB 18 does not apply and is not required.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-23

The commenters state the Draft EIR should have more fully considered certain alternatives including more condensed and longer-duration energy storage resources and a combined

resource portfolio approach. The commenters suggest environmentally superior alternatives should be included “as mitigation measures” or as part of the Plan and that LADWP should consider zero emission alternatives that are listed under the “Considered but Dismissed from Detailed Analysis” section.

The commenters are directed to Chapter 5, Alternatives to the Proposed Project, of the Draft EIR. According to CEQA Guidelines Section 15126.6(a), the EIR need not consider every conceivable alternative to a project nor is it required to consider alternatives which are infeasible. Furthermore, as described under Sections 15126.6(a) and 15126.6(f) of the CEQA Guidelines, there is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason, and EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

SCAQMD requested in NOP comments that the EIR consider three zero-emissions alternatives (alternative in-basin clean energy generation, increase demand side management programs, and new and upgraded transmission lines). As discussed in **Topical Response No. 4 – Alternatives**, these alternatives were considered but dismissed from detailed analysis because they are not true project alternatives – in fact, they are already being implemented by LADWP and are complementary to the proposed project, and they would continue as planned whether or not the project is implemented. These alternatives are accounted for in the SLTRP as a necessary step for maintaining a reliable system that is less dependent on combustion generation; however, the proposed project’s objectives are to provide resilience to help the electrical power system meet peak demand that exceeds available renewable generation resources and energy storage capacity and during infrequent and relatively short-term but major interruptions in the primary carbon-free generation and/or transmission system caused by emergency circumstances. These three alternatives would not meet this critical objective of the project. Therefore, because these alternatives are already being implemented and because they do not meet the critical project objectives, they were appropriately excluded from consideration among the alternatives considered in the EIR. Notably, SCAQMD did not raise any issues with respect to the alternatives analysis in its comment letter on the Draft EIR.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-24

The commenters state the Draft EIR failed to incorporate the NREL Scattergood Modernization Project Alternatives: Summary of Findings February 2025 report and limited the timing available for the public to review and incorporate comments to one month. The commenters are referred to **Topical Response No. 4 – Alternatives** which addresses public comments stating that the Draft EIR should be informed by the NREL Scattergood Modernization Project Alternatives: Summary of Findings February 2025 report.

As discussed therein, NREL completed the analysis under the specifications established by the Los Angeles City Council Motion 23-0039. Accordingly, the basis for the NREL Alternatives Report is distinct from the CEQA-mandated environmental review conducted through the EIR and supplements the LA100 Study. The NREL Alternatives Report considers changes in technologies that have occurred since the completion of the LA100 Study and reevaluates the need for dispatchable capacity at Scattergood. The report compares the proposed project to four non-combustion alternatives (i.e., new and upgraded transmission, energy storage, fuels cells, and demand response) as well as combinations of the above technologies by considering their constructability by 2029, contribution toward reliability, cost, ability to be sited at or near Scattergood, safety, and emissions among other factors. The NREL Alternatives Report is not

part of the EIR and would not be subject to the same CEQA-mandated environmental review process as the Draft EIR. Nonetheless, information and analysis from the NREL Alternatives Analysis that are applicable to the alternatives analysis in the EIR have been incorporated into the **Topical Response No. 4 – Alternatives** discussion.

Furthermore, several stakeholders requested that LADWP extend the public comment period on the Draft EIR in order to allow the public to review the NREL Alternatives Report prior to the close of that period. LADWP agreed, and the public comment period was accordingly extended five times, closing on April 7, 2025, after a total of 159 days. Therefore, stakeholders and the public had adequate time to consider the NREL Report prior to the close of the comment period and LADWP's consideration of the project.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-25

The commenters state the Draft EIR, and NREL Alternatives Analysis, fails to hold the project to the same level of scrutiny applied to the proposed alternatives and improperly dismisses certain alternatives on the basis of risks that would also apply to the project. The commenters note that the cost concerns and lack of available green hydrogen by 2030 for the construction and operation of Alternative 3: Green Hydrogen Powered Fuel Cells are considerations that apply to the project as well as the alternatives.

The commenters are referred to **Topical Response No. 4 – Alternatives** which explains that while technically feasible, fuel cell technology at the scale required to replace the proposed project generation capacity has not been sufficiently demonstrated and may take over 10 years to implement given the amount of fuel cells and equipment needed to meet the proposed project capacity. Additionally, typical lifespans for fuel stacks range from 4 to 10 years, depending on the fuel cell and operating scenario compared to the 30-year lifespan of a CCGS. Once it reaches the end of its design life, the entire fuel cell stack must be replaced, resulting in additional costs, outages for Scattergood, and increased risks to system reliability.

As noted by the commenters, the NREL Alternatives Report further affirms that the quantity of green hydrogen necessary for a 100-percent hydrogen fuel cell alternative would not be available by 2030. For the fuel cells operating on a fuel mix, the proton exchange membrane (PEM) fuel cell with the use of a reformer to convert natural gas into hydrogen and the solid oxide fuel cell (SOFC) technologies would be viable options that could fit within the Scattergood footprint. However, the efficiency of the PEM fuel cells is lower than the proposed project and each unit of electricity generated by a PEM would require 1.5 times the fuel used by the proposed project for the same amount of electricity. The efficiency of the SOFC is similar to the proposed project, but the SOFC has long start times (typically 4-6 hours) and would typically be running at a low load to avoid shutdown. Furthermore, the largest deployed fuel cell units in the U.S. for PEM and SOFC are at 1.5 MW and 16.5 MW capacity, respectively. As such, even though this alternative would have similar requirements for hydrogen fuel and safety, operational efficiencies, and emissions rates to the proposed project, this alternative has the added uncertainty associated with the technology at the scale required to meet generation capacity and the higher costs associated with fuel usage and fuel cell equipment replacement due to a shorter lifespan than the proposed project. This alternative also does not have the option to run on 100 percent natural gas as proposed by the project in case of limited availability of hydrogen fuel which may be the circumstance during the initial phases of operation.

Therefore, no revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-26

The commenters state the Draft EIR's rejection of Alternative 3: Green Hydrogen Powered Fuel Cells defies logic and the rule of reason pursuant to CEQA Guidelines Section 15126.6(f) because the unproven technology limitations (i.e., technical and operational risk and uncertainty) of buildout of a new hydrogen pipeline system across Southern California into Los Angeles and a non-existent green hydrogen market should be equally weighed when comparing the proposed project to the alternative.

At the outset, it should be noted that the Draft EIR did not reject Alternative 3 from further consideration. While the limitations of that Alternative were disclosed in the Draft EIR, Alternative 3 was analyzed for its ability to meet some project objectives and address environmental impacts and remains a technically feasible alternative to the proposed project for the Board's consideration. The commenters are referred to **Response to Comment No. P95-25** and **Topical Response No. 4 – Alternatives**. The Draft EIR acknowledges that both Alternative 3 and the proposed project would have similar technological and operational risks and uncertainties associated with the hydrogen pipeline system and the purchase of green hydrogen. However, Alternative 3 has the added uncertainty associated with the fuel cell technology at the scale required to meet the project's generation capacity and the higher costs associated with fuel usage and fuel cell equipment replacement due to a shorter lifespan than the proposed project. Additionally, Alternative 3 does not have the option to run on 100 percent natural gas as proposed by the project in case of limited availability of hydrogen fuel which may be the circumstance during the initial phases of operation. Therefore, no revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-27

The commenters state the Draft EIR improperly dismissed the battery energy storage system (BESS) alternative (Alternative 2: Energy Storage) due to cost, land constraints, and insufficiency for meeting project objectives. The commenters also state the Draft EIR failed to consider multiple BESS technologies that would meet project objectives.

Again, the Draft EIR did not reject Alternative 2 from further consideration. While the limitations of that Alternative were disclosed in the Draft EIR, Alternative 2 was analyzed for its ability to meet some project objectives and address environmental impacts and remains a technically feasible alternative to the proposed project for the Board's consideration. The commenters are referred to Section 5.6.2, Alternative 2: Energy Storage, of the Draft EIR, which states that a typical BESS with 1 megawatt (MW) of power capacity rated at 4 megawatt hours (MWh) of usable energy capacity means that the battery, if discharged at its total possible instantaneous power capacity, would have an operational duration of four hours before its energy capacity is fully depleted.[62,63] The commenters are also referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for a discussion on the reliability requirements. As discussed therein, the proposed project is sized at 346 MW to provide reliability and flexibility under the uncertainty of load growth, unforeseen project delays, and the potential of transmission and

[62] Edina. Battery Energy Storage System: The Ultimate Guide. Available at: https://www.edina.eu/power/battery-energy-storage-system-bess.

[63] National Renewable Energy Laboratory. 2019. Greening the Grid – Grid Integration Toolkit: Grid-Scale Battery Storage – Frequently Asked Questions. September.

generation asset outages. Using the 346 MW gross generation capacity to estimate the 1,384 MWh of energy that would be produced in 4 hours allows for a comparable estimate of how much space a typical BESS with the same generation capacity would require. The commenters suggestion that a comparable analysis for the BESS's 4 hours of peak energy production is to analyze a "similar" scenario where an emergency requires the CCGS to run from fuel stored onsite due to the shutdown of pipelines supplying the fuel, does not abide by the rule of reason, as a typical BESS is limited in the operational duration of 4 hours, whereas a CCGS is a generation source that is always available and dispatchable.

The commenters are also referred to **Topical Response No. 4 – Alternatives and Responses to Responses to Comment Nos. P95-69 through P95-73**, which address concerns related to BESS. Though technically feasible, implementation of a grid-scale BESS to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS and would require substantially more real estate. The NREL Alternatives Report affirms the land required for a battery of equivalent capacity to the proposed project greatly exceeds the area available at Scattergood, even with an increased 10-hour duration (from 4 hours). Using existing case studies in California with installations of at least 100 MW, and taking into account projects with higher density BESS, the report adjusted the data to conform to the reliability requirements and determined that even with the siting characteristics of the highest density project (including the commenter's suggestion of stacking of batteries), the capacity of energy storage potential at Scattergood would be substantially smaller than the proposed project (180 MW on 9 acres, or 60 MW on 3 acres [proposed project footprint]). Given there is insufficient land available at Scattergood for batteries to provide a full replacement alternative for the proposed project and based on the uncertainty associated with acquisition of land located near Scattergood, energy storage cannot be implemented by 2030.

Furthermore, regarding multiple BESS technologies, the commenters are referred to **Topical Response No. 4 – Alternatives**, which states that during periods of extreme peak demand, batteries would need to be recharged largely from in-basin generation during overnight time periods (likely from combustion generation sources), which may reduce the lifespan of certain electrical equipment, especially during heatwaves. Typically, reduced overnight loads allow transformers and other equipment to cool, and additional loading from storage charging would reduce cooling opportunities, potentially increasing failure rates and requiring accelerated equipment replacement and associated costs. The NREL Alternatives Report further affirms that though non-lithium based battery types have the potential to be competitive when deployed at scale for longer-duration applications, the technologies are all in the early demonstration phase without multi-MW installations and multiple years of commercial operation, or without multiple vendors representing a robust supply chain. The report noted that the total installed capacity of all non-lithium batteries since 2020 is approximately 24 MW, and thus, would not meet the generation capacity of the proposed project. The NREL Alternatives Report also identified an option to combine fuel cells, storage, and demand response. However, these combinations do not eliminate the technological risks and uncertainties associated with large-scale installations and would still be more costly to implement than the proposed project.

Finally, as noted by the commenters, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's LA100 Plan (formerly SLTRP). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be deployed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. However, such energy storage has independent utility from the proposed project, and, furthermore, due to space constraints at Scattergood, energy storage could not be implemented

within the station until after completion of the proposed CCGS because the only available property would be used as the staging area for the proposed project construction-related laydown, storage, parking, and administration.

Therefore, no revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-28

The commenters state a hybrid energy storage and demand-side alternative should be considered in a recirculated Draft EIR. The commenters cite the PSE Report, which provides further details of this proposed alternative (see Comment Nos. P95-87 through P95-91). Therefore, the commenters are referred to **Responses to Comments Nos. P95-87 through P95-91** for detailed responses to the issues associated with this proposed alternative.

The commenters are also referred to **Topical Response No. 4 – Alternatives**. As discussed therein, hybrid or combination of alternatives would not meet the reliability requirements discussed under **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** which provides information regarding a finite reliability objective, clarifies the proposed project's technical justification given the lack of feasible alternatives that can achieve this objective, and provides a broader context of the project considering LADWP's other clean-energy strategic initiatives. The combination of alternatives would also not meet the project objectives discussed in Section 3.4 of the Draft EIR. Specifically, this combination of alternatives would not establish a generation source that is always available and dispatchable.

Further, as detailed above, these combinations do not eliminate the technological risks and uncertainties associated with large-scale installations, and would still be more costly to implement than the proposed project. PSE points to the adjacent Hyperion WRP and LAX and states that large acres of land on these sites can be leased by LADWP to site solar and storage systems to meet project objectives. However, PSE does not consider the feasibility of LADWP leasing such land from LAX or Hyperion WRP. LAX is overseen by Los Angeles World Airports (LAWA), which is a department of the City of Los Angeles and is governed by a board of commissioners. In addition, LAX has its own land use plan called the LAX Plan, which works in conjunction with a LAX Specific Plan and is a part of the City of Los Angeles' General Plan.[64] Hyperion WRP is overseen by the City of Los Angeles Bureau of Sanitation (LASAN) and is undergoing or implementing existing plans, in part with LADWP, to optimize the City's water supply and recycling. Neither of these sites is under LADWP's jurisdiction, nor would large areas of land on either of these sites be available to LADWP to lease because the land at both sites is largely encumbered by either safety restrictions or significant future development plans.

As described in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, when considering possible alternative locations to the proposed project, acquisition of a new property for this purpose, while technically feasible, may be cost-prohibitive and extremely difficult in comparison to use of the proposed project site, which is located within the Scattergood service area on property owned and controlled by LADWP. Property acquisition or leasing of the extensive acreage proposed by PSE would need to undergo extensive entitlement and permitting processes that may cause substantial delays in achieving some of the project's objectives. In addition, though PSE's suggested alternative would eliminate air quality impacts associated with the combustion of fuel during commissioning and operations, implementation would require a substantially larger amount of acreage, including potentially land for transmission lines, which

[64] Los Angeles World Airports. LAWA Our LAX – Plan and Ordinance. Available at: https://www.lawa.org/lawa-our-lax/plan-and-ordinances.

would increase the footprint of construction impacts compared to the proposed project, including potential impacts related to land use, biological resources, construction noise, paleontological resources, tribal cultural resources, and hazards and hazardous materials during excavation and construction activities, depending on site characteristics, which cannot be reasonably ascertained at this time.

Implementation of a grid-scale BESS, though technically feasible, to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity comparable to the proposed project CCGS and would require substantially more real estate. The NREL Alternatives Report using existing case studies in California with installations of at least 100 MW and projects with higher density BESS and adjusting the data to conform to the reliability requirements, determined that even with the siting characteristics of the highest density project (including stacking batteries), the capacity of energy storage potential at Scattergood would be substantially smaller than the proposed project (60 MW on 3 acres [proposed project footprint]). Given there is insufficient land available at Scattergood for batteries to provide a full replacement alternative for the proposed project and based on the uncertainty associated with acquisition of land located near Scattergood, energy storage cannot be implemented by 2030 and, therefore, is not a viable alternative to the proposed project. The NREL Alternatives Report further affirms that though non-lithium based battery types have the potential to be competitive when deployed at scale for longer-duration applications with a total installed capacity of approximately 24 MW since 2020, the technologies are all in the early demonstration phase without multi-MW installations and multiple years of commercial operation, or without multiple vendors representing a robust supply chain.

Furthermore, while demand side management programs would help reduce GHG emissions through the reduction in overall energy demand, they would not meet the other project objectives. Implementing a hybrid demand side management program in place of the proposed project would not help maintain a reliable electrical power system to meet peaks in demand or major interruptions caused by emergency circumstances because such programs target basic demand reduction and rely on customer behavior. Even if the demand-response goals from the SLTRP are met or exceeded, the resulting resources would not supply firm generation capacity in the Los Angeles basin. As such, demand response is a valuable conservation strategy, but it is not a reliable source of firm dispatchable generation necessary during outages of LADWP's primary carbon-free generation and/or transmission system. Aggressive demand-side management has been accounted for in the need for the proposed project and is currently being implemented by LADWP. Demand side management is complementary to the proposed project and will continue as planned whether or not the project is implemented.

Additionally, as PSE acknowledges in their report, it is difficult to quantify the additional capacity of certain local resources beyond the assumptions made in the LA100 Study without more data. As described above, acquisition or leasing of the extent of acreage would be dependent on the technological capacity of local resources and would present its own challenges based on property ownership/jurisdictional oversight, deviations from land use plans, and conflicts with implementation of existing planned activities. As such, given the potential limitations of the individual local resources, the combined alternative would not likely meet the project objectives to provide generation capacity to the service area and to provide resilience and reliability of the LADWP electrical power system to help meet peaks in demand and infrequent and relatively short-term, but major, interruptions caused by emergency circumstances (refer to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**). Lastly, as emphasized in the Draft EIR and Final EIR, the implementation of BESS, demand-side management, and in-basin distributed generation are complementary to the proposed project and will continue as planned whether or not the project is implemented.

Also, as the commenters cite Comment Nos. P95-33, P95-34, P95-36, P95-44, P95-70 through P95-73, and P95-80 through P95-91, as bracketed in the PSE Report, the commenters are referred to corresponding **Response to Comment Nos. P95-33, P95-34, P95-36, P95-44, P95-70 through P95-73, and P95-80 through P95-91** for specific responses.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-29

The commenters state the Draft EIR improperly relies on the LA100 Study to justify the need for in-basin generation and requests that no-combustion technology be considered to meet the need for firm capacity as articulated in the LA100 Study. The commenters are referred to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for a discussion on the purpose of the proposed project and the need for in-basin generation to meet the firm capacity at a specific location within the LADWP system. The amount of electricity that can be imported to the Westside is limited by the capacity of the local transmission system. Whenever the Westside's electricity demand exceeds the maximum power that can be imported, local power generation must provide enough electricity to cover the difference and ensure that the overall demand is met and the grid remains stable. LADWP's 2021 Local Capacity Technical Analysis study (the most recent LCT analysis) identifies Scattergood as a critical localized asset, and analyzed the constraints of transmission in relation to Westside loading and the specific need for Scattergood to relieve those constraints to maintain system reliability. The LCT Analysis study concluded that without adequate Scattergood generation, NERC reliability criteria would require planned and controlled customer outages at strategic locations to avoid risk of uncontrolled widespread blackouts.

Several transmission projects are either underway or planned to improve the Westside's capacity to import renewable energy. These upgrades are expected to reduce reliance on Scattergood, limiting its operation to specific situations—such as during stressed grid conditions or when renewable resources are unavailable—based on power system reliability needs as outlined in the project objectives (see Section 3.4 of the Draft EIR). The future generation from the proposed project depends heavily on several key assumptions, including the advancement of renewable energy deployment, the timely completion of numerous transmission projects, electricity demand, unscheduled generator and transmission outages, and other related factors.

Upgrading transmission capacity is a complex process that involves careful planning and coordination to ensure both safety and reliability. As part of this implementation, certain phases of construction require transmission lines to be de-energized to protect personnel working on or near the infrastructure. Importantly, as a result of the decreased transmission capacity from these planned outages, the necessity of local generation increases to maintain NERC-required reliability criteria and avoid customer disruptions. Therefore, many combinations of critical system upgrades cannot occur simultaneously without putting Los Angeles residents at risk of power outages. This is an important consideration for long-term planning and may lead to additional delays for necessary projects.

Response to Comment No. P95-30

The commenters state the Draft EIR fails to consider alternatives that mitigate impacts from existing Scattergood operations (i.e., OTC operations) which could be implemented earlier than the current 2029 OTC deadline. Under CEQA, LADWP is not required to mitigate for impacts related to ongoing operations and existing conditions but only for impacts related to implementation of the proposed project. (See Public Resources Code section § 21002.1 [public

agencies shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves].) Therefore, the exclusion of such alternatives does not invalidate the alternatives analysis presented in the Draft EIR.

As discussed in the Draft EIR, the cessation of use of the OTC system is mandated under the State Water Resources Control Board's (SWRCB's) OTC Policy. The environmental impacts related to this impact have been previously analyzed by SWRCB, and the cessation of use of the system is not a discretionary action by LADWP. Furthermore, the commenters are referred to **Topical Response No. 5 – Project Baseline Environmental Conditions**. Absent the proposed project, the necessity to maintain as much generation capacity at Scattergood as possible would likely require a solution that would enable the continued operations of Units 1 and 2, whether through appeals to further extend the OTC deadline or through the implementation of alternative cooling technologies for the units. In Chapter 5 of the Draft EIR (Alternatives to the Proposed Project), Section 5.5.4 (Retrofit Unit 1 and/or 2), retrofit of Units 1 and 2 is described as an alternative that was considered, but dismissed from detailed analysis because it would not achieve the reductions in air pollutant emissions, fuel consumption, and GHG emissions that would be attained by the proposed project. While a retrofit alternative would not achieve these objectives of the proposed project, Units 1 and 2 could continue operation as steam boilers without retrofitting. Continued operation would require an alternative cooling system given removal of the OTC system from service in 2029. While a system similar to the proposed project (i.e., an air cooled condenser) was determined to be infeasible given the age of Units 1 and 2, a retrofit of the cooling system employing a wet tower (similar to cooling system retrofit projects currently planned at LADWP's Haynes and Harbor Generating Stations) would potentially be feasible. While such a retrofit would not be cost-effective or preferred when compared to the proposed project given the age of Units 1 and 2, and was therefore not considered as a viable alternative to the proposed project in the Draft EIR, because of the critical need to maintain generation capacity at Scattergood to avoid disruptions to the grid, it would be considered in the event the proposed project does not move forward.

The commenters are also directed to **Response to Comment No. P95-29** which refers to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for a discussion on the purpose of the proposed project and the need for in-basin generation to meet the firm capacity at a specific location within the LADWP system that cannot be achieved by alternatives prior to the OTC cessation date.

Response to Comment No. P95-31

The commenters state that certain analyses of environmental impacts related to air quality and GHG emissions are inaccurate and incomplete. The commenters provide a list of specific concerns that should be evaluated in a revised Draft EIR. The commenters are referred to **Response to Comments Nos. P95-32 through P95-38** for responses to these specific concerns. No further response to this comment is required, and the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-32

The commenters state that the Draft EIR does not evaluate the cumulative health impacts from $PM_{2.5}$ exposure and only provides comparisons with the SCAQMD 24-hour significance threshold and not National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) annual average standards. The commenters also state that the Draft EIR does not consider secondary $PM_{2.5}$ and ozone formation and, thus, undercounts Scattergood's increase in emissions from precursors based on a 25 percent capacity factor. The Draft EIR did

evaluate cumulative health impacts from $PM_{2.5}$ exposure and considered secondary $PM_{2.5}$ and ozone formation, as described below.

The U.S. Environmental Protection Agency (USEPA) continually refines and strengthens the NAAQS for $PM_{2.5}$ to protect the public from harmful and costly health impacts, such as heart attacks and premature death. USEPA sets the primary (health-based) $PM_{2.5}$ standard to provide increased public health protection, consistent with the available health science.

As further detailed in **Response to Comment No. P95-48**, due to the region's non-attainment of the NAAQS and CAAQS $PM_{2.5}$ standards, any ambient air modeling by an agency or a facility would by default continue to result in non-attainment. Therefore, the SCAQMD, following USEPA's guidance for non-attainment pollutants, has established significant change thresholds, also known as Significant Impact Levels (SIL) to determine a project's impact for CEQA purposes. SCAQMD's March 2023 *South Coast AQMD Air Quality Significance Thresholds*[65] provide an annual threshold for PM_{10} but not $PM_{2.5}$. In reference to the nonattainment status of both PM_{10} and $PM_{2.5}$, SCAQMD's *South Coast AQMD Modeling Guidance for AERMOD*[66] was updated near the beginning of 2025 to state that "modeled maximum 24-hour and annual concentrations should be compared directly to the significant change thresholds of 2.5 and 1.0 micrograms/cubic meter, respectively." $PM_{2.5}$ is a subset of PM_{10} and, for a gas turbine combusting natural gas, it is standard to assume that $PM_{2.5}$ is equivalent to PM_{10} in its particle distribution. It is reasonable to assume the same is true for a gas turbine combusting natural gas and hydrogen, as the addition of hydrogen to the fuel mix would not alter the particle distribution pattern of $PM_{2.5}$ or PM_{10}.

Based on these assumptions, the annual $PM_{2.5}$ impacts associated with the annual direct $PM_{2.5}$ emissions from the project source are identical to the annual PM_{10} impact from Draft EIR Tables 4.2-22 through 4.2-27[67], all of which are less than the 1.0 microgram/cubic meter identified by SCAQMD as the significant change threshold for $PM_{2.5}$.

Furthermore, with regard to the commenter's concerns about secondary $PM_{2.5}$ and ozone formation, it should be noted that ozone and $PM_{2.5}$ standards are promulgated as public health-protective values based on the best health data established by the scientific community. Ozone specifically is regulated indirectly through reducing emissions of volatile organic compounds (VOC) emissions and nitrogen oxides (NO_x) emissions. Any impact analysis that quantifies the incremental increase in $PM_{2.5}$, VOC, and NO_x emissions and compares these to regulatory standards, such as that which was completed for the Draft EIR, addresses the underlying health impacts related to their exposure in accordance with USEPA's and California Air Resources Board's (CARB) published public health and welfare protection values.

Additionally, with regard to the commenter's reference to a 25 percent capacity factor, as discussed in **Response to Comment No. P95-15**, the capacity factor for the proposed project is anticipated to be in the single digits. The only mention of a 25 percent capacity factor in the Draft EIR is in relation to the historical average capacity factor for the combined existing units at Scattergood between 2016 and 2023 (Section 3.5.3 of the Draft EIR). Additionally, the operational air quality and health risk assessment analyses are based on the assumption of running the

65 South Coast Air Quality Management District. Significance Thresholds. Available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=f7601d61_25.

66 South Coast Air Quality Management District. South Coast AQMD Modeling Guidance for AERMOD. Available at: https://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance#Background. Accessed September 2025.

67 Vendor A: 0.23 ug/m^3 while combusting natural gas and 0.22 ug/m^3 while combusting natural gas and hydrogen; Vendor B: 0.19 ug/m^3 while combusting natural gas or natural gas and hydrogen; Vendor C: 0.55 ug/m^3 while combusting natural gas or natural gas and hydrogen.

proposed project based on one cold start per day, one shutdown per day, and maximum operation for the remainder of the day, 365 days a year, to determine the maximum possible emissions and associated health risk impacts. This is consistent with LADWP's permit application which considers a maximum allowable operational scenario that would ensure unlikely worst-case emissions are covered for the project even though the proposed project is anticipated to be operated less frequently, primarily to meet peaks in the requirement for electrical power during high demand days that exceed renewable energy production and energy storage capacity.

In the context of this comment, the commenters also rely on a 5-mile radius of the project site to suggest that the project would result in considerably more impacts than concluded in the Draft EIR. As further detailed in **Response to Comment No. P95-43,** the commenter uses scores from CalEnviroScreen as the basis for their claim that the area within a 5-mile radius is overburdened with environmental stressors. Upon review, it does not appear that CalEnviroScreen supports this claim, nor does it identify the entire 5-mile area as overburdened or highly sensitive. Based on CalEnviroScreen, approximately one-third of the census tracts (32 out of 91) within the commenter's 5-mile radius are considered overburdened. The commenter states that the CalEnviroScreen score is intended "…to give insight into the vulnerability of the tract compared to other tracts in the state." However, as applied here, our review determined that the demographic data of the population within the 5-mile radius of the proposed project site is almost identical to the state average. In addition, the commenter does not provide rationale for utilizing a radius of 5 miles, which is an arbitrary radius not grounded in an established methodology. Based on the above, LADWP does not believe there is any credible basis for utilizing the tools referenced by the commenter rather than the air dispersion modeling and HRA tools utilized in the Draft EIR, which follow the health risk assessment methodology developed by the State of California and recommended by SCAQMD for modeling environmental impacts under CEQA.

The commenters rely on USEPA's CO-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA) to show additional public health impacts from the project's emissions. However, as noted by the USEPA, COBRA does not replace regulatory quality analyses; COBRA serves as a preliminary screening tool to identify those scenarios that might benefit from further evaluation with the more sophisticated air quality modeling approaches that are currently available (such as those used for the Draft EIR analysis).[68] Additionally, as noted in Section 4.2, Air Quality, and Appendix B of the Draft EIR and **Response to Comment No. P95-43**, the project's HRAs were conducted in accordance with SCAQMD Risk Assessment Procedures and the Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. The project's analysis is based on standardized methodology, including AERMOD dispersion modeling developed by American Meteorological Society and USEPA to account for project- and site-specific factors. The air dispersion modeling extended six miles from the proposed project site for the purpose of identifying and quantifying the worst-case concentrations for residential and commercial receptors. Additional receptors were placed in residentially dense and commercial entrance areas to ensure worst-case concentrations were captured. Thus, the project analysis encompassed the 5-mile radius suggested by the commenters, and the impacts remain less than significant.

Therefore, the Draft EIR does not fail to evaluate cumulative public health impacts related to air quality. No further response to this comment is required, and the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Furthermore, as the commenters cite Comment Nos. P95-41 through P95-45, P95-49, P95-50, P95-55, P95-57, and P95-60, as bracketed in the PSE Report, the commenters are referred to

[68] USEPA. Last updated April 14, 2025. CO-Benefits Risk Assessment Health Impacts Screening and Mapping Tool COBRA. Why Use COBRA?. Available at https://www.epa.gov/cobra/why-use-cobra-0.

corresponding **Response to Comment Nos. P95-41 through P95-45, P95-49, P95-50, P95-55, P95-57, and P95-60** for specific responses.

Response to Comment No. P95-33

The commenters state that the Draft EIR presents emissions from the vendors based on a 10 percent capacity factor but presents emissions from currently combusted methane at a 25 percent capacity factor. The commenters state that this is misleading and shows hydrogen blend emissions to be artificially lower than methane emissions. The commenters state that if the project can indeed fill LADWP's capacity needs with a 10 percent capacity factor, then it must update its project alternatives section to evaluate alternatives that can satisfy that lower capacity need.

This comment incorrectly summarizes the EIR's approach, and the methodology in the EIR accurately evaluates project impacts. The only mention of a 25 percent capacity factor in the Draft EIR is in relation to the historical average combined capacity factor for all existing Scattergood generation units from 2016 through 2023 (Section 3.5.3 of the Draft EIR). This includes Units 1, 2, 4, 5, 6 and 7. The emissions from Units 1 and 2, which were used for baseline comparison with the proposed project, were based not on capacity factor but on Continuous Emissions Monitoring System (CEMS) data, which include historical measured emissions at the Units 1 and 2 stack as well as fuel consumption data used to calculate certain emissions in accordance with prescribed guidelines. These historical data were used to determine Units 1 and 2 baseline emissions related to criteria-pollutant 24-hour mass daily emissions. These emissions were compared to calculated proposed project emissions resulting from a highly conservative peak 24-hour operational scenario for the proposed CCGS, which included high ambient temperature (110 degrees), use of the CCGS evaporative cooler, a cold start event of 1 hour, a shutdown event of 0.5 hours, and the balance of operations (22.5 hours) at 100 percent load. This is an unlikely scenario for daily operations for the proposed CCGS and is a substantially more intensive use than the historical use for Units 1 and 2 from which the CEMS data was derived. However, the proposed project operational scenario established a very conservative basis from which to determine air pollutant impacts related to both the use of a hydrogen-natural gas blend and 100 percent natural gas for the proposed CCGS. Therefore, the analysis presented in the Draft EIR was not misleading and did not artificially lower emissions from the proposed project when compared to Units 1 and 2.

With regard to the alternatives concern, the commenters are referred to **Topical Response No. 4 – Alternatives, Response to Comment Nos. P95-23 through P95-30,** as well as **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability** for a discussion on capacity and reliability requirements. In general, as discussed in the Draft EIR, unlike current operations, under which in-basin generation units provide a substantial proportion of the service area's energy on a daily and annual basis, the proposed project would meet objectives related not to an annual capacity factor but to the requirement to respond to relatively short-term periods of excessive energy demand or shortfalls of imported power or a combination of both situations. Therefore, a low annual capacity factor, such as the 10 percent capacity factor suggested by the commenters, for the proposed project does not change the conclusions in the alternatives analysis that the project, in comparison to proposed alternatives, is better able to achieve the project objectives to provide firm local generation that can be dependably and rapidly dispatched to respond to demand for energy in the LADWP service area for short-term events.

Response to Comment No. P95-34

The commenters state that the Draft EIR underestimates public health impacts due to presumptuous NO_x emission factors. The commenters state that the vendor-provided emission factors are unverified and presented without methodology, and the commenters question the claim that NO_x emissions with a 30 percent hydrogen blend will be reduced when compared to

combustion of methane. The commenters also question the Draft EIR's reference to dry burner technology and an SCR system and state that no data is provided to show that these technologies exist at the project's scale.

Regarding concerns about the vendor-provided emission factors, it should be noted that the Units 8 and 9 permit applications and the Draft EIR analyses each used the same emissions factors provided by the vendors. The vendors are required to provide emissions/performance guarantees that comply with SCAQMD regulations as a condition of the permit to operate issued by SCAQMD. Because of this requirement to comply with SCAQMD regulations, the emissions factors provided by the vendors are likely conservative and may be expected to be lower in actuality than reflected in the EIR. Nonetheless, even using these conservative emissions factors, impacts to air quality were found to be less than significant, with the exception of the short-term temporary impacts related to the CCGS commissioning phase, as noted in Section 4.2 of the Draft EIR.

The commenters also express concerns that combustion of hydrogen blends elevates NO_x emissions compared to methane. According to the U.S. Department of Energy, "Because hydrogen burns at higher temperatures than natural gas, combustion of pure hydrogen may result in comparably higher NO_x emissions. However, this may be offset by the fact that hydrogen has a larger stable combustion temperature range, meaning a higher ratio of air to fuel can be used. This additional air effectively dilutes the hydrogen, which cools off the flame and results in lower-temperature combustion, thereby reducing the amount of NO_x emissions produced. Current research has shown that hydrogen combustion via turbines can achieve comparable performance and NO_x emissions to those of today's turbines running on natural gas."[69]

Furthermore, selective catalytic reduction (SCR) is a proven emission-reduction technology for NO_x from combustion sources. SCR has been used in applications with higher inlet NO_x using older combustion technology as well as lower inlet NO_x using newer combustion technology, such as in the proposed project. Although best available control technology (BACT) standards have not been established for blended fuel, it is expected that SCR will be the required emission control technology for electric-generating facilities that are permitted for blended fuel. Moreover, if the blended fuel is determined to have a higher inlet NO_x to the control system as the SCR will be designed to reduce emissions to BACT levels.

Additionally, the commenters state that there are suggestions in the Draft EIR and elsewhere that LADWP may want to move to 100 percent hydrogen fuel for the project and critiques that this scenario is not analyzed in the Draft EIR. However, the proposed project as presented in the Draft EIR provides for a fuel mix of 70 percent natural gas and 30 percent hydrogen. The fuel mixes analyzed in the EIR represent LADWP's reasonable expectations about facility operations. In addition, any increase in the hydrogen percentage above 30 percent would require an amendment to the facility's SCAQMD permit and additional CEQA review. No further response is required for this issue.

Also, as the commenters cite Comment Nos. P95-42, P95-51, and P95-52, as bracketed in the PSE Report, the commenters are referred to corresponding **Response to Comment Nos. P95-42, P95-51, and P95-52** for specific responses.

Accordingly, the Draft EIR does not contain an incomplete emissions analysis as suggested by the commenter.

[69] U.S. Department of Energy. Hydrogen and Fuel Cell Technologies Office. "Does the use of hydrogen produce air pollutants such as nitrogen oxides?" Available at: https://www.energy.gov/eere/fuelcells/does-use-hydrogen-produce-air-pollutants-such-nitrogen-oxides. Accessed September 2025.

Response to Comment No. P95-35

The commenters point to Table 4.2-15 of the Draft EIR and state that the Draft EIR inaccurately concludes that only significant peak daily emissions occur for VOCs for Vendor B. The commenters state that this is based, in part, on accounting for an improper baseline of current emissions. As this particular concern was raised in Comment No. P95-17, the commenters are referred to **Response to Comment No. P95-17.**

In addition, as discussed in **Response to Comment No. P95-32**, with regard to the commenter's concerns about ozone and $PM_{2.5}$ nonattainment, as well as secondary $PM_{2.5}$ and ozone formation, it should be noted that ozone and $PM_{2.5}$ standards are promulgated as public health-protective values based on the best health data established by the scientific community. Ozone specifically is regulated indirectly through reducing emissions of VOCs and NO_x. Any impact analysis that quantifies the incremental increase in $PM_{2.5}$, VOC, and NO_x emissions and compares these to regulatory standards, such as that which was completed for the Draft EIR, addresses the underlying health impacts related to their exposure in accordance with USEPA's and CARB's published public health and welfare protection values.

The commenters also state that the Draft EIR does not adequately consider cumulative air quality impacts due to failure to analyze the emissions generated by power plants operating under stressed load conditions on extreme weather days. However, the emissions factors used to establish peak daily emissions in the Draft EIR were based on highly conservative assumptions regarding ambient conditions and generator operational parameters. These included an ambient temperature of 110 degrees Fahrenheit, which is highly unlikely at Scattergood and would reduce generator efficiency, thereby also increasing air pollutant emissions relative to energy produced. Such conditions would prompt the use of the generator evaporative cooler, which would further reduce generator efficiency. In addition, as discussed on page 4.2-19 of the Draft EIR, the operational scenario used to determine peak daily emissions included one 1-hour cold start and one 0.5-hour shut down, during which pollution control systems would not be fully operational, and the balance of the day (22.5 hours) at 100 percent load. This daily operational scenario is a highly unlikely event, but provides a very conservative basis from which to determine peak emissions.

Additionally, as mentioned in Comment Nos. P95-33 and P95-34, the commenters express concern about the vendors' data and the claim that NO_x emissions with a 30 percent hydrogen blend will be reduced when compared to combustion of methane. The commenters are referred to **Response to Comment Nos. P95-33 and P95-34**, which addresses such concerns.

The commenters disagree with the Draft EIR's conclusion that the project would not significantly expose sensitive receptors to substantial pollutant concentrations. As detailed in Section 4.2, Air Quality, and Appendix B of the Draft EIR, the project's analysis utilized SCAQMD's LST methodology and SRA Zone 3 – Southwest Coastal LA County (El Segundo), which is the SRA that has the most stringent thresholds of the areas that are being considered for the project site. The analysis also utilized AERMOD dispersion modeling developed by American Meteorological Society and U.S. Environmental Protection Agency. Additionally, the proposed project's operational HRA was conducted in accordance with SCAQMD Risk Assessment Procedures and the OEHHA Air Toxics Hot Spots Program Guidance Manual. The construction HRA health risk calculations were performed using HARP2 and the Air Dispersion Modeling and Risk Tool. Values determined for each risk source using AERMOD were imported into HARP2 and used in conjunction with hourly and annual emissions to determine the ground-level concentrations for each pollutant. The ground-level concentrations were then used to estimate the long-term cancer health risk to an individual and non-cancer chronic and acute hazard indices. Per SCAQMD HRA guidance, the operational HRA estimated cancer risk over a 30-year period for residential grid

receptor locations and 25 years for off-site worker receptor locations. Accordingly, the project's analysis is based on standardized methodology.

Furthermore, as the commenters cite Comment Nos. P95-44 and P95-45, as bracketed in the PSE Report, the commenters are referred to corresponding **Response to Comment Nos. P95-44 and P95-45** for specific responses.

No further revisions are required for this issue. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-36

The commenters state that the Draft EIR should compare GHG emissions across different capacity factors and that the Draft EIR did not evaluate GHG emissions from the hydrogen blend scenario. With regard to the capacity factor concern, the commenters are referred to **Response to Comment No. P95-15**. As described in Section 4.3, Greenhouse Gas Emissions of the Draft EIR, the main source of GHG emissions from project operations would be the combustion turbine of the CCGS, which would result in higher GHG emissions when run with 100 percent natural gas than a natural gas/hydrogen fuel blend.

The commenters also state that the project did not analyze GHG impacts related to leakage, transport, and storage of hydrogen.

The commenters are referred to **Response to Comment No. P95-11** and **Topical Response No. 2 – Hydrogen** for hydrogen-specific concerns. As detailed therein, the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how production would occur, and how it would be delivered to Scattergood. While truck delivery of hydrogen to Scattergood is unlikely given the large volume of hydrogen that would be required during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered.

Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public. As such, the hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available. LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the proposed project. Furthermore, no on-site storage of hydrogen is anticipated for the proposed project.

Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the impacts related to the combustion of such a fuel mixture are analyzed in the Draft EIR. As discussed above in **Response to Comment No. P95-11** and detailed further in **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, through compliance with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards

outlined in CGA G-5.4. the project's on-site hydrogen operational activities would not create significant hydrogen leakage that has the potential to indirectly increase GHGs in the atmosphere.

The commenters also state that the Draft EIR does not include certain details fundamental to GHG emissions analysis for construction activities, such as removal of existing units and installation of a new dedicated wastewater pipeline. However, the Draft EIR accounts for these activities in its GHG emissions modeling, as provided in Appendix B of the Draft EIR. As shown therein, the inputs assumed for the air quality emissions model include phases for demolition, site preparation, and generation unit and ancillary facility construction. Construction activities are discussed in Chapter 1, Executive Summary, and Chapter 3, Project Description, of the Draft EIR. As stated therein, site preparation would take approximately 9 months and would include grading for and construction of the retaining walls, backfilling the site of the proposed CCGS, and modifying the in-station wastewater collection and discharge systems. Upgrading the switchyard with modifications to breaker and disconnect equipment and installing the wastewater pipeline to Hyperion WRP within Vista Del Mar would also be accomplished during the construction of the CCGS.

Also, as the commenters cite Comment No. P95-65, as bracketed in the PSE Report, the commenters are referred to corresponding **Response to Comment No. P95-65** for a specific response.

Accordingly, the Draft EIR's GHG emissions analysis is adequate. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-37

The commenters express concern that the Draft EIR does not analyze environmental impacts related to hazards and hazardous materials handled and/or created during the decommissioning of Units 1 and 2 and the production of hydrogen. The commenters state that the Draft EIR thus fails to meet CEQA standard for public disclosure and informed decision-making.

In fact, LADWP fully analyzed the impacts related to potential hazards due to handling of toxic materials during construction, commissioning, and operation. As discussed in the Initial Study (Appendix A of the Draft EIR) and in Section 4.0.3, Effects Not Found To Be Significant, of this EIR, the handling of construction-related hazardous materials would occur in conformance with applicable local, state, and federal regulations, including the implementation of a SWPPP. Soil sampling would occur in areas of disturbance to analyze for potential contaminants including but not limited to, releases of petroleum fuels, solvents, lubricants, oils, paints, corrosion inhibitors, asbestos, volatile organic compounds, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, metals, and other hazardous materials under California Code of Regulations Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste. Once the types, characteristics, and quantities of any hazardous substances detected at the project site have been determined, the management and disposition, including transportation, treatment, disposal, or recycling of identified hazardous substances, including those from decommissioning and demolition activities, would be in accordance with all applicable local, state, and federal environmental, health and safety laws, ordinances, and regulations. In the event of conflicts between applicable codes, standards, and regulations, the most stringent would apply. In addition, all hazardous waste would be sent to state licensed treatment, storage, and disposal facilities that have been approved to accept such wastes. The disposal and recycling of wastes would strictly comply with all local, state, and federal laws, rules, and regulations concerning the disposal of all waste substances. To ensure that reasonably foreseeable and accident conditions are sufficiently responded to during construction activities, including excavation and removal of potentially

contaminated soils and non-soil/sediment wastes, a Soil/Sediment Management Plan and a Waste Management Plan would be implemented as mitigation (Mitigation Measures MM-HAZ-1 and MM-HAZ-2, respectively).

The Initial Study also concluded that the storage, use, and transport of potentially hazardous materials during project operation, such as natural gas, ammonia, and water treatment chemicals, would be similar to current operations at Scattergood, and their use for the proposed project would be subject to the existing Scattergood Risk Management Plan and offset by a reduction in use associated with removal from service of existing Generation Units 1 and 2. All project components would be designed to ensure these hazardous materials would be contained and that such substances would not spill or leak. Therefore, there would be no increase in hazards through reasonably foreseeable upset and accident conditions related to these materials during operation. As such, the EIR adequately assessed impacts related to hazards and hazardous materials handled and/or created during the decommissioning of Units 1 and 2.

With regard to concerns about waste hazards from hydrogen production, the commenter is referred to **Topical Response No. 2 – Hydrogen.** As discussed therein, LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. As specified in Section 3.2.2 of the Draft EIR, the details of the green hydrogen system in terms of the production, delivery, and storage infrastructure are currently unknown. As such, the EIR does not address green hydrogen infrastructure because details related to the infrastructure needed to support the proposed project do not currently exist and any such analysis would be speculative and of little informational value. Therefore, as stated in Section 3.2.2 of the Draft EIR, the green hydrogen system will be analyzed under a separate environmental review and approval process when the necessary information to support an adequate analysis of potential environmental impacts, including those related to hazardous waste, is available. In no event, would LADWP produce hydrogen at Scattergood; therefore, potential hazards related to recycled wastewater used in the production of hydrogen are not addressed in the Draft EIR. However, as discussed above in **Response to Comment No. P95-11** and detailed further in **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, through compliance with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards outlined in CGA G-5.4. the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Therefore, the Draft EIR does not fail to meet the CEQA standard for public disclosure and informed decision-making with regard to the issues above. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-38

The commenters state that the Draft EIR does not seek or incorporate feasible mitigation measures related to air quality. However, the Draft EIR does discuss a mitigation measure related to air quality. As detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x during construction would be reduced to a less-than-significant level. Emissions during the commissioning phase of the proposed project would exceed the significance thresholds for VOCs, CO, and NO_x, and operational emissions for Vendor B (primarily related to generator startup and shutdown operations) would exceed the

significance thresholds for VOCs. Because commissioning as well as startup and shutdown operations inherently consist of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impacts would remain significant and unavoidable. The commenters suggest that the next step for the lead agency would have been to provide a statement of overriding considerations. However, the explanation is not required to be provided in the Draft EIR. As described in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. Rather, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. Therefore, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-39

The commenters conclude that the Draft EIR is legally deficient and asks that a revised or a new programmatic Draft EIR instead be prepared and circulated for public review. Based on **Response to Comment Nos. P95-1 through P95-38**, the commenters do not identify information that meets any of the criteria for revisions to or recirculation of the Draft EIR. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-40

The commenters have attached Exhibit 1 following their comment letter. Exhibit 1 includes a document prepared by PSE Healthy Energy (PSE) and titled “Assessment of LADWP’s Draft Environmental Impact Report for Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project”. Specific comments in the exhibit are included in Comment Nos. P95-41 through P95-94 and addressed in corresponding **Response to Comment Nos. P95-41 through P95-94.** No further response to this comment is required.

Response to Comment No. P95-41

PSE provides a brief summary of the project description and introduces the purpose of their report. No further response to this comment is required.

Response to Comment No. P95-42

PSE provides an overview of their concerns about the project, including those related to air quality, the health risk assessment, hydrogen infrastructure, alternatives, and capacity factors. These concerns are described in detail by PSE in Comment Nos. P95-43 through P95-94. Accordingly, PSE is referred to corresponding **Response to Comment Nos. P95-43 through P95-94** for specific responses to the concerns. No further response to this comment is required.

Response to Comment No. P95-43

PSE states that the project is located in a highly populated area with multiple sensitive receptors within a 5-mile radius. PSE states that the project would perpetuate environmental burdens for nearby communities that already experience air pollution. PSE then describes the methodology applied to conduct their analysis of such environmental burdens. This methodology includes use

of data from OEHHA, CalEnviroScreen, USEPA EJScreen, U.S. Census, and the U.S. Department of Homeland Security GIS data.

The methodologies employed in the EIR represent the state of the science and are the appropriate tools for evaluating health-related impacts associated with project air emissions. The commenter uses scores from CalEnviroScreen as the basis for their claim that the area within a 5-mile radius is overburdened with environmental stressors. Upon review, it does not appear that CalEnviroScreen supports this claim, nor does it identify the entire 5-mile area as overburdened or highly sensitive. Based on CalEnviroScreen, approximately one-third of the census tracts (32 out of 91) within the 5-mile radius referenced by the commenter are considered overburdened. The commenter states that the CalEnviroScreen score is intended "…to give insight into the vulnerability of the tract compared to other tracts in the state." However, the demographic data of the population within the 5-mile radius of the proposed project site is almost identical to the state average. In addition, the commenter does not provide a rationale for utilizing a radius of 5 miles, which is arbitrary and not grounded in an established methodology. Based on the above, there is no credible basis for utilizing the tools referenced by the commenter rather than the air dispersion modeling and HRA tools utilized in the Draft EIR, which follow the health risk assessment methodology developed by the State of California and recommended by SCAQMD for modeling environmental impacts under CEQA.

As described in **Response to Comment No. P95-32** and noted in Section 4.2, Air Quality, and Appendix B of the Draft EIR, the project's HRAs were conducted in accordance with SCAQMD Risk Assessment Procedures and the Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, the California Air Resources Board (CARB), the California Air Pollution Control Officer's Association (CAPCOA). Health risks were assessed using the Air Dispersion Modeling and Risk Tool (ADMRT) module of CARB's Hot Spots Analysis & Reporting Program (HARP2). The risk tool uses toxicity data developed by OEHHA that predicts cancer risk, non-cancer chronic, and non-cancer acute health impacts based on various exposure scenarios and pathways, such as inhalation, dermal absorption, accidental soil ingestion, consumption of homegrown fruits and vegetables. The methodology utilized for the Draft EIR's health risk assessments followed established and reputable methodology to account for project- and site-specific factors. The commenter used alternative informational sources (USEPA's EJScreen tool and Homeland Infrastructure Foundation-Level Data) to suggest that the EIR underestimates health risk impacts to nearby populations. These alternatives use similar data sources (2020 census data and OEHHA risk factors) as the tools used in preparing the analysis for the Draft EIR but do not produce health impact outputs that are compatible with SCAQMD CEQA significance thresholds established by the relevant regulatory agencies for analysis of the proposed project's impacts. For example, SCAQMD significance thresholds do not include a threshold for general morbidity, which is one of the metrics the commenter raises. In addition, these alternative tools and methodologies are not part of SCAQMD's standard methodology for analyzing air quality impacts. The methodologies used in the EIR are scientifically sound and consistent with the standards used by regulatory agencies, including SCAQMD.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-44

PSE summarizes the population and CalEnviroScreen data of the census tracts surrounding the project site. PSE includes Figure 1 of their report to depict a 5-mile radius of the project site and the surrounding census tracts based on CalEnviroScreen data. PSE also includes Table 1 of their report, which lists demographic characteristics of areas within a 5-mile radius of the project site.

A review of the commenter's analysis identified several inaccuracies or misrepresentations. Using a 5-mile radius centered at the project location, CalEnviroScreen 4.0 Data Dashboard[70] (the "Dashboard") identifies 91 census tracts. Source data for these 91 census tracts was used to verify: (1) the total population within 5 miles of the project; (2) the claim that the entire area within 5 miles of the project "… is in the top 25% of all CalEnviroScreen scores statewide …"; and (3) the numerical average percentile identified within the 5-mile radius by CalEnviroScreen. Our analysis was unable to verify commenter's results.

First, the commenter presents an inaccurate estimation of population within the 5-mile radius area. The commenter states "… approximately 386,000 people live within a 5-mile radius of Scattergood …"; however, the population of the 91 census tracts within 5 miles of the project is 435,133. Second, the representation that "… the area (within 5 miles) is in the top 25 percent of all CalEnviroScreen scores statewide, meaning that the community is already overburdened and highly sensitive to further environmental stressors …" is incorrect. Only 32 of 91 census tracts (rather than 91 of 91) have a CalEnviroScreen Score in the 75th percentile or higher. Lastly, the numerical average of CalEnviroScreen for the 91 census tracts is the 51.6th percentile, rather than the 78th percentile shown by the commenter.

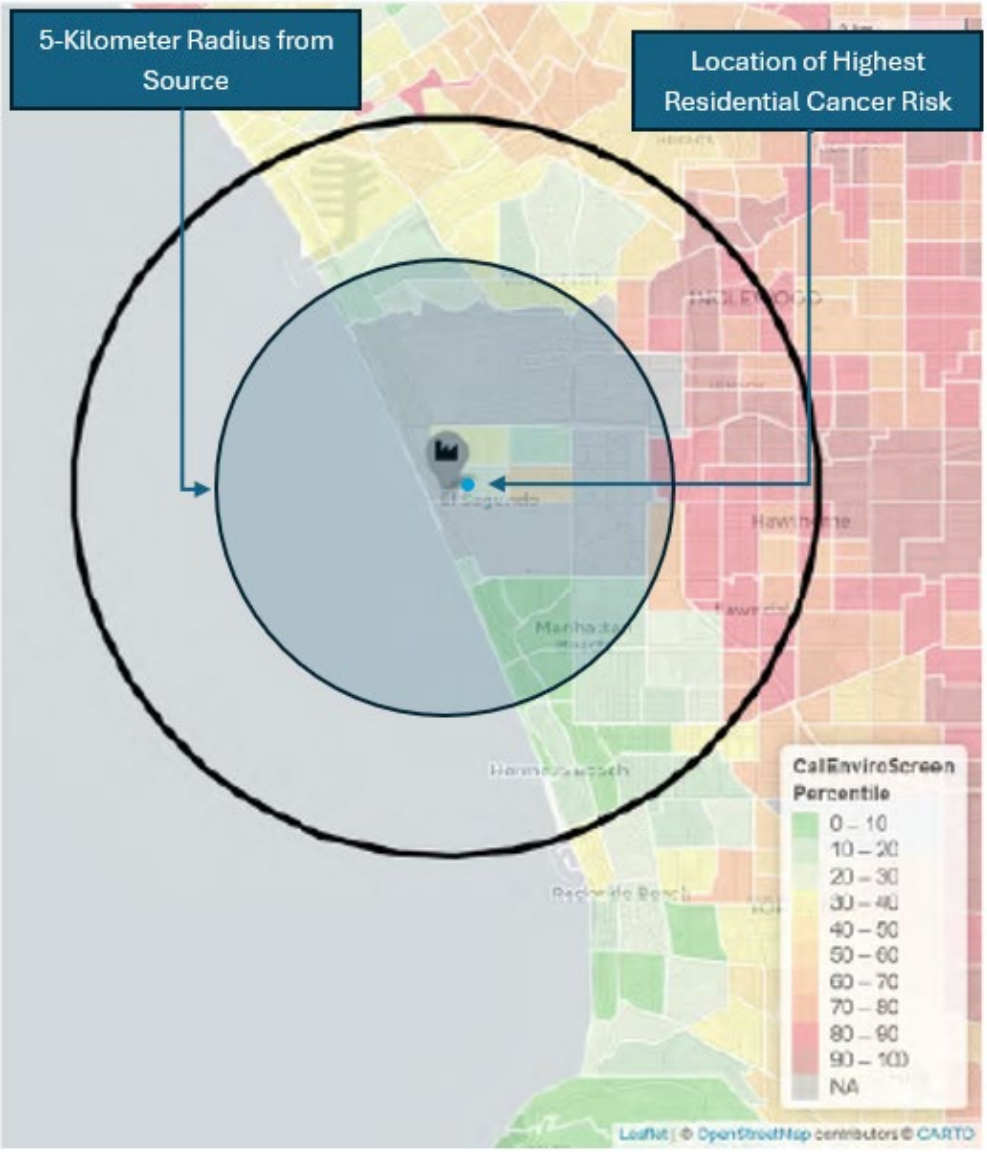
Furthermore, a health risk impact evaluation such as the one prepared for the Draft EIR identifies regions of highest impact, along with areas beyond the highest impacts which are expected to continue to have diminishing impacts. The highest impacts are determined based on the release characteristics and may include parameters such as stack height, volumetric flowrate and corresponding exhaust velocity, and exhaust temperature. The air dispersion modeling analysis conducted for the Draft EIR identified the location of the maximum impacts over a 30-year continuous exposure period to be within the first quarter-mile from the source, at the eastern fence line of the facility. Cancer risk over a highly conservative 70-year continuous exposure period declines to a low risk level (below the statistical cancer risk probability of 1-in-one-million cases) within 5 kilometers (3.1 miles) of the project. Therefore, a more appropriate region and population demographic of study would be the area within a 5-kilometer radius of the project, not the suggested 5-mile radius. However, for a conservative analysis, the air dispersion modeling conducted for the Draft EIR actually evaluated impacts out to 10 kilometers (6.2 miles), encompassing both the 5-kilometer and 5-mile radius areas. Even with this expanded radius, based on the results of the air dispersion modeling prepared for the proposed project, the Draft EIR concluded that the impacts remain less than significant, and the project would not exacerbate environmental burdens for nearby communities.

Using a 5-kilometer radius, the Air Dispersion Modeling and Risk Tool (ADMRT) prepared for the proposed project identifies a population of 66,175[71] based on 1,265 individual census tracts/blocks. The maximum residential cancer risk identified in the Draft EIR and the 5-kilometer radius is overlaid on Figure 1 of the PSE Assessment for comparison, as shown in Figure 2 below.

[70] CalEnviroScreen. 4.0 Data Dashboard. Available at: https://experience.arcgis.com/experience/6b863505f9454cea802f4be0b4b49d62/, accessed September 2025.

[71] Based on 2020 census data.

Figure 2



Overlay of Location of Highest Residential Cancer Risk and 5-Kilometer Circle on PSE Assessment Figure 1.

The 5-kilometer area includes 27 residential census tracts. The total population of these 27 census tracts is 100,980, and the numerical average of the CalEnviroScreen percentiles of these 27 census tracts is the 25th percentile (i.e., the least-burdened quartile). Based on this, the proposed project does not impact communities that are already overburdened and highly sensitive to further environmental stressors as stated by the commenter.

Based on all of the above, the commenter has not provided any evidence to show that the analysis provided in the Draft EIR, which was based on the methodology and tools recommended by the relevant regulatory agencies for analysis of the proposed project's impacts, is inadequate. No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-45

PSE includes Table 2 of their report, which lists various environmental burden characteristics of areas within a 5-mile radius of the project site. PSE states that the pollution burden of the population within a 5-mile radius is higher than 96 percent of the census tracts in the state. PSE also describes the nonattainment designations by NAAQS for parts of Los Angeles County.

A review of the commenter's technical assessment, based on the data discussed under **Response to Comment No. P95-44**, shows a numerical average of the Pollution Burden percentiles of approximately 70.9th percentile, rather than 96th percentile. In addition, our review showed that only 8 of the 91 census tracts within a 5-mile radius of the project with Pollution Burden percentile greater than 96. As stated in **Response to Comment No. P95-44**, this 5-mile radius is not substantiated as a study area, but even if it were, the Pollution Burden percentile values are dramatically lower than reported by the commenter.

With respect to commenter's assertions about NAAQS, the Draft EIR analyzed worst-case hourly, 8-hour, daily, and annual Ambient Air Quality Standards (AAQS) for potential exceedances that would occur due to the proposed project. For each of these analyses, background ambient air quality monitoring data from agency monitoring systems that establish attainment status included emissions from Scattergood.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-46

PSE expresses concern regarding $PM_{2.5}$ and emissions of ozone precursors and describes the health symptoms and impacts from exposure to such particulate matter and emissions. PSE states that quantifying the potential health impacts attributed to $PM_{2.5}$ and ozone as a result of the project is critical to understanding the project's potential impact on communities.

USEPA and CARB promulgate ozone and $PM_{2.5}$ standards as public health-protective values based on the best health data established by the scientific community. Ozone specifically is regulated indirectly through requirements for reducing emissions of VOC emissions and NO_x emissions. Any impact analysis that quantifies the incremental increase in $PM_{2.5}$, VOC, and NO_x emissions and compares these to regulatory standards, such as that which was completed for the Draft EIR, addresses the underlying health impacts related to their exposure in accordance with USEPA's and CARB's published public health and welfare protection values.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-47

PSE acknowledges the HRA conducted for the project but asserts that there are gaps in the quantification of project health impacts. PSE states that the project's analysis should have been based on the project's absolute emissions, instead of the net emissions after deducting emissions from Units 1 and 2, to show that various emissions exceed SCAQMD's 24-hour significance thresholds.

The comment asserts that the results of the HRA and the Air Quality Impact Analyses (AQIA) in Appendix B of the Draft EIR (referred to as the "Draft EIR Appendix B") are based on the difference between the proposed project's emissions and the emissions from Units 1 and 2, citing Draft EIR Table 4.2-14. This is not the case. Draft EIR Table 4.2-14 shows the project's mass daily

emissions, while combusting 100 percent natural gas, and the baseline mass daily emissions from Units 1 and 2 and compares the resulting net emissions to SCAQMD's Mass Daily Thresholds. Net emissions are the proper metric for the mass daily emissions component of the air quality analysis because they represent the incremental change, which is the CEQA standard for determining significance. However, this daily emissions comparison is entirely separate and distinct from the HRA and the AQIA and is related to regional air quality, whereas the HRA and the AQIA are related to local air quality.

In fact, for a conservative analysis, the HRA and the AQIA account for 100 percent of the project's emissions without any reduction or difference between the project's emissions and the current emissions from Units 1 and 2. Each analysis assumes emissions throughout the time period corresponding to each standard. Specifically, Section 4.5.4 of the Draft EIR Appendix B describes the approach taken to ensure that Toxic Air Contaminant (TAC) emissions are a conservative representation of emissions assuming project operation for a full 8,760 hours annually, and the footnotes to Draft EIR Tables 4.2-22 through 4.2-27 describe that the 1-hour, 8-hour, 24-hour, and annual emissions are a representation of potential emissions assuming project operation for 1-hour, 8-hours, 24-hours, and a full year. Thus, the commenter is incorrect and there are no gaps in the analysis.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-48

PSE states that the project's HRA and modeling analysis does not consider the project's impact on annual $PM_{2.5}$ concentrations in the county as compared to national and federal air quality standards. PSE also states that the project analyses did not assess health impacts from the project's contributions to secondary $PM_{2.5}$ and ozone formation.

USEPA continually refines and strengthens the NAAQS for $PM_{2.5}$ to protect the public from harmful and costly health impacts, such as heart attacks and premature death. USEPA sets the primary (health-based) $PM_{2.5}$ standard to provide increased public health protection, consistent with the available health science.

Due to the region's non-attainment of the NAAQS and CAAQS $PM_{2.5}$ standards, any ambient air modeling by an agency or a facility would by default continue to result in non-attainment. Therefore, the SCAQMD, following USEPA's guidance for non-attainment pollutants, has established significant change thresholds, also known as Significant Impact Levels (SIL) to determine a project's impact for CEQA purposes. SCAQMD's March 2023 *South Coast AQMD Air Quality Significance Thresholds*[72] provide an annual threshold for PM_{10} but not $PM_{2.5}$. In reference to the nonattainment status of both PM_{10} and $PM_{2.5}$, SCAQMD's *South Coast AQMD Modeling Guidance for AERMOD*[73] was updated near the beginning of 2025 to state that "modeled maximum 24-hour and annual concentrations should be compared directly to the significant change thresholds of 2.5 and 1.0 micrograms/cubic meter, respectively." $PM_{2.5}$ is a subset of PM_{10} and, for a gas turbine combusting natural gas, it is standard to assume that $PM_{2.5}$ is equivalent to PM_{10} in its particle distribution. It is reasonable to assume the same is true for a

[72] South Coast Air Quality Management District. Significance Thresholds. Available at: https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=f7601d61_25.

[73] South Coast Air Quality Management District. South Coast AQMD Modeling Guidance for AERMOD. Available at: https://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance#Background. Accessed September 16, 2025.

gas turbine combusting natural gas and hydrogen, as the addition of hydrogen to the fuel mix would not alter the particle distribution pattern of $PM_{2.5}$ or PM_{10}.

Based on these assumptions, the annual $PM_{2.5}$ impacts associated with the annual direct $PM_{2.5}$ emissions from the project source are identical to the annual PM_{10} impact from Draft EIR Tables 4.2-22 through 4.2-27[74], all of which are less than the 1.0 microgram/cubic meter identified by SCAQMD as the significant change threshold for $PM_{2.5}$.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-49

PSE states that the Draft EIR did not evaluate long-term and cumulative health impacts from $PM_{2.5}$ exposure. PSE states that the project's analysis should include background $PM_{2.5}$ concentrations for an accurate comparison to the NAAQS and CAAQS 24-hour and annual average $PM_{2.5}$ standards, which would provide a more complete assessment of cumulative impacts from the project on an already environmentally overburdened county.

This comment expands on the statements from **Comment No. P95-47** related to an apparent misinterpretation of the approach used to prepare the AQIA and repeats the incorrect statement from **Comment No. P95-48** that the HRA and the AQIA in the Draft EIR Appendix B do not consider the effect of the Project's annual $PM_{2.5}$ emissions on ambient $PM_{2.5}$ concentrations. Please see responses to those comments regarding those statements.

The comment claims that "… the DEIR's comparison to SCAQMD significance thresholds did not include existing background concentration levels of $PM_{2.5}$ …" The background $PM_{2.5}$ concentration from regional monitors is shown in the Draft EIR Appendix B Table D.1. As explained in **Response to Comment No. P95-48**, due to regional nonattainment status, SCAQMD guidance provides that project impacts must be compared to significant change thresholds as opposed to combining them with background concentrations. A comparison of SCAQMD significance thresholds to an emission rate that includes both project emissions and background concentrations or background emission rates of $PM_{2.5}$ would be an inappropriate comparison to the significance thresholds because the background concentrations do not represent a project's incremental change.

The comment further claims that "… the comparisons to thresholds reported in the Draft EIR are based on the difference between modeled and current Unit 1 and 2 emissions which obscures the true impact the Project will have on air quality …" This claim misinterprets the approach taken to prepare the AQIA. The AQIA results shown in Draft EIR Tables 4.2-22 through 4.2-27 consider emissions from the project only, and not the difference between the project's emissions and the emissions from the existing Units 1 and 2.

The comment also states that "… the DEIR must include background $PM_{2.5}$ concentrations for an accurate comparison to the NAAQS and CAAQS 24-hour and annual average $PM_{2.5}$ standards …" Background $PM_{2.5}$ concentration from regional monitors are shown in the Draft EIR Appendix B Table D.1. Consistent with **Response to Comment No. P95-48**, due to regional nonattainment status, project impacts are compared to significant change thresholds as opposed to an approach that includes background concentrations. It is appropriate to use significance change thresholds

[74] Vendor A: 0.23 ug/m^3 while combusting natural gas and 0.22 ug/m^3 while combusting natural gas and hydrogen; Vendor B: 0.19 ug/m^3 while combusting natural gas or natural gas and hydrogen; Vendor C: 0.55 ug/m^3 while combusting natural gas or natural gas and hydrogen.

for analyzing nonattainment pollutants such as $PM_{2.5}$ because they represent the maximum incremental change from the project.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-50

PSE asserts that the Draft EIR did not evaluate health impacts from secondary $PM_{2.5}$ and ozone formation. The comment also provides general statements related to the precursors of secondary $PM_{2.5}$ and ozone, claims related to precursors emitted from the project source relative to the Unit 1 and 2 baseline, and concludes by stating that "… no environmental assessment in this area should ignore secondary $PM_{2.5}$ and ozone pollution." See **Response to Comment No. P95-47** regarding the incorrect claim that the project emissions were assessed only after the emissions from Units 1 and 2 were deducted. See **Response to Comment Nos. P95-48 and P95-49** regarding the incorrect claims that the Draft EIR did not properly assess the impacts related to $PM_{2.5}$ and ozone.

This comment refers to the "… potential increase in NO_x emissions from introducing hydrogen to the fuel blend …" This statement does not account for the fact that Scattergood is subject to Federal Lowest Achievable Emission Rate (LAER) emission standards. Current Federal LAER for NO_x for a Combined Cycle Gas Turbine operating on natural gas is currently 2.0 ppmv @ 15 percent O_2. It is unlikely that the Federal LAER standard will be increased for turbines operating on a blend of natural gas and hydrogen because it would represent a lessening of current regulatory standards. In addition, according to the DOE, "Because hydrogen burns at higher temperatures than natural gas, combustion of pure hydrogen may result in comparably higher NO_x emissions. However, this may be offset by the fact that hydrogen has a larger stable combustion temperature range, meaning a higher ratio of air to fuel can be used. This additional air effectively dilutes the hydrogen, which cools off the flame and results in lower-temperature combustion, thereby reducing the amount of NO_x emissions produced. Current research has shown that hydrogen combustion via turbines can achieve comparable performance and NO_x emissions to those of today's turbines running on natural gas."[75] The proposed project as designed would result in less than significant levels, as is reflected in the performance data for the CCGS from all three vendors analyzed in the Draft EIR.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-51

PSE states that their analysis fills in gaps of the Draft EIR's HRA and modeling analysis by evaluating the potential health impacts of long-term (i.e., annual) exposure to $PM_{2.5}$ (primary and secondary) and ozone associated with the project's emissions. However, PSE states that their analysis is limited since no details on the assumptions and methods used in estimating the project emissions for both fuel options are provided. PSE questions 1) whether emission factors were determined using modeling, laboratory or site testing, or a combination of both, 2) whether emissions factors were verified by an independent party, and 3) what uncertainty or confidence intervals exist for reported emissions.

[75] U.S. Department of Energy. Hydrogen and Fuel Cell Technologies Office. "Does the use of hydrogen produce air pollutants such as nitrogen oxides?" Available at: https://www.energy.gov/eere/fuelcells/does-use-hydrogen-produce-air-pollutants-such-nitrogen-oxides, accessed September 2025.

Such issues were first raised above in **Response to Comment No. P95-34**. As detailed therein, the Units 8 and 9 permit applications and the Draft EIR analyses each used the same emissions factors provided by the vendors. The vendors are required to provide emissions/performance guarantees that comply with SCAQMD regulations as a condition of the permit to operate issued by SCAQMD. Because of this requirement to comply with SCAQMD regulations, the emissions factors provided by the vendors are likely conservative and may be expected to be lower in actuality than reflected in the EIR. Nonetheless, even using these conservative emissions factors, impacts to air quality were found to be less than significant, with the exception of the short-term temporary impacts related to the CCGS commissioning phase, as noted in Section 4.2 of the Draft EIR.

Response to Comment No. P95-52

PSE comments that health risk impacts related to hydrogen transportation and resulting increased truck traffic were not assessed in their analysis because such emissions were not provided in the Draft EIR, which PSE finds concerning. As addressed in **Response to Comment P95-5** and **Topical Response No. 2 – Hydrogen**, the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project.

While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. While truck delivery of hydrogen to Scattergood is unlikely given the large volume of hydrogen that would be required during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. As previously described, the hydrogen infrastructure, including transportation, will be analyzed in a separate environmental review and approval process by the appropriate lead agency when the necessary information to support an adequate analysis of potential environmental impacts is available. Therefore, no further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-53

PSE briefly describes the InMAP tool used by commenter to model health impacts of the proposed project, their use of a concentration-response function, and how they quantified the monetary value of estimated mortality. The comment introduces InMAP as a tool capable of estimating changes in annual ambient $PM_{2.5}$ concentrations from emissions of direct $PM_{2.5}$ and its precursors and, from that information, the effect of those changes in annual ambient $PM_{2.5}$ concentrations on premature mortality. The comment also includes the reference for the 'concentration-response function' and the Value of a Statistical Life (VSL) used in the analysis.

The comment does not indicate whether InMAP is agency-approved for conducting a Health Impact Assessment. Our review of the InMAP tool indicates that this model was first published as a peer-reviewed document in 2017 by individuals not affiliated with any agency responsible for air quality and public health. Use of InMAP could not be tied to any regulatory process or methodology, or determination of health-based impacts used as predictors in public health protection or development of AAQS.

According to the comment, the 'concentration-response function' used in the analysis is from an article titled *Air Pollution and Mortality in the Medicare Population*. As indicated in the article's

title, the study evaluated "… a nationwide cohort study involving all Medicare beneficiaries from 2000 through 2012 …" The comment does not provide the basis for selecting an article that evaluated only Medicare beneficiaries.

This comment does not present a valid alternative to the methodologies utilized in the EIR which are based on established regulatory standards. OEHHA, the state agency charged with evaluating potential health risks to residents of California, establishes toxicity factors and cancer risk potency values on epidemiological data extrapolated through dose-response curves. The epidemiological studies used by OEHHA to develop dose-response curves consider exposure through inhalation (concentration) as well as other potential pathways for adverse health impacts, such as organs and human body system (respiratory system, circulatory system, etc.). These OEHHA epidemiological studies established a comprehensive and approved basis for the preparation of the HRA in the Draft EIR. The commenter provides unsubstantiated rationale that does not support use of the InMAP tool as a substitute for the accepted methodologies used to prepare the project HRA.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-54

PSE describes their use of the InMAP tool to model annual $PM_{2.5}$-related mortality impacts and how they estimated emissions based on capacity factors of 10, 25 and 40 percent. PSE notes that to provide a more comprehensive evaluation of the project's health impacts, they supplemented the InMAP analysis with an assessment using the COBRA tool. PSE includes a table that summarizes the annual VOC, NO_x, SO_x, and $PM_{2.5}$ emissions used in their InMAP and COBRA analysis. Specifically, the table shows these annual emissions for Vendors B and C based on 100 percent natural gas, a blend of 70 percent natural gas and 30 percent hydrogen, and capacity factors of 10, 25 and 40 percent.

This comment cites 25 percent as a capacity factor that reflects historical operations of Units 1 and 2: "… The 25 percent capacity factor reflects the historical operation of Units 1 and 2 …". The basis for this statement appears to be the following sentence found on page 3-17 of Section 3.5.3 of the Draft EIR: "… This proposed capacity factor would be substantially lower than the approximately 25 percent average annual capacity factor for the past 8 operating years (2016-2023) since Scattergood Units 4, 5, 6, and 7 were placed into operation …" This 25 percent average annual capacity factor refers to the entire facility rather than Units 1 and 2. In fact, for impact determination purposes, the analyses in the Draft EIR conservatively assumed a 100 percent annual capacity factor for the proposed CCGS (i.e., 8,760 hours), with one cold start per day, one shut down per day, and the balance of daily operations at full load. Even under this entirely implausible scenario, the health impacts remained less than significant, and it renders the 10, 25, and 40 percent capacity factors suggested by the commenters meaningless.

Applying arbitrary operating scenarios, as the commenter has done, does not appropriately reflect either the proposed project operation or emissions from individual pollutants, including those which contribute to ground-level ozone and secondary $PM_{2.5}$ formation.

In addition, the COBRA tool is not intended to be used for individual projects. The 'Who Can Use COBRA?' section of the current version of the user manual[76] describes uses that are relevant for

[76] USEPA. 2025. User's Manual for the Co-Benefits Risk Assessment Health Impacts Screening and Mapping Tool (COBRA), Version 5.2. Available at: https://www.epa.gov/system/files/documents/2025-03/cobra-user-manual-v5.2.pdf.

policy changes rather than analysis of individual project impacts.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-55

PSE repeats the claim related to higher NO_x emissions when burning a blend of natural gas and hydrogen and references Tables 4, 5, and 6. The commenter is referred to **Response to Comment No. P95-50**. This statement does not account for the fact that Scattergood is subject to Federal LAER emission standards. Current Federal LAER for NO_x for a CCGS operating on natural gas is currently 2.0 ppmv @ 15% O_2, and the Federal LAER standard is not likely to be increased for turbines operating on a blend of natural gas and hydrogen because it would represent a lessening of current regulatory standards.

The comment contains several statements that imply that it is unusual for emissions while combusting natural gas to be similar to emissions while combusting a blend of natural gas and hydrogen. This is not unusual. Scattergood is subject to Federal LAER emission standards. Current Federal LAER for NO_x, CO, and VOC for a CCGS operating on natural gas is currently 2.0 ppmv @ 15% O_2, 1.5 ppmv @ 15% O_2, and 2 ppmv @ 15% O_2, respectively. These same standards would apply to the scenario with the project's source operating on a blend of natural gas and hydrogen. With the small difference in dry volumetric stack flow at standard conditions between natural gas and a blend of natural gas and hydrogen, one would expect a small difference in post-control emissions of NO_x, CO, and VOC.

The commenter states that impacts from the proposed project would result in 2.2 to 2.7 annual $PM_{2.5}$-related mortalities nationwide based on their use of InMAP and COBRA data. This estimate would remain for 30 years at a 25 percent capacity factor. The commenter does not address this number relative to background, i.e., the total number of mortalities in a given year without emissions from the project source. Further, nationwide mortality rates cannot be accurately applied to assess impacts of a local project; nor can a tool that does not provide localized mortality rates. The model used by the commenter is therefore not as accurate as the localized modeling that was conducted for the HRA in the Draft EIR.

No revisions to the Draft EIR are required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-56

PSE expresses support for renewable technologies such as fuel cells and energy storage systems and expresses concern that, if not adequately controlled, NO_x emissions produced from hydrogen combustion may diminish the air quality benefits gained from reducing fossil fuel combustion. PSE states that based on their analysis, the CCGS's use of a natural gas and hydrogen blend would not likely improve air quality, and its emissions of toxic pollutants and $PM_{2.5}$ precursors would remain on par with those observed under a 100 percent natural gas scenario. As such, PSE recommends exploring alternative renewable energy options, such as those discussed in Section 6 of their report, which is bracketed as Comment Nos. P95-67 through P95-83. Accordingly, the commenter is referred to corresponding **Response to Comment Nos. P95-67 through P95-83** for specific responses to PSE's concerns regarding alternatives.

PSE also notes that transporting hydrogen by truck to the facility would exacerbate air pollution. However, as described in **Response to Comment P95-52** and **Topical Response No. 2 – Hydrogen**, while truck delivery of hydrogen to Scattergood is unlikely given the large volume of hydrogen that would be required during operation of the CCGS, the environmental impacts of

transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Hydrogen infrastructure, including the potential transportation of hydrogen, will be analyzed in a separate environmental review and approval process by the appropriate lead agency when the necessary information to support an adequate analysis of potential environmental impacts is available. Therefore, no further response to this concern is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-57

PSE includes Table 4 of their report, which summarizes results of PSE's InMAP modeling. Specifically, the table shows the annual statistical mortality and associated monetary value for Vendors B and C based on 100 percent natural gas, a blend of 70 percent natural gas and 30 percent hydrogen, and capacity factors of 10, 25 and 40 percent. The inability of InMAP modeling based on national mortality rates to accurately assess localized mortality rates for the proposed project is specifically addressed in the context of Comment No. P95-55. As such, the commenter is referred to corresponding **Response to Comment No. P95-55**. No further response is required.

Response to Comment No. P95-58

PSE includes Figure 2 of their report, which includes two maps that depict the spatial distribution of annual per capita health impacts from the project and operation at a 25 percent capacity factor. The maps are from PSE's InMAP model runs using emissions in Table 3 of the report (see Comment No. 54) and include only mortality as a health outcome. One map is based on Vendor B data and 100 percent natural gas, and the other map is based on Vendor B data and blend of 70 percent natural gas and 30 percent hydrogen. As PSE's Figure 2 and the deficiencies in the InMAP model are specifically referenced in the context of Comment No. P95-55, the commenter is referred to corresponding **Response to Comment No. P95-55**. No further response is required.

Response to Comment No. P95-59

PSE includes two graphics that purport to depict the spatial distribution of total health impacts from the project and operation at a 25 percent capacity factor, which are based on PSE's InMAP model runs using emissions in Table 3 of the report (see Comment No. P95-54), and include only mortality as a health outcome. One graphic is based on Vendor B data and 100 percent natural gas, and the other graphic is based on Vendor B data and blend of 70 percent natural gas and 30 percent hydrogen. The commenter is referred to corresponding **Response to Comment Nos. P95-54** and **P95-55** for discussion of the limitations of the InMAP model in assessing localized project impacts. No further response is required.

Response to Comment No. P95-60

PSE includes Tables 5 and 6 of their report to list health impact estimates based on use of COBRA. Table 5 shows annual health impacts associated with Vendor B's 100 percent natural gas scenario, based on use of COBRA data and a 25 percent capacity factor. Table 6 shows annual health impacts associated with Vendor B's 100 percent natural gas scenario, based on use of COBRA data and a 40 percent capacity factor. As PSE's Tables 5 and 6 are specifically referenced in Comment No. P95-55, the commenter is referred to corresponding **Response to Comment No. P95-55**. It should also be noted that the commenter does not address these numbers relative to background (i.e., the total number of incidents nationwide in a given year without emissions from the project source), which does not allow for an evaluation of the project's individual contribution to the incidents. No further response is required.

Response to Comment No. P95-61

PSE states that the Draft EIR does not adequately address the potentially significant impacts of green hydrogen within this project because it does not include the installation of the infrastructure for the production, delivery, and storage of hydrogen. PSE is referred to **Response to Comment No. P95-5** and **Topical Response No. 2 – Hydrogen** for a discussion on the environmental impacts associated with the infrastructure related to production, storage, and transportation of hydrogen. No further response is required.

Response to Comment No. P95-62

PSE states that the Draft EIR does not assess the impacts of the planned conversion of the CCGS to burn 100 percent hydrogen fuel and points to a statement from the SLTRP that describes LADWP's plans to use 100 percent hydrogen for all in-basin combustion by 2035. As described in **Response to Comment No. P95-34**, the proposed project as presented in the Draft EIR provides for a fuel mix of 70 percent natural gas and 30 percent hydrogen, because that is the fuel blend that LADWP anticipates utilizing for project operations. The fuel mixes analyzed in the EIR represent LADWP's reasonable expectations about facility operations. In addition, any increase in the hydrogen percentage above 30 percent would require an amendment to the facility's SCAQMD permit and additional CEQA review. As such, the Draft EIR's analysis for the defined project description is adequate, and no revisions to the Draft EIR are necessary. No further response is required for this issue.

Response to Comment No. P95-63

PSE expresses concern regarding the ability for hydrogen blends to reduce CO_2 emissions when compared to natural gas and states that specific levels of emission reduction can only be achieved if the hydrogen used is produced entirely with clean energy. PSE also states that GHG emission reductions from using a fuel mix may be offset by the emissions generated when transporting hydrogen to the facility and/or the impact of hydrogen leakage; thus, PSE states that hydrogen transport and leakage must be assessed.

Such concerns were addressed in **Response to Comment No. P95-36**. As described therein and in Section 4.3, Greenhouse Gas Emissions of the Draft EIR, the main source of GHG emissions from project operations would be the combustion turbine of the CCGS, which would result in higher GHG emissions when run with 100 percent natural gas than a natural gas/hydrogen fuel blend. Based on the analysis, even when run with 100 percent natural gas, the project would not conflict with or obstruct regional and state-wide goals to reduce GHG emissions and climate change impacts, and GHG impacts would be less than significant.

Furthermore, as discussed in **Response to Comment No. P95-36** and **Topical Response No. 2 – Hydrogen**, the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how production would occur, and how it would be delivered to Scattergood. While truck delivery of hydrogen to Scattergood is unlikely given the large volume of hydrogen that would be required during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Furthermore, no on-site storage of hydrogen is anticipated

for the proposed project. Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public. As such, the hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available. LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the proposed project. Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the impacts related to the combustion of such a fuel mixture are analyzed in the Draft EIR. As discussed above in **Response to Comment No. P95-11** and detailed further in **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, through compliance with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards outlined in CGA G-5.4. the project's on-site hydrogen operational activities would not create significant hydrogen leakage that has the potential to indirectly increase GHGs in the atmosphere.

PSE also states that hydrogen's warming effect may be 22.3 to 52.4 times more than CO_2 over a 20-year period and cites to a report identified in footnote 52 of the PSE Report. This citation to 20-year emissions is misleading, as it is customary to calculate GHG emissions using the GWP over a 100-year period (GWP100). In fact, the GWP100 for hydrogen is cited in the article under footnote 52 as 11.6 +/- 2.8. Therefore, hydrogen's warming effect over the timescale typically used for emission calculations is approximately one-half of that stated by the commenter. For reference, the corresponding values for methane are 81-83 over a 20-year period (https://www.epa.gov/ghgemissions/understanding-global-warming-potentials) and 28 over a 100-year period (40 CFR 98 Subpart A Table A-1).

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-64

PSE expresses concern that LADWP does not discuss the potential environmental impacts of hydrogen infrastructure beyond those related to the construction of the hydrogen-capable turbine and the air pollution impacts of combusting a 70 percent natural gas and 30 percent hydrogen fuel mix. PSE states that air pollution and GHG impacts of using higher percentages of hydrogen are not discussed in the Draft EIR.

As described in **Response to Comment No. P95-62**, the proposed project as presented and analyzed in the Draft EIR could include a fuel mix of up to 70 percent natural gas and 30 percent hydrogen. The fuel mixes analyzed in the EIR represent LADWP's reasonable expectations about facility operations. In addition, any increase in the hydrogen percentage above 30 percent would require an amendment to the facility's SCAQMD permit and additional CEQA review. As such, the Draft EIR's analysis for the defined project description is adequate, and no revisions to the Draft EIR are necessary. With regard to other concerns about hydrogen infrastructure, PSE is referred to **Response to Comment No. P95-36** and **Topical Response No. 2 – Hydrogen**, which detail that the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. As such, the hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available.

LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the proposed project.

Therefore, no further response to this comment is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-65

PSE elaborates on concerns regarding production, transport, and storage of green hydrogen. These concerns have been addressed in detail in **Response to Comment No. P95-11, Response to Comment No. P95-36**, and **Topical Response No. 2 – Hydrogen**. As detailed therein, the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. While it is anticipated that a sufficient market supply of green hydrogen may be available to support the proposed project's dual-fuel CCGS when it is fully commissioned by the end of 2029, the details of how and where the hydrogen would be manufactured are entirely speculative at this point. Specifically, it is unknown where the hydrogen might be produced, how production would occur, and how it would be delivered to Scattergood. While truck delivery of hydrogen to Scattergood is unlikely given the requirements for hydrogen during operation of the CCGS, the environmental impacts of transport via truck would also be entirely speculative, as there is no way to know the source of the hydrogen, what routes might be used, the types of trucks necessary, or the amount that would be delivered. Furthermore, no on-site storage of hydrogen is anticipated for the proposed project. Similarly, impacts associated with the construction and operation of a pipeline delivery system would vary widely depending on the proposed location. Discussion of these impacts would be entirely speculative and would therefore be of little to no informational value to decisionmakers and the public. As such, the hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available. LADWP would not implement or operate this hydrogen infrastructure but would be a purchaser of hydrogen to supply the proposed project.

PSE's concern related to hydrogen-related leakage and embrittlement is also addressed in **Response to Comment No. P95-11** and **Topical Response No. 2 – Hydrogen**.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-66

PSE expresses concern that the proposed CCGS's natural gas/hydrogen blend capability and turbines that operate with 100 percent hydrogen are new technologies and operationally risky. PSE states that alongside new safety measures, new pipelines and the associated environmental impacts of construction would be required for the safe transport and use of hydrogen.

As previously detailed above and in **Response to Comment No. P95-11, Response to Comment No. P95-36**, and **Topical Response No. 2 – Hydrogen**, the green hydrogen system that would supply the proposed project has not yet been identified; therefore, the installation of the infrastructure for the production, delivery, and storage of hydrogen is not included in the scope of the proposed project. Such hydrogen infrastructure will be analyzed in a separate environmental review and approval process when the necessary information to support an adequate analysis of potential impacts is available. No further response to this particular concern is required.

With regard to the project's hydrogen-ready on-site system, the commenter is referred to **Response to Comment No. P95-11, Topical Response No. 2 – Hydrogen**, as well as Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. The project's on-site hydrogen system, including the proposed CCGS, would be designed, constructed, protected, maintained, and operated in accordance with regulatory requirements for hydrogen piping and pipelines pursuant to NFPA 2–Hydrogen Technologies Code and ASME B31.12–Hydrogen Piping and Pipelines and standards outlined in CGA G-5.4–Standard for Hydrogen Piping Systems at User Locations. The project would implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed, installed, inspected, and tested in accordance with the pressure piping and gas safety requirements. The project's hydrogen pipelines would also be designed, constructed, operated, and maintained to account for the hydrogen embrittlement of carbon and low alloy steels and other materials. The project's hydrogen system would undergo extensive testing and inspection prior to operation and after completion of examinations and repairs to ensure hydrogen leaks would not occur. Tests would include, but not be limited to, hydrostatic leak tests, pneumatic leak tests, and sensitive leak tests. In addition, hydrogen gas and fire detectors and sensors would be installed to detect gas leakages, sound alarms, and/or activate shutdown if needed. Therefore, through compliance with regulatory requirements of the NFPA 2 and the ASME B31.12 and the standards outlined in CGA G-5.4. the project's on-site hydrogen operational activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Accordingly, the Draft EIR addressed the safety concerns raised by PSE (i.e., flammability, embrittlement, pressure, leakage) with regard to the project's on-site hydrogen system.

The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-67

PSE summarizes its concerns regarding use of hydrogen from Comment Nos. P95-61 through P95-66. Accordingly, the commenter is referred to the corresponding **Response to Comment Nos. P95-61 through P95-66**. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-68

PSE reviews the alternatives discussed in the Draft EIR and agrees that the No Project Alternative is not a good alternative and development of local energy assets should be pursued at Scattergood. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-69

PSE states that a battery energy storage system (BESS) at the project site needs additional consideration as an alternative because it can meet the project goals and avoids environmental impacts of the project. PSE states higher densities of energy storage are possible using proven technologies, and provides examples of battery technologies and their expected storage capacity. Furthermore, PSE questions the energy storage capacity calculations in the Draft EIR and suggests LADWP consider an alternative with a denser BESS configuration. Such concerns were addressed in **Response to Comment No. P95-27** which discusses the considerations for the energy storage alternative. Please also see **Topical Response No. 4 – Alternatives** for further discussion. No further response is required.

Response to Comment No. P95-70

PSE suggests higher density energy storage technologies be considered as an alternative and provides examples of existing technologies which provide higher capacity and densities, and provides suggestions for how BESS can be configured at Scattergood. These suggestions were addressed in **Response to Comment No. P95-27**. Specifically, the higher density, duration, and capacity examples suggested by the commenter are all in the early demonstration phase without multi-MW installations and multiple years of commercial operation, or without multiple vendors representing a robust supply chain. Additionally, energy storage as an alternative for the proposed project cannot be implemented by 2030 given there is insufficient land available at Scattergood for batteries to provide a full replacement alternative for the proposed project and based on the uncertainty associated with acquisition of land located near Scattergood.

LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be deployed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. However, such energy storage has independent utility from the proposed project, and, furthermore, due to space constraints at Scattergood, energy storage could not be implemented within the station until after completion of the proposed CCGS because the only available property would be used as the staging area for the proposed project construction-related laydown, storage, parking, and administration. No further response is required.

Response to Comment No. P95-71

PSE states that a BESS could meet peak demand, similar to the project, if the project is expected to operate at the capacity described in the Draft EIR. Such concerns were addressed in **Response to Comment No. P95-27**. Specifically, a typical BESS is limited in the operational duration and not a source of firm dispatchable generation, whereas a CCGS is a generation source that is always available and dispatchable to meet peaks in demand or major interruptions caused by emergency circumstances, making the CCGS better able to achieve the project's reliability objectives. No further response is required.

Response to Comment No. P95-72

PSE also acknowledges that BESS has a fire risk, but safety standards have rapidly improved for the developing technologies. As discussed in Section 5.6.2 of the Draft EIR, the BESS Alternative would include safety controls to avoid and prevent fires. These include a storage enclosure to allow for thermal control of the system, and a battery and energy management system which ensures the battery's optimal and safe operation. Additionally, the BESS Alternative would include multiple safety monitoring systems such as fire suppression, smoke detection, and temperature control systems to prevent fire and hazardous incidents. No further response is required.

Response to Comment No. P95-73

PSE states that BESS provides advantages, such as ease of installation and scalability, that should be considered. As discussed in **Response to Comment No. P95-27**, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's LA100 Plan (formerly SLTRP). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be deployed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. However, a typical BESS is limited in the operational duration and not a source of firm dispatchable generation, whereas a CCGS is a

generation source that is always available and dispatchable to meet peaks in demand or major interruptions caused by emergency circumstances. No further response is required.

Response to Comment No. P95-74

PSE agrees that fuel cells as an alternative are an unproven technology for the scale and size of the project. PSE refers to Section 5 of its report for further discussion on impacts of fuel cells. Responses to comments raised in Section 5 of the PSE report are provided in **Responses to Comments Nos. P95-61 through P95-67**. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-75

PSE states that the alternative to eliminate Vendor B is largely the same as the project and choosing an alternative that is significantly different from the project would provide a much higher degree of differences between impacts. As discussed in Section 5.6.4 of the Draft EIR, Alternative 4: Eliminate Vendor B is technically feasible and meets all of the project objectives while reducing significant and unavoidable peak daily emissions for volatile organic compounds (VOCs) during operations related to the combustion generator startup and shutdown, even during operations with a hydrogen fuel mix. This alternative has been determined to be the environmentally superior alternative because it would result in the least impact to the physical environment that can be reasonably ascertained. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-76

PSE includes an introductory sentence to comments regarding the alternatives considered but dismissed from consideration. The comment does not address the adequacy of the Draft EIR, and no further response is required.

Response to Comment No. P95-77

PSE states that demand-side management can be an important component to help supply the same capacity as the project, especially with increased adoption, and can meet the project's goal of managing demand in the Scattergood service area. PSE refers to Section 6c of its report for further discussion of demand-side management and managing "energy demand in the Scattergood service area, which includes Los Angeles International Airport, Hyperion Water Reclamation Plant, and the western districts of the City of Los Angeles."

The commenter is referred to **Response to Comment Nos. P95-23 and P95-28**. Demand side management programs, along with alternative in-basin clean energy generation and new and upgraded transmission lines, represent zero emission alternatives and they are already being implemented by LADWP. They are complementary to the proposed project and would continue as planned whether or not the project is implemented. These alternatives are accounted for in the SLTRP as a necessary step for maintaining a reliable system that is less dependent on combustion generation; however, the proposed project's objectives are to provide resilience to help the electrical power system meet peak demand that exceeds available renewable generation resources and energy storage capacity and during infrequent and relatively short-term but major interruptions in the primary carbon-free generation and/or transmission system caused by emergency circumstances. These alternatives would not meet this critical objective of the project. Therefore, these alternatives are appropriately excluded from consideration among the alternatives considered in the EIR. For specific responses to Section 6c of the PSE report, the commenter is referred to **Response to Comment Nos. P95-80 through P95-86**. For specific responses to Section 6d of the PSE report which discusses managing local demand-side

generation, the commenter is referred to **Response to Comment Nos. P95-87 through P95-91**. No further response is required.

Response to Comment No. P95-78

PSE states that rooftop solar photovoltaic (PV), when combined with energy storage, can aid in meeting the goals of the project. PSE refers to Section 6c of the report for further discussion of demand-side management. The commenter is referred to **Response to Comment No. P95-77**. No further response is required.

Response to Comment No. P95-79

PSE states that LADWP should consider transmission upgrades paired with strategically sited BESSs to meet in-basin peak demand. As discussed in Section 1.3.3, Project Characteristics, of the Draft EIR, in the event transmission assets become unavailable due to emergency circumstances (e.g., the temporary loss of critical renewable energy transmission lines caused by wildfire or earthquake), the dispatchable power generation provided by the proposed CCGS would be critical during stressed grid conditions. Further, as discussed in **Response to Comment No. P95-77**, new and upgraded transmission lines are already being implemented by LADWP. They are complementary to the proposed project and would continue as planned whether or not the project is implemented. Additionally, as discussed in **Response to Comment No. P95-73**, energy storage throughout the LADWP service area is already accounted for and is a major component in LADWP's LA100 Plan (formerly SLTRP). LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be deployed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. No further response is required.

Response to Comment No. P95-80

PSE includes an introductory sentence to comments regarding the NREL Alternatives Report's findings. The comment does not address the adequacy of the Draft EIR, and no further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P95-81

PSE concurs with the NREL Alternatives Report's Finding #1 that new dispatchable capacity is needed. However, the commenter suggests an energy storage alternative would also be able to meet this goal while avoiding the project's negative impacts. The commenter is referred to **Response to Comment No. P95-71**. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P95-82

PSE concurs with the NREL Alternatives Report's Finding #2 that new or upgraded transmission alone would not replace the capacity at Scattergood. However, the commenter believes there is significant risk that the project would not be fully operational by the end of 2029. As discussed in Section 3.5.2, Project Construction, of the Draft EIR, construction of the proposed project is estimated to take approximately 3 years to complete, starting in 2026 and continuing to mid-2029. Construction would consist of three primary phases of work: site preparation, generation unit and ancillary facility construction, and generation unit commissioning. Units 1 and 2 would be removed from service once the CCGS is tested, verified for reliability, and ready for operation, which is anticipated by the end of 2029. The CCGS is capable of supplying power even if a supply of hydrogen has not been identified at that time, and impacts have been analyzed assuming that

scenario in the Draft EIR. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P95-83

PSE states that the NREL Alternatives Report's Finding #3 unnecessarily omits energy storage alternatives from modeling of cost or reliability due to the land and footprint constraints at Scattergood. The commenter states that energy storage is among the most cost effective with the least negative impacts and less risk than the hydrogen alternatives evaluated. The commenter is referred to **Response to Comment No. P95-27** which explains that the NREL Alternatives Report used existing case studies in California with installations of at least 100 MW and took into account projects with higher density BESS to adjust the data to conform to the reliability requirements. Even still, the NREL Alternatives Report determined that even with the siting characteristics of the highest density project (including stacking batteries), the capacity of energy storage potential at Scattergood would be substantially smaller than the proposed project (180 MW on 9 acres, or 60 MW on 3 acres [proposed project footprint]). Additionally, the area within Scattergood that is suggested by the commenter is not readily usable due to current operations and topography, and would not be sufficient to accommodate the required capacity.

Regarding leasing land at adjacent parcels for energy storage, similar to the discussion in Section 5.5.5, Develop Proposed Project at Alternative Location, of the Draft EIR (under Section 5.5, Alternative Considered but Dismissed from Detailed Analysis), when considering possible alternative locations to the proposed project, acquisition of a new property for this purpose, while technically feasible, may be cost-prohibitive and extremely difficult in comparison to use of the proposed project site, which is located within the Scattergood service area on property owned and controlled by LADWP. Property acquisition for a generator site (or energy storage as suggested by the commenter) as well as right-of-way acquisition for new or expanded transmission facilities would need to undergo extensive entitlement and permitting processes that would be costly and possibly infeasible.

The commenter also compares the uncertainty around the amount of time and process required to acquire the land as being similar to the uncertainty of environmental reviews for the hydrogen production, delivery, and storage infrastructure associated with the proposed project. However, the proposed project has the option to run on 100 percent natural gas in case of limited availability of hydrogen fuel which may be the circumstance during the initial phases of operation.

Lastly, the commenter's discussion of cost considerations does not address the adequacy of the Draft EIR, and no further response is required.

Response to Comment No. P95-84

PSE concurs with the NREL Alternatives Report's Finding #4 that a fuel cell alternative faces increased technical and operational risk and uncertainty. The comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P95-85

PSE concurs with the NREL Alternatives Report's Finding #5 that demand response alone is not sufficient. However, the commenter suggests demand response should be considered as a hybrid alternative. Such concerns were addressed in **Response to Comment No. P95-28** which discusses the consideration of a hybrid energy storage and demand-side alternative. No further response is required.

Response to Comment No. P95-86

PSE states that the NREL Alternatives Report's Finding #6 limits alternatives solely to fuel cells, but should have considered an energy storage supplemented by demand response alternative and its ability to meet reliability objectives and provide cost savings. The commenter is referred to **Response to Comment Nos. P95-73 and P95-77** which discuss the consideration of energy storage, demand-side management, and a hybrid alternative of the two. No further response is required.

Response to Comment No. P95-87

PSE suggests that an alternative that combines a BESS and local demand-side resources should be considered. For this suggested alternative, as summarized in Table 7 of their report, PSE considers local assets in the vicinity of Scattergood and combination of the following local resources: on-site BESS; adjacent site BESS; local demand management; and local demand-side generation. PSE states that each of the four local resources are detailed below (i.e., Comment Nos. P95-88 through P95-91). Accordingly, the commenter is referred to the corresponding **Response to Comment Nos. P95-88 through P95-91**. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-88

PSE states that the on-site BESS local resource is detailed in Section 6.a.[ii] of their report, which corresponds with Comment No. P95-69. Accordingly, the commenter is referred to corresponding **Response to Comment No. P95-69** for a specific response related to on-site BESS.

PSE then asserts that the adjacent-site BESS local resource would be able to help fill gaps in storage and provide longer duration or increased capacity. Specifically, PSE points to the adjacent LAX and Hyperion WRP and states that acres of land can be leased by LADWP to site solar and storage systems to meet project objectives. PSE includes Figure 4 of their report, which depicts approximate boundaries of the entire Scattergood facility, Hyperion WRP, and LAX. PSE states that the proximity and acreage of such sites to the project site would provide resilience to longer-duration disruptions. However, it should be noted that PSE does not consider the feasibility of LADWP leasing such land from LAX or Hyperion WRP. LAX is overseen by Los Angeles World Airports (LAWA), which is a department of the City of Los Angeles and is governed by a board of commissioners. In addition, LAX has its own land use plan called the LAX Plan, which works in conjunction with a LAX Specific Plan and is a part of the City of Los Angeles' General Plan.[77] Hyperion WRP is overseen by the City of Los Angeles Bureau of Sanitation (LASAN) and is undergoing or implementing existing plans, in part with LADWP, to optimize the City's water supply and recycling. Neither of these sites is under LADWP's jurisdiction, nor would large areas of land on either of these sites be available to LADWP to lease because the land at both sites is largely encumbered by either safety restrictions or significant future development plans.

As described in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, when considering possible alternative locations to the proposed project, acquisition of a new property for this purpose, while technically feasible, may be cost-prohibitive and extremely difficult in comparison to use of the proposed project site, which is located within the Scattergood service area on property owned and controlled by LADWP. Property acquisition or leasing of the extensive acreage proposed by PSE for the adjacent-site BESS would need to undergo extensive

[77] Los Angeles World Airports. LAWA Our LAX – Plan and Ordinance. Available at: https://www.lawa.org/lawa-our-lax/plan-and-ordinances.

entitlement and permitting processes that may cause substantial delays in achieving some of the project's objectives. In addition, the adjacent-site BESS proposed by PSE would also potentially result in new environmental impacts related to land use, biological resources, construction noise, paleontological resources, tribal cultural resources, and hazards and hazardous materials during excavation and construction activities, which cannot be reasonably ascertained. As such, although the adjacent-site BESS proposed by PSE may eliminate the project's air quality temporary but nonetheless significant and unavoidable impact during generator commissioning activity and operations for one vendor, the adjacent BESS may create additional environmental impacts, as mentioned above.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-89

PSE's proposed local demand-side management would involve LADWP engaging with LAX and Hyperion WRP to implement strategies to reduce peak demand from LAX and Hyperion WRP such as setting incentives for demand response or modifying rates and time-of-use schedules. However, as PSE acknowledges, it is difficult to quantify the additional capacity possible beyond the assumptions made in the LA100 Study without more data.

As described in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, LADWP proposes increasing demand side management programs in the SLTRP, including energy efficiency to reduce total energy consumption and demand response to reduce peak demand for energy. Though demand side management programs would help reduce GHG emissions through the reduction in overall energy demand, they would not meet the other project objectives. Specifically, demand side management programs would not help maintain a reliable electrical power system to meet peaks in demand or major interruptions caused by emergency circumstances because such programs target basic demand reduction and rely on customer behavior. Even if the demand-response goals from the SLTRP are met or exceeded, the resulting resources would not supply firm generation capacity in the Los Angeles basin. As such, demand response is a valuable conservation strategy, but it is not a reliable source of firm dispatchable generation necessary during outages of LADWP's primary carbon-free generation and/or transmission system. Aggressive demand-side management has been accounted for in the need for the proposed project and is currently being implemented by LADWP. Demand side management is complementary to the proposed project and will continue as planned whether or not the project is implemented.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-90

PSE's proposed local in-basin distributed generation mainly involves LAX and its on-site solar installation and power generation, which PSE notes may be limited, under development, or undergoing feasibility studies. PSE states that demand-side management through a combination of increased solar, proposed BESS, and the existing generation can minimize demand or even provide power directly to Scattergood while also providing financial savings for both the airport and LADWP. PSE states that increased energy systems at LAX would provide essential energy resilience to the airport and potentially offset emissions from their current gas generation, thus reducing negative climate and health impacts from LAX. However, as discussed above in **Response to Comment No. P95-88**, LAX is overseen by LAWA, and the LADWP Board does not have agency to approve projects and activities within LAX's land use plan and site. PSE also

suggests that clusters of commercial buildings near Scattergood can deploy rooftop solar systems but notes that more research into deployment and cost would be required.

As such, while LAX solar development and local rooftop solar systems would eliminate the project's significant and unavoidable air quality impacts, PSE's proposed local in-basin distributed generation would require acquisition or leasing of property, which while technically feasible, may be cost-prohibitive and extremely difficult to achieve in comparison to the use of the proposed project site, which is located on property owned and controlled by LADWP. The process of acquiring or leasing for the extensive acreage proposed by PSE may cause substantial delays in achieving some of the project's objectives. Furthermore, as PSE acknowledges, it is difficult to quantify the additional capacity possible beyond the assumptions made in the LA100 Study without more data. The alternative alone would not likely meet the project objectives to provide generation capacity to the service area and to provide resilience and reliability of the LADWP electrical power system to help meet peaks in demand and infrequent and relatively short-term, but major, interruptions caused by emergency circumstances (refer to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**). Furthermore, as described in Chapter 5.0, Alternatives to the Proposed Project, of the Draft EIR, and **Topical Response No. 4 – Alternatives**, distributed local solar generation is complementary to the proposed project and will continue as planned whether or not the project is implemented.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-91

PSE reiterates that a hybrid BESS/demand-side resource investment should be considered as an additional alternative to the project, given the local resources described above. PSE states that this alternative should be based on estimates of dense BESS deployment from multiple vendors as well as solar storage and demand flexibility locally and in West Los Angeles. Based on PSE estimates, significantly higher levels of local potential energy resources exist and merit further consideration. PSE also states that their recommended alternative does not rely on additional capacity from transmission upgrades, would avoid and/or reduce impacts of the project, and would provide community and operational resilience for critical facilities and grid balancing services. As such, PSE considers their proposed alternative a likely environmentally superior alternative to both the proposed project and the proposed Environmentally Superior Alternative (i.e., Alternative 4 – Eliminate Vendor B).

As described in **Topical Response No. 4 – Alternatives** and Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to avoid or reduce those impacts in accordance with the CEQA Guidelines. CEQA Guidelines Section 15126.6(a) states that the EIR should consider a range of reasonable alternatives to the proposed project that would attain the objectives of the project and would avoid or substantially lessen any significant effects of the project. The CEQA Guidelines also state there is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason and that an EIR need not consider every conceivable alternative or consider alternatives whose effects cannot be reasonably ascertained. Accordingly, it should be noted that while the four local resources comprising PSE's recommended alternative are technologically feasible and would eliminate the project's significant and unavoidable air quality impacts, the combination of such local resources in an alternative may potentially result in new environmental impacts related to land use, biological resources, construction noise, paleontological resources, tribal cultural resources, and hazards and hazardous materials during excavation and construction activities, which cannot be reasonably ascertained. Furthermore, as PSE

acknowledges, it is difficult to quantify the additional capacity of certain local resources possible beyond the assumptions made in the LA100 Study without more data. In addition, as described above, acquisition or leasing of the required acreage would be dependent on the technological capacity and would present its own challenges based on property ownership/jurisdictional oversight, deviations from land use plans, and conflicts with implementation of existing planned activities. As such, given the potential limitations of the individual local resources, the combined alternative would not likely meet the project objectives to provide generation capacity to the service area and to provide resilience and reliability of the LADWP electrical power system to help meet peaks in demand and infrequent and relatively short-term, but major, interruptions caused by emergency circumstances (refer to **Topical Response No. 1 – Proposed Project Generation Capacity and Grid Reliability**). Lastly, as emphasized in the Draft EIR and Final EIR, the implementation of BESS, demand-side management, and in-basin distributed generation are complementary to the proposed project and will continue as planned whether or not the project is implemented.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P95-92

PSE states that there are additional alternatives beyond the Scattergood area and acknowledges that those alternatives are outside the scope of the analysis. The comment does not address the adequacy of the Draft EIR, and no further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P95-93

PSE recommends LADWP consider a hybrid alternative for on-site BESS to match the majority or all of the generation capacity that is supplemented by solar and storage sited at neighboring facilities, local load flexibility, and distributed resources. PSE evaluates this hybrid alternative compared to the objectives of the proposed project.

The commenter states this hybrid alternative will provide resilience for the grid by serving peak loads, vulnerable populations, and critical loads which can be strategically used and combined to be available when needed. The commenter also states the hybrid alternative will provide a greater level of services to the large nearby loads while balancing the grid and reducing greater emissions than a CCGS. As discussed in **Response to Comment Nos. P95-27, P95-28, and P95-91**, implementation of a grid-scale BESS to store energy during periods of excess generation to be discharged later during periods of high demand would not be anticipated to provide a generation capacity (even when taking into account projects with higher density BESS) that is comparable to the proposed project CCGS. Specifically, a typical BESS is limited in the operational duration and the combination of alternatives is not a source of firm dispatchable generation, whereas a CCGS is a generation source that is always available and dispatchable to meet peaks in demand or major interruptions caused by emergency circumstances. Because of potential disruptions to out-of-basin renewable energy sources, Scattergood has been identified as the most immediate and instrumental location in relation to the requirement for firm generation capacity due to the electrification of LAX, the implementation of increased wastewater treatment capabilities at Hyperion WRP, and anticipated growth in demand in the western areas of the City that Scattergood serves, largely caused by electrification (i.e., the conversion of various functions currently powered by the combustion of fossil fuels, including cooking, space heating, water heating, and the transportation sector, to electricity).

Furthermore, though air quality impacts associated with the combustion of fuel during commissioning and operations would be eliminated, implementation would require a substantially larger amount of acreage, including potentially land for additional transmission lines, which would increase the footprint of construction impacts compared to the proposed project, including potential impacts related to land use, biological resources, construction noise, paleontological resources, tribal cultural resources, and hazards and hazardous materials during excavation and construction activities, which cannot be reasonably ascertained at this time, depending on site characteristics. Additionally, this alternative would require substantially more real estate than what is available at Scattergood which would need to undergo extensive, costly, and possibly infeasible acquisition, entitlement and permitting processes on land that is likely not owned or controlled by LADWP.

Lastly, demand response is a valuable conservation strategy and, coupled with solar or other alternative in-basin clean energy generation, has been accounted for in the need for the proposed project and is currently being implemented by LADWP. These alternatives are complementary to the proposed project and will continue as planned whether or not the project is implemented. LADWP anticipates implementing local energy storage coupled with the CCGS at Scattergood to ensure reliability and resiliency, while also reducing GHG emissions. Energy storage would be deployed as a first source of energy before the proposed CCGS to meet the short-term peaks in demand. However, such energy storage has independent utility from the proposed project, and, furthermore, due to space constraints at Scattergood, energy storage could not be implemented within the station until after completion of the proposed CCGS because the only available property would be used as the staging area for the proposed project construction-related laydown, storage, parking, and administration.

Response to Comment No. P95-94

PSE concludes that the project will have negative impacts and suggests that alternatives to the project be investigated further to avoid impacts. As this comment is concluding the topics discussed in the PSE report, the commenters are referred to the responses to each detailed comment above. The commenter's specific concerns are included in Comment Nos. P95-40 through P95-93. Refer to **Responses to Comments Nos. P95-40 through P95-93** for specific responses to such concerns. No further response is required. Nonetheless, the comment is acknowledged for the record and will be forwarded to the decision-makers for consideration.

Response to Comment No. P95-95

The commenters have attached Exhibit 2 to their comment letter. Exhibit 2 includes a copy of a portion of the project's SCAQMD Form 400-A permit application materials. As the commenters referenced Exhibit 2 in Comment No. P95-15, refer to **Response to Comment No. P95-15.** No further response to this comment is required.

Response to Comment No. P95-96

The commenters have attached Exhibit 3 to their comment letter. Exhibit 3 includes a document prepared by Regenerate California, titled "The Notorious Nine: Gas Plant Pollution in Environmental Justice Communities", and dated 2024. As the commenters referenced Exhibit 3 in Comment No. P95-15, refer to **Response to Comment No. P95-15.** No further response to this comment is required.

Comment No. P96

Martin, Jazmin

From: Eric Crane <eric.m.crane@gmail.com>
Sent: Monday, April 7, 2025 11:42 PM
To: Scattergood_Modernization_Project
Subject: Re: [EXTERNAL] Public Comment To Offer Suggestions For Increased Revenue and Additional (Possibly) Megawatts of Carbon-Free Power

Hi Jazmin,

Thank you for your response, and you're welcome! After I sent the initial email, I remembered that I did some additional research as to the suitability of developing the geothermal resources in oil deposits in LA County, and it was in that additional research where I found the temperatures available in the Venice and other City of LA oil fields. It was either on the State of California Division of Oil and Gas' website, or a similar resource, but it showed bottom of well/hole temperatures of 212˚F in the Venice oil field, and 190˚F in the Inglewood oil field. In the first email, I said this information was in the study commissioned by the US Navy, but that was what led me to do the additional research. The study itself looked at geothermal temperatures in Long Beach and Seal Beach, as they were the most relevant to the Navy's facilities.

I'd also like to add a note about why I think sourcing hydrogen (H2) from methane (CH4) using the anoxic pyrolysis technology I mentioned is advantageous over electrolysis of water. I did include that it uses 1/8 the amount of energy as electrolysis, but, to use a chemistry class word, stoichiometrically, it means that because water (H2O) has 2 hydrogens, and methane has 4, and pyrolysis strips hydrogen from methane using 1/8 the energy of present electrolysis methods, for the amount of energy electrolysis provides 2 hydrogens, the pyrolysis method provides 32. Until catalysts or other methods are discovered that can reduce the energy input for electrolysis to 1/16 or less of the present amount, the pyrolysis method will be more economical. And, like I said in the first email, there is no source of water that would go uncontested as an input to the process. P96-1

And, as I think of it, there is one additional technology that could be utilized at the Scattergood site that can produce power without creating pollution, and it's advantageous that the Hyperion Treatment Plant is co-located. The technology is called Pressure Regulated Osmosis, and it works with similar membranes as those used in reverse osmosis, but rather than purifying water, it uses the difference in salinity between two inputs of water to generate electricity via a difference in pressure. In the literature I've read, ocean water and the effluent of a wastewater treatment plant are given as examples of what could be used as inputs to the system, likewise with stormwater runoff. I know the existing Scattergood turbines are being replaced because of the requirement for eliminating once-through ocean water cooling; as far as I recall, there is no temperature change involved in this process so I'm guessing it wouldn't run afoul of the relevant law, but I don't know the details/breadth of its intent.

Thank you again for considering these comments, I really, really, really hope one (but all would be great) of these ideas is incorporated into the design. If there are any questions, please do not hesitate to reach out. Enjoy the rest of your week!

Sincerely,

Eric Crane

On Fri, Mar 28, 2025 at 1:07 PM Scattergood_Modernization_Project <scattergood_ceqa@ladwp.com> wrote:

Good afternoon Eric,

Thank you for your comment and informational materials.

Please note that the period for submitting comments on the Scattergood Modernization Project Draft EIR was extended. If you wish to submit any additional comments or documents, please ensure that they are postmarked or emailed on or before April 7, 2025, the end of the public comment period.

For more information and to access the environmental documents, please visit the following websites: www.ladwp.com/ScattergoodModernization and www.ladwp.com/envnotices.

P96-2

Best Regards,

Jazmin Martin, Environmental Specialist

Environmental Planning and Assessment

Los Angeles Department of Water and Power

111 N. Hope Street, Room 1044

Los Angeles, CA 90012

Office: (213) 367-1768

From: Eric Crane <eric.m.crane@gmail.com>
Sent: Thursday, March 27, 2025 2:21 PM
To: Scattergood_Modernization_Project <scattergood_ceqa@ladwp.com>
Subject: [EXTERNAL] Public Comment To Offer Suggestions For Increased Revenue and Additional (Possibly) Megawatts of Carbon-Free Power

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EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hi,

P96-3

My comments are related to the CEQA for the Scattergood Modernization Project (SMP) in that a new technology that has been commercialized quite literally this year could move the date for when the SMP's new turbine can burn 100% hydrogen from 2035 to its initial commissioning in 2029, without a change to the fuel supply infrastructure and adding a potentially significant new revenue stream (tens to hundreds of millions of dollars per year, depending on the volume of natural gas the plant will use) for the plant. Such a change would prevent 5 years worth of CO2 emissions, and would contribute to creating an abundance of a material that will help with the transition to electric vehicles and other battery-based applications. Let me add that I don't work for or own stock in the company that makes it (or the others I mention), I just have an affinity for cleantech and renewable energy.

I have a second idea I would like to present as well, it is something that may or may not be relevant to the Scattergood site, but it could be utilized to add carbon emissions-free, 24 hour baseload generation capacity on the megawatt scale throughout the basin, from Venice to the Harbor, to Jefferson Park and Mid City, to Westchester and even by the Haynes Generating Station.

To begin with, the newly commercialized technology, by a company called Levidian, is one that produces gaseous hydrogen and graphene, a form of solid carbon directly from natural gas (methane). The science behind it is this: it uses a process known as pyrolysis, where the methane is heated in absence of oxygen to split apart the molecule--CH4--into its constituent hydrogen and carbon atoms, without any combustion or emissions of NOx or CO2. The energy required to facilitate this process is 1/8 of what goes into splitting water into hydrogen and oxygen via electrolysis that is typically used to make green hydrogen. And, the resulting graphene is an ultra-high quality, consistent product that, at present, fetches between $60,000 and $200,000 PER TON.

Graphene has many uses, but most notably, it can be used to make lithium ion batteries charge faster, store more energy, and improve their efficiency. In addition, using methane as a source for hydrogen eliminates the need for water as an input, both as the hydrogen source as well as maintaining a proton exchange membrane. In fact, this plant could presumably generate PURE WATER as its only "exhaust," something that could be condensed in either an expander turbine or used to power an organic Rankine cycle (ORC) engine (to generate additional electricity), treated, and injected into the drinking water supply. (Of course, pure oxygen would have to be supplied to the turbine in such a way to eliminate NOx emissions, but oxygen can be produced on site with an expander turbine, and the dense, cold oxygen makes the combustion reaction more efficient.)

A way to eliminate CO2 emissions five years ahead of schedule, speed up the implementation of the hydrogen economy, speed the mass adoption of electric vehicles, CREATE a new supply of DRINKING WATER, and a new revenue stream is one hell of a headline for this project. It would quite literally be a "Generating Station," for electricity, graphene, water, and heat (if there's a local use for said heat). But no pollution. Plus, if the natural gas being supplied to the plant is captured from a current source of methane emissions or other waste gas, the process can actually be considered carbon neutral (and possibly allow the plant to receive carbon credits, which it could then sell). P96-3 cont'd

Now, the second idea is somewhat related to the first in that it would use the same technology that turns the turbine's exhaust into liquid water--an evaporator coupled to an organic Rankine cycle engine--but it would be used to generate electricity from the geothermal heat contained in the various oil fields around the city. In 1984, the US Navy commissioned a study of LA County's geothermal resources (attached), to see if it was feasible to use it to heat the now-closed base at the Port of Long Beach. It found that while the temperatures at depths attainable by oil drilling equipment were nearly or high enough to boil water (212˚F, of course), the technology that existed at the time to capture that heat and use it on base was not efficient enough to make it economical.

Luckily, in the intervening decades, the technology has been developed to the point where temperatures as low as 150˚F can be used to generate electricity. There is more than one company that makes the turbines, some of which are also vertically integrated to do site evaluation, custom designs, installation, and operation as well. Here are a few examples: Ormat Technologies, Kaishan USA, ElectraTherm, and HydroScot Energies (UK-based). Now, the fun thing (for me, anyway) about developing this project, in LA, is the potential exists to achieve some real synergies that can reduce costs and solve multiple high profile problems at once. Those problems include uncapped/abandoned oil wells, air pollution/methane leaks from these wells and neighborhood air quality, the need for additional power supply in places where the only way to get it there requires upgraded transmission lines, and community resilience during disasters--earthquakes, wildfires, Santa Ana winds, etc.

In an ideal world, the abandoned wells could be used to analyze the heat-producing ability of the various oil fields, then be repurposed as heat production and reinjection wells, thereby eliminating any methane or other emissions they are presently creating, slowing climate change, improving neighborhood air quality, adding 24 hour, emissions-free, reliable baseload power generation with no fuel cost in places that otherwise require transmission upgrades to supply it, and if the grid surrounding the site were modified, it could be the basis of a microgrid, able to disconnect from the larger one and provide power to homes and community centers during disasters. This is always top of mind in LA, but after the fires in January, its relevance even in interior parts of the city is renewed. It's especially tantalizing (again, for me) as a possibility given that the wells are already present, there are viable temperatures in the formations, and even if there isn't enough heat for multiple megawatt-scale generators, there is a strong possibility that even the 75kW and 150kW models could be economical to install and operate. The average home solar panel installation is 5-10kW, having a few of the 150kW generators would at least help during heat storms in the summer if nothing else.

So, I imagine most comments to a CEQA review don't include ways to make MORE money from a power plant, or promote technologies and companies they don't work for or own any stock in, but here it is. I URGE you to PLEASE give these ideas serious, in-depth consideration. Even just a press release stating the possibilities of a power plant being supplied with natural gas that doesn't pollute as part of its operation, generates power, water, graphene, and heat, and that you are pursuing a new way to get CLEAN energy out of LA's old oil fields that is reliable, a source of baseload power, and eliminates methane pollution--it will turn heads and boost LA's reputation as a place of cleantech innovation, as it's already known, but this will give hope in a time of climate action persecution, and a model to copy that maintains the same jobs required in the oil industry--a model for the just transition. P96-3 cont'd

Because this is VITALLY IMPORTANT, I'll put it in all caps: I SEE THIS AS THE "GRAND BARGAIN" FOR CLIMATE. One reason energy companies have been fighting climate action is they fear a loss of not just market share from competing tech, but an eventual elimination of their business models. Green hydrogen is still being worked on, and even if it was solved tomorrow, building hydrogen distribution infrastructure from scratch will be expensive, to say the least, and the water has to come from somewhere, with no place it would be sourced going uncontested. Now, THE CLIMATE CRISIS IS WORSE THAN EVEN WELL-INFORMED PEOPLE REALIZE, AND SPEEDING UP A HYDROGEN ECONOMY IS ESSENTIAL AND POSSIBLE. My solution is to use METHANE AS A HYDROGEN CARRIER via the EXISTING PRODUCTION, PROCESSING, AND DISTRIBUTION SYSTEMS and extracting the hydrogen pre-end use. The idea has been floated to use ammonia as a hydrogen carrier (NH_3), but I feel methane is better because it provides 4 hydrogen atoms instead of 3, and ammonia is toxic. Using methane, there are no abandoned assets in the natural gas infrastructure that's been built over the last 140 years, and only the turbines, fuel nozzles, and other end-of-pipe hardware needs to be changed by customers, not energy companies.

This does not leave energy companies off the hook, however. In exchange for this system, they would need to agree to seal it of leaks completely, at every stage. As long as this happened, the hydrogen produced could legitimately be referred to as turquoise, and possibly even green. In consideration of all

entities involved, from the energy industry, to their customers, society, and the planet, carbon dioxide emissions from MOST economic activity besides transportation can be ELIMINATED, the energy companies can continue to expand their operations, there is a source of graphene that, at this scale, would be economical to make a host of products and processes more efficient, and, as long as the drive toward maximum electrification continued, NOx emissions would decline. (As long as turbines burning 100% hydrogen at the power plants were designed to prevent NOx emissions, the more that is electrified, including vehicles, stoves, water heaters, home heating via heat pumps, etc, the greater the reduction in combustion-related NOx emissions.)

If you need any clarification on how the oil field geothermal idea could work, please get in touch. The photos on some of the websites show large arrays of cooling fans, but these are in remote areas and at a scale a neighborhood installation would not seek to mimic. The size of the generation and cooling equipment would be sized to what would fit in a given lot's area, and a means to minimize water use--instead of using water to cool the effluent refrigerant from the ORC, a cooling system that generates additional electricity can be used instead, with measures to contain fan noise designed into the system as well.

P96-3 cont'd

Peace, Love, and Possibilities,

Eric Crane

PS: If I had infinite time, I'd write a white paper or another promotional piece of content on the idea of using the Levidian pyrolysis technology as a climate adaptation and resilience solution for any and all water-stressed regions in the world. Taking the change in the western United States' precipitation patterns and the attendant reduction of Colorado River water, any place that already has a supply of natural gas could install a plant such as the one I am suggesting as the basis for resilience of local businesses and municipalities. A 346MW plant could provide electricity to a community, supplementary water for local farms and residents, a source of income via graphene, and a source of heat for a variety of commercial and industrial uses, without creating pollution from its operation, therein not making the problem causing the lack of water worse.

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Comment No. P96

April 7, 2025
Eric Crane
eric.m.crane@gmail.com

Response to Comment No. P96-1

The commenter provides additional research regarding geothermal resources and oil fields in Los Angeles County supplementing information they provided in **Comment No. P90**. The commenter describes the process and benefits of anoxic pyrolysis technology compared to the electrolysis of water. The commenter describes another type of technology, Pressure Regulated Osmosis, and its potential to generate electricity without creating pollution. The commenter requests that these alternative technologies be considered for the proposed project design.

The commenter is referred to **Topical Response No. 4 – Alternatives**. As discussed therein and in Chapter 5, Alternatives to the Proposed Project, of the Draft EIR, alternatives to the proposed project, including renewable energy alternatives, have been considered to foster informed decision-making regarding potential environmental impacts of the project and possible means to address those consequences in accordance with CEQA Guidelines. CEQA Guidelines Section 15126.6(a) states that the EIR should consider a range of reasonable alternatives to the proposed project that would attain the objectives of the project and would avoid or substantially lessen any significant effects of the project. The CEQA Guidelines state there is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason and that an EIR need not consider every conceivable alternative, such as pressure regulated osmosis that is an unproven technology for large-scale power generation comparable to the proposed project.

As this comment does not specifically address the adequacy of the Draft EIR, no further response to this comment is required. Notwithstanding, the comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P96-2

This comment is an email response from LADWP to the commenter. LADWP acknowledges receipt of the commenter's previous comments and provides information regarding the extended public comment period and location of the environmental documents.

Response to Comment No. P96-3

This is the original comment provided on March 27, 2024, (see **Comment No. P90)**. Refer to **Response to Comment Nos. P90-1 through P90-4**.

Comment No. P97

From: Laura Rosenberger Haider
To: Scattergood_Modernization_Project
Subject: [EXTERNAL] Scattergood Green-Hydrogen Ready Modernization Project comment
Date: Monday, April 7, 2025 5:10:07 PM

EXTERNAL EMAIL! This email was generated from a non-LADWP address. If any links exist, do not click/open on them unless you are 100% certain of the associated site or source. ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Large-scale 100% hydrogen combustion has never been done before. An expensive new infrastructure is required to produce and deliver hydrogen. If it fails, natural gas use would continue. Massive methane leaks were found in gas wells and pipelines (See the FLIR Camera videos by Sharon Wilson and the 9th edition of the Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking and Associated Gas and Oil Infrastructure, published in 2023) Hydrogen is highly combustible, corrosive, and accidents could happen in disadvantaged communities through which the pipelines pass. Hydrogen generates 3-5 X as much irritating NOx as natural gas alone which contributes to ozone. Consider the cumulative impact of many gas plants converting to 30% hydrogen. Hydrogen when used by Valero Refining Co. created significant air pollution violations. Valero was required to reconfigure its hydrogen systems to prevent future emissions. The expensive H infrastructure would have to be abandoned to reach climate goals. IPCC modelling scenarios that limit warming to 1.5 degrees above preindustrial temperature show a mid value of 3% of final energy from hydrogen in 2050. Hydrogen has a global warming potential of 11.6 over a period of 100 years (Ref: "A multi-model assessment of the Global Warming Potential of hydrogen- Communications Earth & Environment; nature.com)

P97-1

P97-2

P97-3

Laura Rosenberger Haider
4975 E Butler Ave, unit 137, Fresno, CA 93727

Comment No. P97

April 7, 2025
Laura Rosenberger Haider
4975 E. Butler Avenue, Unit 137, Fresno, CA 93727
lauragreen.rosenberger@gmail.com

Response to Comment No. P97-1

The commenter states that large-scale 100 percent hydrogen combustion has never been done before. While the commenter does not specifically address the adequacy of the Draft EIR, it should be noted that the project does not propose 100 percent hydrogen combustion. The proposed Combined Cycle Generation System would be capable of operating on a fuel mixture of natural gas and a minimum of 30 percent hydrogen by volume. The commenter also states the production and delivery of hydrogen would be costly. in the commenter is referred to **Topical Response No. 2 – Hydrogen**, which states that LADWP would not implement or operate the infrastructure that supplies hydrogen to Scattergood and would instead be a purchaser of hydrogen for the project. Furthermore, as stated in Chapter 2, Introduction, of the Draft EIR, the purpose of an EIR is to provide decision makers, public agencies, and the general public with an objective and informational document that fully discloses the environmental effects of a proposed project. The purpose of an EIR does not require the provision of an economic or financial cost-benefit analysis of the proposed use. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P97-2

The commenter refers to historical methane leaks from gas wells and pipelines and states that hydrogen poses risks during transport that may impact disadvantaged communities. Regarding leaks and other hazardous risks, the commenter is referred to **Topical Response No. 2 – Hydrogen** and Section 4.4, Hazards and Hazardous Materials, of the Draft EIR. As discussed therein, the project would adhere to the provisions of the City of Los Angeles Fire Code, which adopts by reference the provisions of the California Fire Code (CFC), including CFC Chapter 53 (Compressed Gases) and Chapter 58 (Flammable Gases and Flammable Cryogenic Fluids). The CFC also adopts by reference the National Fire Protection Association (NFPA) 2, Hydrogen Technologies Code. Section 6.5 of NFPA 2 additionally requires that piping materials and systems be designed and installed, as well as inspected and pressure tested, in accordance with applicable sections of the American Society of Mechanical Engineers (ASME) B31. Accordingly, the project's use of hydrogen onsite for the proposed CCGS would comply with the City of Los Angeles Fire Code and CFC by adhering to requirements set forth by the NFPA 2, Hydrogen Technologies Code, and the ASME B31.12, Hydrogen Piping and Pipelines. Therefore, the project's hydrogen system would be required to be designed, constructed, protected, maintained, and operated in accordance with technical standards for hydrogen piping and pipelines pursuant to the NFPA 2 and the ASME B31.12. The project would comply with the general hydrogen requirements of the NFPA 2 and adhere to the maximum allowable quantity of hydrogen per control area for storage and usage and implement hydrogen detection, explosion prevention, and venting systems. Piping materials and systems would be designed and installed, inspected, and tested in accordance with the ASME B31 and the International Fuel Gas Code. Section 4.4, Hazards and Hazardous Materials, of the Draft EIR, also discusses specifics for the design, construction, operation, and maintenance of the project's hydrogen pipelines as well as additional requirements of the ASME B31.12, such as preparation of an emergency plan and employee training for hazards and emergency protocols. The project's hydrogen system would undergo extensive testing and inspection prior to operation and after completion of examinations and

repairs to ensure hydrogen leaks would not occur. The project would have extensive fire protection and prevention measures, as well as a Quality System Program, in place to ensure the safety of the environment and public during project construction and operation.

Regarding the potential of hazardous risks to disadvantaged communities, as stated in **Topical Response No. 3 – Environmental Justice**, CEQA does not require analysis of environmental justice, as defined by the State as "…the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code Section 65040.12(e)). In addition, the census tracts surrounding Scattergood and the nearest residential communities to the project site, which include the City of El Segundo to the east and the City of Manhattan Beach to the south, are not identified as disadvantaged or environmental justice communities. Notwithstanding, the commenter is also referred to Section 4.2, Air Quality, of the Draft EIR, which discusses the health risk assessments (HRAs) that were conducted for construction and operation of the project. An HRA is a tool used to estimate the adverse health effects caused by exposure to environmental pollutants. Based on the construction HRA prepared for the project, all health risk factors (cancer risk and chronic exposure) were determined to be less than the CEQA significance thresholds for sensitive receptors. Based on the operational HRA prepared for each of the combustion turbine vendors, the Maximum Individual Cancer Risk would be below the CEQA Toxic Air Contaminant threshold and limits per the SCAQMD regulations for toxic air contaminants. In addition, the chronic and acute hazard indexes would be below the significance thresholds. Therefore, the proposed project would not result in disproportionate impacts to environmental justice communities, would not expose sensitive receptors to substantial pollutant concentrations, and health risk impacts would be less than significant. No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

Response to Comment No. P97-3

The commenter states that hydrogen combustion results in higher NO_x emissions compared to natural gas, and that it would result in significant air pollution and climate change impacts. As noted in Section 3.3.2 of the Draft EIR, all combustion units at Scattergood use SCR, a post-combustion control technology for reducing NO_x air pollutant emissions. Additionally, as described in Section 3.5.1.1 of the Draft EIR, the proposed CCGS would use a combination of processes to control air pollutant emissions, including dry burner technologies for the combustors in the combustion turbines and a SCR system to reduce the NO_x emissions and comply with SCAQMD requirements.

As detailed in Section 4.2, Air Quality, of the Draft EIR, mass emissions of all criteria pollutants from construction, except for NO_x, were determined to be below applicable SCAQMD significance thresholds. With implementation of Mitigation Measure MM-AQ-1, which would require offroad construction equipment greater than 80 hp to be equipped with Tier 4 Final engines, potential significant impacts related to NO_x emissions from construction equipment would be reduced to a less-than-significant level. Emissions during the commissioning phase of construction would exceed the mass daily significance thresholds for VOCs, CO, and NO_x temporarily until equipment tuning and installations are completed. Because commissioning inherently consists of uncontrolled emissions that cannot be limited, no practical mitigation measures can be applied, and the associated air quality impact related to mass daily emissions would remain significant and unavoidable. Based on the unavoidable impacts, in order for the LADWP Board of Commissioners to approve the project, a Statement of Overriding Considerations (pursuant to CEQA Guidelines 15093) must also be approved. It should be noted that during operation, as summarized in Tables 4.2-14 and 4.2-15 of Draft EIR, the incremental change in peak daily NO_x

emissions whether using 100 percent natural gas or a natural gas/hydrogen fuel blend for all vendors would represent a reduction compared to existing conditions and would remain below the regional mass daily significance threshold.

Regarding climate change impacts, the commenter is referred to Section 4.3, Greenhouse Gas Emissions, of the Draft EIR. As detailed therein, the proposed project would not generate greenhouse gas emissions, either directly or indirectly, that would exceed the significance thresholds established by SCAQMD, and the project would not conflict with or obstruct regional and statewide goals to reduce GHG emissions and climate change impacts.

No further response is required. The comment is acknowledged for the record and will be forwarded to the decision-makers for their review and consideration.

CHAPTER 3
TEXT REVISIONS AND ADDITIONS TO THE DRAFT EIR

This section identifies minor revisions and clarifications to the Draft EIR in response to comments received and/or as initiated by the lead agency. These changes are incorporated into the EIR to be presented to the City of Los Angeles Board of Water and Power Commissioners for adoption and project approval. None of these changes to the Draft EIR represent a substantial change to the proposed project that would alter the conclusions reached in the EIR. Revisions made to the Draft EIR have not resulted in the identification of new significant impacts requiring mitigation measures, nor has the severity of a previously identified impact increased. Pursuant to CEQA Guidelines Section 15088.5, none of the CEQA criteria for recirculation have been met, and recirculation of the EIR is not warranted.

Changes made to the Draft EIR sections and pages are identified below with revision marks (underline for new text and strike-through for deleted text).

Chapter 1.0, Executive Summary

The paragraph under Section 1.5 on page 1-6 is revised as follows:

> A public scoping period was held to solicit input on the scope of the analysis for the EIR between May 15, 2023 and July 14, 2023. Additionally, a scoping meeting was held by LADWP on June 6, 2023. The purpose of this meeting was to seek input from public agencies, organizations, and the general public regarding the potential environmental impacts of the proposed project. A total of ~~eight~~ nine written comments and two oral comments during the scoping meeting were received during the scoping period. Comment letters are included in Appendix A of this EIR.

Chapter 2.0, Introduction

The second paragraph under Section 2.2.1 on page 2-2 is revised as follows:

> In addition, a public scoping meeting for the project was held on June 6, 2023. Ten individuals attended the virtual meeting, and two oral comments were received during the public scoping meeting. A total of ~~eight~~ nine written comment letters were received during the NOP scoping period. The comment letters received during the NOP/Initial Study public review period are included in their entirety in Appendix A of this EIR.

Chapter 4.0, Environmental Impact Analysis

The following mitigation measure on page 4-8 is added as follows:

> ***MM-BIO-2: Pre-Project Surveys.***
>
> Prior to the start of project-related activities, two pre-project surveys shall be conducted within the proposed work area within a one-week period. Pre-project surveys shall include:
>
> a. General surveys for botanical and wildlife resources;
>
> b. Identification of any active bird nests and/or animal burrows (if active, they should be recorded, monitored for species observations, and mapped); and
>
> c. Work areas with flowing or standing water shall be visibly surveyed for any aquatic species that may be impacted by project activities.

The surveys shall be conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants/Info). If sensitive or special status species are observed during the pre-project surveys, CDFW shall be notified, LADWP shall set avoidance buffer zones to reduce disturbance to the species (in coordination with CDFW), and LADWP shall monitor the species until either the project has been completed or the species has naturally and voluntarily left the area.

Section 4.2, Air Quality

The text on page 4.2-19 is added as follows:

The proposed wet surface air cooler (WSAC) is a potential source of PM_{10} emissions. The proposed WSAC would be equipped with BACT and would be a similar size as the WSAC being replaced. In a recent repowering project at Scattergood, PM_{10} emissions from the WSAC were 1.7 pounds per day and contributed 1% of the peak daily emissions. Emissions from the WSAC in the proposed project are assumed to be negligible, and only emissions from the turbines were used to determine if impacts are potentially significant. There are no emissions associated with the other auxiliary equipment such as the gas compressors.

The first full paragraph on page 4.2-30 is clarified as follows:

In order to ensure that there would not be a significant localized impact due to operational emissions, ambient air modeling for CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ was conducted. The maximum pollutant concentrations for each averaging period and fuel type for Vendors A, B, and C are presented in Tables 4.2-22 through 4.2-27. For hydrogen fuel blend powered scenarios, the emission averaging periods include a natural gas fueled cold start/shutdown for the 8-hour, 24-hour, and annual averaging periods. This is inherent to the design of the turbine, which can only undergo cold-start/shutdown using natural gas fuel, before it switches over to hydrogen fuel blend for normal operations. Cold start/shutdown was not used for the 1-hour averaging period because the intent is to show results of operation using the hydrogen fuel blend.

The notes of Table 4.2-23 on page 4.2-32 are revised as follows:

Notes:

[1] Stack Parameters used to model ground level concentrations were determined by taking the worst case (i.e., lowest exhaust flow rate and temperature) H2 Blend fueled scenario provided by Vendor A~~)~~. Scenario 27: Natural Gas + 30% H_2 Fuel at 59% Load, Normal Operations; Exhaust Flow Rate - 784,600 acfm, Exhaust Temperature - 164.7°F

[2] ~~1-Hour Cold Start Emissions on Natural Gas (the turbine can only be started up using natural gas fuel, before switching to hydrogen fuel for normal operations).~~1 hour of Normal Operations (turbines must use 100% natural gas to start up the units; thus, the 1-Hour average for hydrogen-fueled scenarios is limited to normal operations)

[3] 1 Cold Start Event, followed by Normal Operations, followed by 1 Shutdown Event; every day; for 365 Days

[4] 1 Cold Start Event, followed by Normal Operations

[5] 1 Cold Start Event, Normal Operations, 1 Shutdown Event

[6] The modeled concentration presented is the model predicted maximum hourly value using ARM2 Ratio processing (minimum NO_2/NO_x ratio of 0.5 and maximum NO_2/NO_x ratio of 0.9).

[7] The modeled concentration presented is the model predicted maximum hourly value (conservative estimate).

The notes of Table 4.2-25 on page 4.2-34 are revised as follows:

Notes:

[1] Stack Parameters used to model ground level concentrations were determined by taking the worst case (i.e., lowest exhaust flow rate and temperature) H_2 Blend fueled scenario provided by Vendor B~~)~~. Scenario 15: Natural Gas + 30% H_2 Fuel at 52% Load, Normal Operations; Exhaust Flow Rate - 1,021,058 acfm, Exhaust Temperature - 289°F

[2] ~~1 Hour Cold Start Emissions on Natural Gas (the turbine can only be started up using natural gas fuel, before switching to hydrogen fuel for normal operations).1-Hour Cold Start Emissions~~1 hour of Normal Operations (turbines must use 100% natural gas to start up the units; thus, the 1-Hour average for hydrogen-fueled scenarios is limited to normal operations)

[3] 1 Cold Start Event, followed by Normal Operations, followed by 1 Shutdown Event; every day; for 365 Days

[4] 1 Cold Start Event, followed by Normal Operations

[5] 1 Cold Start Event, Normal Operations, 1 Shutdown Event

[6] The modeled concentration presented is the model predicted maximum hourly value using ARM2 Ratio processing (minimum NO_2/NO_x ratio of 0.5 and maximum NO_2/NO_x ratio of 0.9).

[7] The modeled concentration presented is the model predicted maximum hourly value (conservative estimate).

The notes of Table 4.2-27 on page 4.2-36 are revised as follows:

Notes:

[1] Stack Parameters used to model ground level concentrations were determined by taking the worst case (i.e., lowest exhaust flow rate and temperature) H_2 Blend fueled scenario provided by Vendor C~~)~~. Scenario 16: Natural Gas + 30% H_2 Fuel at 32% Load, Normal Operations; Exhaust Flow Rate - 700,515 acfm, Exhaust Temperature - 168°F

[2] ~~1 Hour Cold Start Emissions on Natural Gas (the turbine can only be started up using natural gas fuel, before switching to hydrogen fuel for normal operations).1 Hour Cold Start Emissions~~1 hour of Normal Operations (turbines must use 100% natural gas to start up the units; thus, the 1-Hour average for hydrogen-fueled scenarios is limited to normal operations)

[3] 1 Cold Start Event, followed by Normal Operations, followed by 1 Shutdown Event; every day; for 365 Days

[4] 1 Cold Start Event, followed by Normal Operations

[5] 1 Cold Start Event, Normal Operations, 1 Shutdown Event

[6] The modeled concentration presented is the model predicted maximum hourly value using ARM2 Ratio processing (minimum NO_2/NO_x ratio of 0.5 and maximum NO_2/NO_x ratio of 0.9).

[7] The modeled concentration presented is the model predicted maximum hourly value (conservative estimate).

Appendix A of the Draft EIR – Notice of Preparation, Initial Study, and Scoping Comments

A comment letter is added to the Scoping Comments section as follows:

DATE: June 30, 2023
TO: Los Angeles Department of Water and Power, Environmental Planning and Assessment
Attn: Jazmin Martin 111 North Hope Street, Room 1044 Los Angeles, CA 90012
Scattergood_CEQA@ladwp.com 1-213-367-1768

FROM: Sierra Club Angeles Chapter Water Committee
Dr. Tom Williams, 4117 Barrett Rd., LA, CA 90032-1712
Charming Evelyn, 3250 Wilshire Blvd, Suite 1106, LA, CA 90010

SUBJECT: Scattergood Power Station Modernization, City of LA Power System Planning Division, Resource Planning and System Resiliency Scattergood - Studies Update
RE: Review and Comments of Scattergood Initial Study, Proposal, and Alternatives - Motion No. 23-0039 – and Scoping Comments

On behalf of Sierra Club Angeles Chapter's 41, 000 members and the following organizations, Society of Native Nations, Social Eco Education, Southern California Watershed Alliance, SoCal 350 Climate Action, The Environmental Justice Coalition for Water and the Desal Response Group, we thank you for the June 30th 2023 extension. We submit the following review and comments to the May 15, 2023 Notice of Preparation of a Draft Environmental Impact Report for the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project prepared by the Los Angeles Department of Water and Power, and the May, 2023 Initial

1

Study: Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (the Project).

The proposed initial study and any EIR based upon such is/will be inadequate and insufficient for compliance with the California Environmental Quality Act and may be subject to judicial actions. The basic Goals/Purposes and Objectives/Policies are totally inadequate and incomplete for providing the basis for development and comparisons of the various alternatives.

Due to various factors, the proponent of the Project has not provided adequate and well-documented presentation to the affected communities and to the city overall, regarding public health and safety impacts of the Project, its air and water emissions/discharges and especially the hazardous risks of methane and hydrogen leakage in an area designated as a "methane zone". No adequate assessment of the role of green hydrogen and methane at large in the City's transition to 100% renewable energy with many sources of hydrogen potentially on the Project site and related service pipelines to/from the Project.

Some considerations are given for a Mitigated Negative Declaration without distinctions as to the differences of these assessments: Goals/Purposes, Alternatives, Comparisons of alternatives. The Initial study does not provide stated Goals/Purposes, objectives, or policies/processes to achieve such assessments and mitigations. Initial study is similar to the finding for a Mitigated Negative Declaration.

We request the Project proponent(s) conduct a new or updated assessment of non-combustion ALTERNATIVES to the project, including use of green-hydrogen powered fuel cells, high levels of energy storage, large-scale multi-day demand response programs, new and upgraded transmission lines to import higher levels of renewable energy, and others that considers the public health benefits, safety risks, costs and benefits, and long-term monitoring, maintenance and safe operations of the Project and associated pipelines in each alternative.

The Initial Study must provide Goals-Purposes/Objectives and perhaps Policies/Procedures-Processes to achieve such. The EIR must provide a comparison of alternatives compared for impacts, mitigations, and achievements of Goals/Purposes and Objectives.

More detail reviews and comments are provided below.
Bolded – Important statements in IS Text. ***Bolded and Italics*** – *Comments.*

Prospective Alternatives
0% H2 - 100% H2 fueling
Combustion firing outside of the LA Air Basin
Different locations with Air Basin (Port of LA, or Sylmar) or Joint Venture with regional Power generation

Purpose: Provide an update to the reporting and analysis required by City Council in Council File No. 23-0039.

Background: On February 8, 2023, as part of the Los Angeles City's Council (Council) approval of the LADWP's Scattergood Modernization Project ordinance, the Council included and passed a Motion No. 23-0039 requiring the Los Angeles Department of Water and Power (LADWP) to address a list of topics that included:

potential alternatives considered for the project;
public health and safety impacts;
the public engagement process for the project;
the role of green hydrogen at large in the City's transition to 100% renewable energy; and to,
"conduct a new or updated assessment of non-combustion alternatives to the project,
including the use of green-hydrogen powered fuel cells,
high levels of energy storage,
large scale multi-day demand response programs,
new and upgraded transmission lines to import higher levels of renewable energy, and
others that consider the public health benefits, safety risks, costs and benefits"

which are consistent with many elements of an Initial Study, Initial Steps in CEQA/EIR Process but have not been consistently used for scoping for an EIR.

3/2 To address the potential alternatives, since 2019, the LADWP has taken numerous steps to evaluate **alternative**s as a potential solution towards LADWP's clean energy future, and is summarized below…:

Alternatives are not provided, only generalized comments for options. Entire Initial Study (IS) must be revised and recirculated for more meaningful comments for use in the environmental Impact Report (EIR) in full compliance for adequacy and completeness with the California Environmental quality ACT, CEQA.

Initial Study - ***IS***

4/4 As the CEQA lead agency, LADWP must complete an environmental review to determine if implementation of the proposed project may result in significant adverse environmental impacts as defined under CEQA and to propose measures **and/or alternatives**, as feasible, to reduce or eliminate any such identified impacts. LADWP has prepared a CEQA Initial Study to help determine if the proposed project could have the potential to cause significant adverse impacts. Based on the conclusions in the Initial Study (contained herein), LADWP has determined that the proposed project may potentially create significant impacts related to various environmental factors considered under CEQA.

Mention of Project Alternatives other than project components and transportation.
No other mention of any enumerated Project alternatives
No mention of Project goals, purposes, objectives, or other relevant aspects of Alternative proposals or comparisons.
No comparisons are made between the various stated and probable alternatives based on goals/purposes and their related environmental impacts.

6/2 1.2.3 Green Hydrogen Green hydrogen is a carbon-free fuel that is produced through a process called electrolysis, using **renewable electricity** ***(=Green)***. The necessary infrastructure for the **production, transport, and storage** of green hydrogen to support the proposed project currently does not exist. As a result, LADWP has issued and received responses to a **Request for Information** from industry experts to provide potential solutions and strategies for a supply of

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green hydrogen that could support the conversion from natural gas to green hydrogen fuel in the LADWP in-basin combustion-turbine electrical generation system, including for the proposed project CCGS.
The Project is reviewed in a piecemealing of environmental effects in order to avoid recognition of impacts and needed mitigation for various pieces of the "Project". Electric Generation> Electricity> H2O conversion> Storage/Transport of H2> Use for power plant electricity generation.

The Request for Information covers
the potential hydrogen capacity of LADWP's in-basin generating stations;
the potential for retrofits of existing natural-gas combustion turbines to run on green hydrogen;
options for new green hydrogen combustion turbines;
The available documents do not provide comprehensive comparisons of greening one station compared to the same for all stations within the area of support which would provide an improved context for a program rather than individual Project and especially for the context of hydrogen production and distribution to the various major users.

…considerations for safety and environmental stewardship related to green hydrogen.
Piecemealing for number/locations of new or retrofitted stations and their sequencing and supporting infrastructure avoids for a comprehensive assessment of the overall urban area and impacts on >5,000,000 residents.

6/3 While it is anticipated that a sufficient supply of green hydrogen may be available to support the proposed project dual-fuel CCGS when it is fully commissioned in 2029, the nature of the green hydrogen system in terms of production, transport, and storage is **currently unknown** *[Alternative: 0% H2/100% CH4]*. Therefore, the following Initial Study does not, and the EIR will not, address the supply of green hydrogen, which will be analyzed under a **separate CEQA document when the necessary information to support an adequate analysis of potential environmental impacts is available**.
The Project EIR represents a limited piecemealing of the hydrogen system and applications. Need an integrated Programmatic EIR for the Hydrogen System and appropriate different EIRs for Scattergood and its fuel sources and other related stations.

6/4 Nonetheless, because the combustion-turbine generator component of the proposed CCGS would be capable of operating on a mixture of natural gas and hydrogen fuel, the impacts related to the combustion of such a fuel mixture will be analyzed in the EIR *[=Fueling Alternatives]*. Because the exact CCGS that would be installed at Scattergood cannot be established until the award of contract for the proposed project…, LADWP is considering, under a competitive process, systems with similar parameters from three manufacturers. To meet the minimum requirements of the proposed project CCGS, these systems must be capable of combusting a mixture of natural gas and at least 30 percent hydrogen. However, the analysis of the impacts for each manufacturer's system related to the combustion of the natural gas/hydrogen fuel mixture will be based on the maximum percentage of hydrogen that each system can provide, as proposed by the manufacturer. **In addition, the impacts related to the combustion of 100 percent natural gas will also be analyzed in the EIR based on a conservative assumption that this may be the circumstance during the initial phases of operation of the proposed**

CCGS. In this manner, the analysis will consider the extremes of fuel-mixture (i.e., from the maximum percentage of hydrogen, as proposed by the manufacturer, to 100 percent natural gas), which would define the limits of the impacts related to combustion.
Assessment of impacts must be based on a full range of H2/CH4 mix-alternatives: Range of H2 in fuel would vary from ZERO to 100% along with appropriate mitigations and controls/monitoring systems.
EIR must also assess impacts of the production, transport, and onsite storage of both CH4 and H2 for and at Scattergood site.
IS does not mention status and impacts of remaining CH4 pipelines which would be left in place and perhaps cemented closed or used by other projects.

14/3 d. The recycling of wastewater would reduce the volume of wastewater that would need to be discharged. LADWP is considering **various options** to address this wastewater, including the potential for it to be treated at the **adjacent** Hyperion WRP. This option would require the installation under the proposed project, of a dedicated pipeline within Vista Del Mar to transmit the wastewater to Hyperion WRP.
Options must be defined and distinguished from Alternatives and perhaps gathered into a Project Alternative Model, including sets of all options as "Project Alternatives" and in the Alternatives #1 0% and #2 100% H2. Similarly, the EIR must include various proximities adjacent or nearby combustion facilities.

14/4 As discussed above, a **portion of the industrial wastewater** generated at Scattergood would be recycled under the proposed project for use in the generation units. In addition, to further reduce the use of potable water, it is currently planned that the **use of recycled water from outside sources would be expanded under the proposed project**, either with increased supplies from Edward C. Little and/or with new supplies from Hyperion WRP. No modifications of the supply infrastructure from Edward C. Little to Scattergood would be required. However, if additional recycled water were supplied from Hyperion WRP, a **new recycled water supply *pipe*line to Scattergood** would be necessary. This recycled water may require treatment similar to the potable water used at Scattergood for various processes (i.e., reverse osmosis and demineralization) and could also require chemical additives to minimize damage, such as corrosion and scaling, to systems. **This would require an expansion of the water treatment equipment at Scattergood.**
The initial study does not adequately assess and compare water systems - supplies, discharges, and onsite/near-site resources and conditions – #1A: 0% Hyperion no new pipeline; #1B: 100% Hyperion + Pipeline.
A full range of water treatment alternatives could also be at Hyperion, an option or an alternative.

15/1 LADWP is considering **various options** for the discharge of **stormwater** that could not be reused, including the **potential** for it to be transmitted to Hyperion WRP via a **new dedicated wastewater *pipe*line** that would be installed in Vista Del Mar under the proposed project.
Again, options vs alternatives Piecemealing – #1C: 0% Hyperion no new return pipeline, onsite treatment and groundwater recharge; #1D: 100% return to Hyperion + Pipeline
Provide Alternatives, not just options and provide comparisons against goals/purposes.

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19/ Description of Project: LADWP proposes to construct and operate a rapid-response CCGS at Scattergood. The CCGS would be capable of operating on a **fuel mixture of natural gas and a minimum of 30 percent hydrogen gas**. This hydrogen-ready capability would allow LADWP to begin the conversion from…20/1…natural gas to green hydrogen in its in-basin combustion-turbine generation system as the department transitions to a carbon-free electrical energy system ***(Alternative 1B)***. The proposed project would replace the generation capacity of existing Scattergood Units 1 and 2, which are conventional natural-gas-fired steam-boiler electric generators that will be removed from service. When compared to the existing steam-boiler Units 1 and 2, the **CCGS would substantially increase fuel efficiency, thereby also reducing the emission of air pollutants and GHGs relative to the amount of energy produced**. The CCGS would be fully operational by the end of 2029.

20/3 2.1 Environmental Factors **Potentially Affected** The environmental factors checked below would be **potentially affected** by this project, involving **at least one impact that is a "Potentially Significant Impact"** as indicated by the checklist on the following pages. ☒ Aesthetics…☒ Air Quality ☐ **Biological Resources** ☐ **Cultural Resources** ☐ **Energy** ☐ **Geology** and Soils ☒ **Greenhouse Gas Emissions** ☒ Hazards and Hazardous Materials ☒ Hydrology and Water Quality ☐ Land Use and Planning ☐ **Mineral Resources** ☒ Noise…☐ **Public Services** ☐ Recreation…☒ Tribal Cultural Resources ☒ Utilities and Service Systems…☒ Mandatory Findings of Significance

Beneficial affected vs impacted
Goals Purposes Objectives – Policies/Programs
Alternatives
Bio-resources Reduced water discharges to shallow southern Santa Monica Bay habitats and related to impacts in Hydrology
Construction/excavation impacts for tribal and paleo-resources
Energy – CH4 > H2 – existing CH4 production>transmission>storage
Three oil-related wells in El Segundo Field 570ft SE of site
Geology - <5mi to 7.3 RM source and fossil in new CH4/H2O pipelines
GHG affected or impacted…reduce or eliminate C+ gases
Mineral Resources – entire site sits on top of El Segundo Oil Field = Mineral Resources and as such requires CH4 gas surveys of Project site for hazards
Public Services (LAFD) are affected, impacted perhaps, by addition, not replacement of CH4 by H2 facilities

36/4 b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? Less Than Significant Impact.
New pipelines for H2 and wastewater/reclaimed water supply must be expected to encounter archaeological and perhaps paleontological remains. Provide typical mitigation measure and the commitment to them.

The South Central Coastal Information Center records search, literature review, and map review identified no archaeological resources…, within Scattergood….; thus, the preservation of

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archaeological sites would be highly unlikely…. Due to past disturbance from the development of facilities at Scattergood, the project site has very low to no sensitivity for significant prehistoric or historic period archaeological resources. **Therefore, impacts related to archaeological resources would be less than significant, and this issue will not be further analyzed in the EIR.**
No adequate surveys, borings, or their reviews have been conducted for the main site in the past nor proposed for the current Project, and none are considered for the proposed project pipelines. Provide for mitigation of potential significant impacts and monitoring of all site and pipeline excavations. Conduct pre-construction/trenching borings to establish previous fill/disturbance zones.

40/3 Less than Significant Impact. Two major active earthquake fault zones and several smaller earthquake faults are located within the general region of Scattergood. The Palos Verdes Fault Zone is located offshore approximately 3.5 miles southwest of the station at its nearest point.
ZIMAS says it is 5.17km or 3.2mi. Don't use metric measurements for public documents in California. Provide a map of all known faults within 5 miles.
Provide mitigation appropriate to potential earthquakes identified by ZIMAS and expected along Inglewood if greater.

41/1 The proposed project facilities **would be designed and constructed** in compliance with the latest version of the City of Los Angeles Building Code and other applicable local, state, and federal codes to minimize impacts related to **fault rupture**. Furthermore, a site-specific geotechnical analysis for the **project site** would be prepared prior to construction to provide design recommendations related to seismic criteria. Therefore, impacts related to potential adverse effects from the rupture of a known earthquake fault would be less than significant, and **this issue will not be further analyzed in the EIR**.
Provide for mandatory – shall/must – for all designs and construction.
Provide similar mitigation surveys/studies/analyses for all pipeline routes.
Include effects of shaking and especially for all pipelines and junctions within and outside of the primary Project area.
No studies nor analysis have been completed and ZIMAS indicates that landslides are potential for the site. ZIMAS 5.17km NE from submerged PV Fault Zone – 7.3 Max. Mag. ZIMAS subject to Landslides
Provide for installation of micro-seismic monitoring until Project is operational.

41/2 Furthermore, a site-specific geotechnical analysis for the project site **would be prepared** prior to construction to provide design recommendations related to seismic criteria. Therefore, impacts related to **strong seismic ground shaking would be less than significant, and this issue will not be further analyzed in the EIR.**
Provide for mandatory – shall/must – for all designs, analysis/monitoring, and construction.
No studies nor analyses have been completed and ZIMAS indicates that landslides are potential for the site. ZIMAS 5.17km NE from PV Fault Zone – 7.3 Max. Mag. ZIMAS subject to Landslides.
Conduct further assessment and mitigation for seismic shaking.

41/4 A site-specific geotechnical analysis **would also** be prepared prior to construction to provide project design recommendations in accordance with all applicable local, state, and federal codes related to seismic criteria. Therefore, impacts related to landslides would be less than significant and this issue will not be further analyzed in the EIR.
Provide for mandatory – shall/must – for all designs, analysis/monitoring, and construction.
No studies nor analysis have been completed and ZIMAS indicates that landslides are potential for the site.
ZIMAS recognizes the Project being 5.17km NE from PV Fault Zone – 7.3 Max. Mag. ZIMAS subject to Landslides.
Further studies and assessment must provide mitigation for potential impacts and MUST be reviewed and mitigated in the EIR.

43/3 f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Less Than Significant Impact with Mitigation Incorporated. The soil at the project site has been mapped as Urban Land,…A previous study of the project site indicated that **Holocene deposits near the surface have been stripped away by past construction activities**….Seven localities from similar sedimentary deposits as the project site, either at the surface or at depth, were identified between 0.6 and 3.75 miles from the project site. This indicates that fossil-bearing geologic units are present in the vicinity of the project site, potentially including the highly sensitive Palos Verdes Sands and San Pedro Formation.
Provide similar analyses for all pipeline routes to Hyperion and elsewhere.
No evidence, especially from prior CEQA documents, has been provided that Holocene deposits have been stripped away. No geotechnical borings and their micro-fossils (e.g., pollen, diatoms, foraminifera, ostracods, or mollusks) have been attached or assessed within the IS.

43/4 With implementation of MM GEO-1, impacts to paleontological resources during construction would be less than significant, and this issue…44/1…will not be further analyzed in the EIR.
Provide coordinated archaeological and paleontological reviews, assessments, and mitigation for all Project site excavations and those for new pipelines, including to Hyperion.
Provide pre-design geotechnical borings and samplings for micro-/mini-fossils for any locations within the site where excavations may be deeper than 5ft.
Provide similar analyses for all pipeline routes to Hyperion and elsewhere and retain assessments and mitigation within the EIR.

48/4 5 H2
The use of hydrogen fuel in the proposed CCGS would introduce a potentially hazardous material not currently in use at Scattergood…. However, the proposed CCGS **would be designed to limit embrittlement of metals** caused by hydrogen and the degradation of components related to the higher flame temperature of hydrogen.
The storage and use of hazardous materials [H2] **during operation would comply with local, state, and federal regulations**. With adherence to relevant regulations, including the Risk Management Plan, and the application of appropriate design features, the impact related to a significant hazard through the routine ***production,*** **transport, use, and handling** of hazardous materials during project operation would be less than significant, and this issue **will not be further analyzed in the EIR.**

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Provide for mandatory – replace would with shall/must – for all designs, analysis/monitoring, and construction.

49/4 However, the use of hydrogen fuel in the proposed CCGS would introduce a potentially hazardous material not currently in use at Scattergood. Although, the proposed CCGS would be designed to limit embrittlement of metals caused by hydrogen and the degradation of components related to the higher flame temperature of hydrogen, **the hazard related to reasonably foreseeable upset and accident conditions is considered a potentially significant impact, and this issue will be further analyzed in the EIR.**
Choose to assess both alternatives – upsets and accidents are not the same for both the Project generation and H2 supply pipelines.

50/2 Nonetheless, soil underlying the proposed project site may be contaminated. As discussed above in Section 3.9(a), the site **would be properly investigated and remediated prior to project construction**. **Impacts would be less than significant, and this issue will not be further analyzed in the EIR.**
Any impacts would be Remediated therefore – mitigated thus they MUST be assessed and mitigated in the EIR.

53/1 Instead, as currently planned under the proposed project, wastewater and stormwater would be captured to the **extent possible utilizing the existing wastewater storage tanks**…. This water would then be pumped to the existing process water storage tanks at the east end of Scattergood, from which it would be recycled for use within the generator systems. LADWP is **considering various options** to address wastewater and stormwater that could not be reused, including the potential for it to be treated at the adjacent Hyperion WRP. As discussed above, this option would entail constructing a dedicated wastewater *pipe*line in Vista Del Mar from Scattergood to Hyperion WRP as well as reconfiguring the existing wastewater and stormwater collection systems within Scattergood.
Considering options is under-whelming and means nothing, provide definitive mitigation measures or Project alternatives based on 1/100 storm and process recycling for Project uses.

53/3 While it is anticipated that the quality and quantity of these wastewater and stormwater discharges could be accommodated at Hyperion WRP, **further coordination with Hyperion WRP MUST be conducted**. Therefore, **the impact is potentially significant, and this issue will be further analyzed in the EIR.** ***Finally use of "MUST" rather than would or could. Require Stormwater for Groundwater Recharge as required in LA City LIDs and assess up to 1/50year stormwater runoff collection, conveyance, storage, and use.***

54/2 Under the proposed project, stormwater runoff at Scattergood **would be** collected and recycled for industrial processes **to the extent possible**, thus **minimizing** stormwater runoff from the site that could lead to erosion or siltation. LADWP is **considering various options** for the discharge of stormwater that could not be reused, including the potential for it to be transmitted to Hyperion WRP **via a new dedicated wastewater *pipe*line**. Therefore, there would be no substantial soil erosion or siltation would occur during project operations. **Impacts would be less than significant, and this issue will not be further analyzed in the EIR.**

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Provide definition – 1/100 yr, 1/50 years, 3/4in / 24 hr, 2in/24hr and provide thorough design of collection, conveyance, storage, and recharge for a specific amount (in/day, 1/100yr, etc.
Assess mitigation by conveyance and treatment in Hyperion.
Assess direct reuse and groundwater recharge following treatment.

54/5 As previously discussed, following construction, the number of impervious surfaces at the project site would be similar to existing conditions. Furthermore, under the proposed project, stormwater runoff at Scattergood **would be collected and recycled** for industrial processes **to the extent possible,** thus minimizing stormwater runoff from the site that could lead to erosion or siltation. LADWP **is considering various options** for the discharge of stormwater that could not be reused, including the potential for it to be transmitted to Hyperion WRP via a new dedicated wastewater line. Therefore, there would be no substantial soil erosion or siltation would occur during project operations. **Impacts would be less than significant, and this issue will not be further analyzed in the EIR**.
Repetitive paragraph, revise or remove.

54/7 Potentially Significant Impact. As previously discussed, a SWPPP **would be** implemented to control runoff during construction. LADWP is **considering various options during project operations** for the discharge of stormwater that could not be reused on site, including the potential for it to be transmitted to Hyperion WRP, where it would undergo treatment. However, further coordination with Hyperion WRP must be conducted regarding this option. Therefore, **the impact is potentially significant, and this issue will be further analyzed in the EIR.**
Conditional does not count in EIRs, shall or must…must be included and replace all would(s), could(s), and even should.
What is the difference between OPTIONS and ALTERNATIVES?
Provide "must recharge excess rainfall into the underlying groundwater table", but not as an option…part of the Project mitigation, remember LID requirements.

57/2 No Impact. The proposed project is entirely located within a mineral resource zone (MRZ) area designated as MRZ-3, meaning an area containing known or inferred mineral aggregate resource(s) of undetermined mineral resource significance.\30 ….No mineral extraction occurs within or near ***[from beneath]*** the station. Thus, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. **No impact would occur, and this issue will not be further analyzed in the EIR.**
Existing CH4 pipelines could be reversed for natural gas storage or production if production could be developed within the Project area, or vicinity.
Project lies within and over the El Segundo Oil Field and Methane Zone (ZIMAS/CAL-GEM) and oil field wells lie within 600 ft of Project boundaries.
Like elsewhere throughout the IS, provide for adequate and complete discussion of mineral resources and designated fields beneath the Project area.

58/2 Potentially Significant Impact. Other than the **delivery of fill material and construction components** to the site, the hauling of debris from the site, and the potential installation of **a wastewater line** to Hyperion WRP within Vista Del Mar, construction activities would be confined to the boundaries of Scattergood….Therefore, the project may result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the

project in excess of standards established in a general plan or noise ordinance. The impact is potentially significant, and this issue will be further analyzed in the EIR.
Include the on- and offsite effects of concrete deliveries and pumping of concrete within the Project area.
Include offsite construction of a recycled water line to Project from Hyperion.
Establish a specific noise level limit for perimeter and provide mitigation for construction and operations noise generation. Provide mitigation measures for Noise, e.g., screening, plywood barriers/enclosures.

61/2 Therefore, it is **not anticipated** that new or physically altered fire protection facilities would be required to maintain acceptable service ratios, response times or other performance objectives. No impact would occur, and this issue will not be further analyzed in the EIR.
As indicated elsewhere provide an adequate and complete assessment of fire and gas explosion risks and counter measures for the much lighter and hotter burning H2 compared to CH4. Provide an adequate CH4-gas monitoring of the Project site and vicinity and conduct borings and monitoring of all boring in order to assure CH4 controls from the oil field beneath the Project.

64/2 No Impact. The majority of construction activities for the proposed project would occur within the boundaries of Scattergood. However, the potential installation of **a new wastewater pipeline** from Scattergood to Hyperion WRP **would occur** within Vista Del Mar…These disruptions would be temporary, and the roadway would be restored to pre-construction conditions after the pipeline installation was completed. Therefore, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. **No impact would occur, and this issue will not be further analyzed in the EIR**.
Clarify as to whether pipeline shall be constructed or not. Elsewhere considered as option/alternative
Provide adequate and complete description, testing, and assessment for BOTH wastewater and reclaimed water pipelines for the Project within and outside the Project boundaries.

65/4 No Impact….This would require traffic lane closures on Vista Del Mar during construction. A traffic control plan **would be** implemented to minimize disruptions to traffic. These disruptions **would be** temporary, and the roadway **would be** restored to pre-construction conditions after the pipeline installation was completed. The project **would not** introduce new **geometric design features or incompatible uses** to the road network. No impact **would occur**, and this issue **will not** be further analyzed in the EIR.
Use of conditional throughout the IS renders such IS inadequate and incomplete and must be replaced by shall/must throughout in order to avoid further assessment of the EIR.

68/3 Under current operations….The proposed project CCGS **would also require** water for uses such as the air inlet evaporative cooling, makeup for the HRSG/ACC steam cycle, and the WSAC. The use of potable water for the proposed project **would be offset** by a similar reduction in use associated with removal from service of existing Generation Units 1 and 2….thereby reducing the use of potable water at Scattergood. In addition, because the proposed project CCGS and all generation units at…69/1…Scattergood **are anticipated** to only be **operated infrequently compared to existing operations**, the consumption of water on an annual basis

would be reduced proportionally. Therefore, no expanded water treatment facilities **would be** required.
Provide in the IS a flowchart with expected daily/annual flow volumes and heat throughout the Project, including discharges to wastewater and receipt of reclaimed water supplies.
Provide in the IS an annual schedule and variability for generating operations and for related water use and wastewater generation.

69/2 Under the proposed project, industrial wastewater and stormwater runoff **would be** collected and **recycled for industrial processes at Scattergood to the extent possible**. LADWP is considering **various options** for the discharge of wastewater and stormwater that **could not be reused**, including the potential for it **to be transmitted to Hyperion WRP via a new dedicated wastewater *pipe*line** that **would** be installed in Vista Del Mar under the proposed project. To transmit the wastewater and stormwater runoff to Hyperion WRP, a dedicated wastewater *pipe*line within Vista Del Mar from Scattergood to Hyperion WRP **would be installed** under the proposed project.
Provide requirements for Project collection and transport of all wastewater and stormwater to Hyperion, and for onsite treatment and discharge to groundwater augmentation.
Install, operated also?

69/5 Less Than Significant Impact. ….**It is** also anticipated that the use of recycled water for industrial processes **would be** expanded under the proposed project, thereby reducing the use of potable water at Scattergood…., because the proposed project CCGS,…, **is anticipated** to be **operated only infrequently compared to existing operations**, the consumption of water would be reduced proportionally on an annual basis. Therefore, there would be sufficient water supplies available to serve the project. The impact would be less than significant, and this issue will not be further analyzed in the EIR.
Don't use indefinite "It's" nor "would be's".
Provide a water flow/use diagram for Project along with flow volumes.
Define "anticipated" is it or not part of the Project, clarify and define.
Provide comparison of annual current and Project operations, generation, and air/water uses and emissions.

69/7 m. However, after project implementation, the OTC system would no longer be available for the purpose of wastewater and stormwater discharge. Instead, under the proposed project, wastewater and stormwater would be captured to the **extent possible utilizing the existing wastewater storage tanks located in the southwest corner of Scattergood.** This water **would then be** pumped to the existing process water storage tanks at the east end of Scattergood, from which **it would be recycled for use within the generator systems**. LADWP **is considering various options** to address wastewater and stormwater that could not be reused, including the potential for it to be treated at Hyperion WRP. As discussed above, this would entail constructing a dedicated wastewater *pipe*line in Vista…70/1…Del Mar from Scattergood to Hyperion WRP as well as **reconfiguring the existing wastewater and stormwater collection systems within Scattergood**.
Provide definitions for operations, conditions, and control parameters for "extent possible", maximum, nominal, and minimal.
Provide the operation and environmental conditions governing the "would(s)".

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Provide for collection and treatment for all wastewater/stormwater use and zero discharges.

70/2 While **it is anticipated** that the quality and quantity of these wastewater and stormwater discharges **could** be accommodated at Hyperion WRP without expansion of capacity, further **coordination with Hyperion WRP regarding the proposed plans must be conducted**. Therefore, the impact is potentially significant, and this issue will be further analyzed in the EIR.
Define anticipated and must be conducted.
Provide conditions required for "could" and "must".
What is coordination required?

74/1 Nonetheless,…, LADWP has **notified California Native American tribes known to be ancestrally affiliated with the project area and is conducting consultation with tribes that have requested** such regarding specific knowledge of potential tribal cultural resources on or near the project site. Therefore, in relation to tribal cultural resources, the impact is potentially significant, and this issue will be further analyzed in the EIR.
Provide listing of tribes informed and responding and expected to participate in the EIR preparations.

74/3 However, the potential exists for such **impacts, although individually limited**, to make a cumulatively considerable contribution to potentially significant impacts caused by the combined effects of the proposed project and the impacts of other projects that are **closely related geographically** (i.e., within the same vicinity or greater region, depending on the nature and scope of the project and environmental factor under consideration) and **in time** (i.e., recently completed projects, projects currently under construction, and/or projects anticipated to be implemented in the near-term future). Therefore, the impact is potentially significant, and this issue will be further analyzed in the EIR.
Provide table of impacts and their individual limitations and provide basis for cumulative impacts suitable for assessment as cumulative.
Provide numerical spans for area and time: e.g., within 5000ft of any construction areas or lineal segments, and within 5 years before and 5 years after the proposed construction period of 5 years (2024-2029: 2019-2034).

74/5 Potentially Significant Impact….the proposed project could have environmental effects which will cause adverse effects on human beings related to **aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, hydrology, noise, and utilities**. Therefore, the impact is potentially significant, and this issue will be further analyzed in the EIR.
Provide additional environmental and adverse effects assessments and mitigations within the EIR for those mentioned in these comments.

Respectfully,

Dr Tom Williams
Chair, Sierra Club CA Technical Sub-committee

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Charming Evelyn
Chair, Sierra Club Angeles Chapter Water Committee
Co-chair Sierra Club CA Water Committee

Frankie Orona
Executive Director
Society of Native Nations

Martha Camacho-Rodriguez
Director
Social Eco Education

Conner Everts
Executive Director
Desal Response Group
Southern CA Watershed Alliance

Esperanza Vielma
Executive Director
The Environmental Justice Coalition For Water

Jack Eidt
Co-Founder
SoCal 350 Climate Action

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Appendix B of the Draft EIR – Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis

The text in the Table of Appendices list is added as follows:

APPENDIX A – CALEEMOD OUTPUTS
APPENDIX B – SUPPLEMENTAL EMISSION CALCULATIONS
APPENDIX C – COMMISSIONING AQIA EMISSIONS
APPENDIX D – OPERATIONAL AQIA EMISSIONS
APPENDIX E – CONSTRUCTION HRA MODELING RELATED FILES
APPENDIX F – REGULATORY FRAMEWORK

The text in Section 3.1.3 on page 24 is added as follows:

The SGS would need to demonstrate compliance with all applicable SCAQMD rules. See Appendix F for the applicable SCAQMD rules and State and federal regulations.

The text in Section 4.2 on page 42 is added as follows:

The proposed WSAC is a potential source of PM_{10} emissions. The proposed WSAC would be equipped with BACT and would be a similar size as the WSAC being replaced. In a recent repowering project at SGS, PM_{10} emissions from the WSAC were 1.7 pounds per day and contributed 1% of the peak daily emissions. Emissions from the WSAC in this project are assumed to be negligible, and only emissions from the turbines were used to determine if impacts are potentially significant. There are no emissions associated with the other auxiliary equipment such as the gas compressors.

The text in Section 4.3.2 on page 59 is clarified as follows:

The maximum pollutant concentrations for each averaging period and fuel type are presented in Tables 4-22 and 4-23 for Vendor A, Tables 4-24 and 4-25 for Vendor B, and Tables 4-26 and 4-27 for Vendor C. Please note that for hydrogen fuel powered scenarios, the emission averaging periods include a natural gas fueled cold start/shutdown for the 8-hour, 24-hour, and annual averaging periods. This is inherent to the design of the turbine, which can only undergo cold-start/shutdown using natural gas fuel, before it switches over to hydrogen fuel for normal operations. Cold start/shutdown was not used for the 1-hour averaging period because the intent is to show results of operation using the hydrogen fuel blend.

The notes of Table 4-23 on page 61 are revised as follows:

1 Stack Parameters used to model ground level concentrations were determined by taking the worst case (i.e., lowest exhaust flow rate and temperature) H2 Blend fueled scenario provided by Vendor A~~)~~. Scenario 27 ; Natural Gas + 30% H2 Fuel at 59% Load, Normal Operations; Exhaust Flow Rate - 784,600 acfm, Exhaust Temperature - 164.7°F

2 1 hour of Normal Operations (turbines must use 100% natural gas to start up the units; thus, the 1-Hour average for hydrogen-fueled scenarios are limited to normal operations) ~~1-Hour Cold Start Emissions on Natural Gas (the turbine can only be started up using natural gas fuel, before switching to hydrogen fuel for normal operations).~~

3 1 Cold Start Event, followed by Normal Operations, followed by 1 Shutdown Event; every day; for 365 Days

4 1 Cold Start Event, followed by Normal Operations

5 1 Cold Start Event, Normal Operations, 1 Shutdown Event

6 The modeled concentration presented is the model predicted maximum hourly value using ARM2 Ratio processing (minimum NO_2/NO_x ratio of 0.5 and maximum NO_2/NO_x ratio of 0.9).

7 The modeled concentration presented is the model predicted maximum hourly value (conservative estimate).

The notes of Table 4-25 on page 63 are revised as follows:

1 Stack Parameters used to model ground level concentrations were determined by taking the worst case (i.e., lowest exhaust flow rate and temperature) H2 Blend fueled scenario provided by Vendor B~~)~~. Scenario 15 ; Natural Gas + 30% H2 Fuel at 52% Load, Normal Operations; Exhaust Flow Rate - 1,021,058 acfm, Exhaust Temperature - 289°F

2 1 hour of Normal Operations (turbines must use 100% natural gas to start up the units; thus, the 1-Hour average for hydrogen-fueled scenarios are limited to normal operations) ~~1-Hour Cold Start Emissions on Natural Gas (the turbine can only be started up using natural gas fuel, before switching to hydrogen fuel for normal operations).~~

3 1 Cold Start Event, followed by Normal Operations, followed by 1 Shutdown Event; every day; for 365 Days

4 1 Cold Start Event, followed by Normal Operations

5 1 Cold Start Event, Normal Operations, 1 Shutdown Event

6 The modeled concentration presented is the model predicted maximum hourly value using ARM2 Ratio processing (minimum NO_2/NO_x ratio of 0.5 and maximum NO_2/NO_x ratio of 0.9).

7 The modeled concentration presented is the model predicted maximum hourly value (conservative estimate).

The notes of Table 4-27 on page 65 are revised as follows:

1 Stack Parameters used to model ground level concentrations were determined by taking the worst case (i.e., lowest exhaust flow rate and temperature) H2 Blend fueled scenario provided by Vendor C~~)~~. Scenario 16 ; Natural Gas + 30% H2 Fuel at 32% Load, Normal Operations; Exhaust Flow Rate - 700,515 acfm, Exhaust Temperature - 168°F

2 1 hour of Normal Operations (turbines must use 100% natural gas to start up the units; thus, the 1-Hour average for hydrogen-fueled scenarios are limited to normal operations) ~~1-Hour Cold Start Emissions on Natural Gas (the turbine can only be started up using natural gas fuel, before switching to hydrogen fuel for normal operations).~~

3 1 Cold Start Event, followed by Normal Operations, followed by 1 Shutdown Event; every day; for 365 Days

4 1 Cold Start Event, followed by Normal Operations

5 1 Cold Start Event, Normal Operations, 1 Shutdown Event

6 The modeled concentration presented is the model predicted maximum hourly value using ARM2 Ratio processing (minimum NO_2/NO_x ratio of 0.5 and maximum NO_2/NO_x ratio of 0.9).

7 The modeled concentration presented is the model predicted maximum hourly value (conservative estimate).

The following text is added after the last page of Appendix E in *Air Quality, Greenhouse Gas Emissions, and Health Risk Assessment Analysis* of the Draft EIR:

APPENDIX F – REGULATORY FRAMEWORK

SCAQMD REGULATIONS

Rule 212 – Standards for Approving Permits - The proposed project is subject to public notice under Rule 212. The following are the notice requirements for the rule:

The proposed project is subject to the noticing requirements of paragraph (g). This paragraph requires that notification follow the procedures of 40 CFR52, 40 CFR124, and Section 124.10. Rule 212(g) also requires: (1) SCAQMD analysis and information submitted by the operator (LADWP) must be available for public inspection in an area near the source, (2) notice by prominent advertisement in the affected area, and (3) mailing a copy of the notice to the United States Environmental Protection Agency (USEPA), California Air Resources Board (CARB), chief executives of the city and county where the source is located, any land use agencies, and State and Federal Land Managers of Indian Governing Body whose lands may be affected by the project.

In addition to the above, Section 124.10 requires that the notice be sent to Federal and State agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal

zone management plans, the Advisory Council on Historic Preservation, State and Historic Preservation Officers. The applicant must also distribute the notification to all addresses within a ¼ mile radius of the facility. LADWP will distribute the above notification meeting the Rule 212 requirements.

Rules 218, 218.1, 218.2, 218.3 – Continuous Emissions Monitoring - The proposed Unit 8 CCGS is required to have a CO Continuous Emissions Monitoring System (CEMS) installed to verify that the emissions of CO do not exceed the emission limits. The CO CEMS will need to comply with the requirements of Rule 218 (c), (e), (f), and the facility will need to submit a CEMS application for SCAQMD review and approval prior to installing the CEMS. It has been confirmed that the CO CEMS will be installed and certified, thus the operation of the combustion turbine (CT) will be in compliance with Rule 218.

Rule 218 provides general CEMS requirements on applicability, certification, modification, operation, recordkeeping, and reporting. Rule 218.1 specifies system installation, certification tests, QA/QC tests, and the standards. Rule 218 focuses on administrative requirements, while Rule 218.1 focuses on performance specifications.

Rules 218.2 and 218.3 are CEMS rules that were adopted on March 5, 2021. Rule 218.2 provides key modifications on certification process for CEMS modification and requirements for reporting. It includes a new provision for Monitoring Requirements (e) that requires CEMS to be in continuous operation except during maintenance and repair and during long term shutdown. Rule 218.3 is based on Rule 218.1, with a focus on CEMS performance specifications with key modifications on span range, data acquisition and handling system, relative accuracy test audit, and calibration gas requirements in subdivisions (e), (f), (g), and (h). The rule also provides new data handling provisions in subdivision(i). Rules 218.2 and 218.3 were further amended in September 2022. Rule 218.2 was amended to further specify the recertification requirement related to Executive Officer discretion; and Rule 218.3 was amended to provide an option to validate and accept data that would fall in a monitoring gap for a dual range analyzer and add specifications on mass emission calculations and data substitution procedures.

The proposed CO CEMS for the Unit 8 CCGS will meet the requirements of Rules 218, 218.1, 218.2, and 218.3.

Rule 401 – Visible Emissions - The proposed combustion turbine of the Unit 8 CCGS will fire natural gas as well as natural gas and hydrogen gas blend; therefore, visible emissions are not expected and Unit 8 CCGS is expected to be in compliance with Rule 401.

Rule 402 – Nuisance - Nuisance problems are not expected under normal operating conditions of the Unit 8 CCGS and all equipment that will be utilized at Unit 8 CCGS. Thus, the operation of Unit 8 CCGS will be in compliance with Rule 402.

Rule 403 – Fugitive Dust - This rule requires use of best available control measures to minimize fugitive dust formation from “active operations” including but not limited to earth moving, construction, and vehicular movement. The rule prohibits active operations from causing visible emissions that extend beyond the facility’s fence line. LADWP plans to use best available control measures during the construction of the project in accordance with the EIR. Compliance with Rule 403 is therefore expected.

Rule 407 – Liquid and Gaseous Air Contaminants - This rule limits the CO emissions to 2,000 ppm maximum and the sulfur dioxide (SO2) emissions to 500 ppm for equipment not subject to the emission concentration limits of Rule 431.1. Since Unit 8 CCGS will be subject to Rule 431.1, the only limit that applies is the 2,000 ppm for CO emissions.

CO limit - In accordance with the BACT requirements of other SCAQMD rules, Unit 8 CCGS will be provided with an oxidation catalyst. The Unit 8 CCGS oxidation catalyst will be capable of reducing CO emissions to 1.5 ppmvd at 15 percent O_2 except during startup and shutdown periods. The combustion turbine will combust pipeline natural gas or a blend of natural gas and hydrogen gas. Therefore, the operation of Unit 8 CCGS will be in compliance with Rule 407. Compliance with CO will be verified through CEMS data.

Rule 409 – Combustion Contaminants - The rule limits particulate matter (PM) emissions (from combustion) to 0.1 grains/scf at 12 percent CO2, averaged over 15 minutes. The Unit 8 CCGS is expected to meet the PM emission limit of 0.1 grains/scf; therefore, the operation of the Unit 8 CCGS will be in compliance with Rule 409. Compliance will be verified through the initial performance test.

Rule 429.2 – Startup and Shutdown Exemption Provisions for Oxides of Nitrogen from Electricity Generating Facilities - The proposed Unit 8 CCGS is required to comply with startup and shutdown duration limits for electric generating units listed in Table 2 of Rule 429.2. The equipment manufacturers have provided startup and shutdown durations in compliance with Rule 429.2. Therefore, the proposed Unit 8 CCGS will be in compliance with Rule 429.2.

Rule 431.1 – Sulfur Content of Natural Gas - The natural gas that will be supplied to Unit 8 CCGS is expected to comply with the 16 ppmv sulfur limit (calculated as hydrogen sulfide) specified in Rule 431. Therefore, the requirements of Rule 431.1 will be met.

The natural gas proposed to be used for blending with 30% hydrogen is also expected to comply with the 16 ppmv sulfur limit (calculated as hydrogen sulfide) specified in Rule 431. There will be no sulfur in hydrogen proposed to be used for blending. Therefore, the requirements of Rule 431.1 will be met when using natural gas and hydrogen blend.

Rule 475 – Electric Power Generating Equipment - According to Rule 475, combustion contaminants (particulate matter, PM_{10}) from power generating equipment with a net power output of more than 10 MW and installed after May 7, 1976, cannot exceed the following two limits: (a) 11 lb/hr and (b) 0.01 grains/scf @ 3 percent O_2 on a dry basis. The combustion contaminant emission data provided by the vendors for all three options of the proposed Unit 8 CCGS are less than the emission limit of 11 lb/hr. In addition, combustion contaminant emissions estimated by LADWP for all the three proposed options of the Unit 8 CCGS were less than the 0.01 grains/scf @ 3 percent O_2 on a dry basis. Therefore, the combustion turbine will be in compliance with Rule 475. Compliance will be verified through the initial performance test.

Rule 1135 – Emissions of NOx From Electricity Generating Facilities - Rule 1135 limits NOx emissions from combined cycle gas turbines to 2 ppmvd at 15% oxygen. This limit does not apply during startup and shutdown, which are pursuant to Rule 429.2. Unit 8 CCGS shall comply with SCAQMD Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for NOx Emissions to demonstrate compliance with the NOx emission limit of 2 ppmvd.

Regulation XIII – New Source Review

The proposed project will be subject to Best Available Control Technology (BACT), modeling, and offsets requirements of New Source Review. A discussion is presented below on the applicability and compliance with these requirements.

Rule 1303(a) – Best Available Control Technology - The BACT refers to the most stringent emission limitation or control technique. BACT definition of the SCAQMD is also consistent

with the federal Lowest Achievable Emission Reduction (LAER) definition under the federal non-attainment New Source Review program.

BACT Assessment for Unit 8 CCGS – California Air Resources Board published a document entitled "Guidance for Power Plant Citing and Best Available Control Technology" dated September 1999. In this document, CARB summarized the required BACT for natural gas-fired CCGS. The use of hydrogen or hydrogen blends in CCGS is a recent development and for this reason, there is currently no guidance from CARB for hydrogen-fired turbines. Other than the USEPA RACT/BACT/LAER Clearinghouse (RBLC) database, repositories such as CARB's BACT Clearinghouse database and CARB's BACT guidelines for power plants as well as the SCAQMD BACT Guidelines Manual do not contain BACT determinations for hydrogen-powered gas turbines. However, major turbine Original Equipment Manufacturers (OEMs) are upgrading their equipment to ensure that they meet the current BACT requirements for natural gas turbines such as those published by CARB.

NOx BACT for Unit 8 CCGS – Based on the review of BACT levels for recently approved large hydrogen-fired combustion turbines that are similar in capacity to the proposed Unit 8 CCGS, it was determined that dry low-NOx (DLN) burners (for combustion control) and SCR have been permitted to achieve a NOx emission rate of 2.0 ppm (at 15 percent O_2) 1-hour average except during startup and shutdown periods. Therefore, DLN and SCR with ammonia injection (post-combustion control), which are designed to achieve a NOx emission limit of 2.0 ppmvd (at 15 percent O_2) on a 1-hour average during normal operation, are considered BACT for Unit 8 CCGS during normal operating conditions. This limit does not apply during startup and shutdown periods which are subject to a different set of mass limits based on fuel consumption and duration.

CO BACT for Unit 8 CCGS – Based on the review of recent CO BACT determination for hydrogen-fired gas turbines obtained from the RBLC, an oxidation catalyst with a limit of 1.5 ppmvd (at 15 percent O_2) for 1-hr average concentration except during the startup and shutdown periods is considered BACT. Therefore, an oxidation catalyst with a CO emission limit of 1.5 ppmvd (at 15 percent O_2) for a 1-hr average concentration is considered BACT for Unit 8 CCGS during normal operating conditions. This limit does not apply during startup and shutdown periods which are subject to a different set of mass limits based on fuel consumption and duration.

VOC BACT for Unit 8 CCGS – The proposed BACT level of 2 ppmvd (at 15 percent O_2) for the Unit 8 CCGS for VOC control with an oxidation catalyst during baseload operating conditions is consistent with the stringent level found among recent BACT determinations for hydrogen-fired combustion turbines. Therefore, an oxidation catalyst with a VOC emission limit of 2 ppmvd (at 15 percent O_2) for a 1-hr average concentration is considered BACT for Unit CCGS during normal operating conditions. This limit does not apply during startup and shutdown periods which are subject to a different set of mass limits based on fuel consumption and duration.

SO_2 and PM_{10} BACT for Unit 8 CCGS - Sulfur dioxide and PM_{10} emissions at the Unit 8 CCGS will be controlled using clean-burning hydrogen and pipeline quality natural gas. This has been extensively used for controlling SO_2 and PM_{10} emissions from combustion turbines in California and throughout the United States. Therefore, the use of hydrogen gas and natural gas blend is considered to be SO_2 and PM_{10} BACT for Unit 8 CCGS combustion turbine.

Ammonia (NH3) BACT for Unit 8 CCGS - Rule 1303 also requires the use of BACT for NH3 emissions. The 1999 CARB BACT guidance recommends ammonia BACT levels for large natural gas turbines set at not more than 5 ppmvd at 15 percent O_2. LADWP is

proposing to meet the required 5-ppmvd ammonia slip limit. Therefore, the operation of the Unit 8 CCGS will be in compliance with the ammonia BACT requirements of 5 ppmvd.

BACT for Wet Surface Air Cooler (WSAC) for Unit 8 CCGS - SCAQMD Rule 219 exempts the cooling towers from SCAQMD permitting requirements. Nevertheless, the wet surface air cooler (cooling tower) will be designed with a drift eliminator efficiency of 0.0005%, which will comply with all BACT requirements. Although the SCAQMD LAER/BACT database does not identify a guideline for cooling towers, the San Joaquin Valley Air Pollution Control District (SJVAPCD) BACT guideline lists a high efficiency drift eliminator of 0.0005%, which is consistent with the proposed BACT for the Unit 8 CCGS Wet Surface Air Cooler.

Regulation XXX – Title V

LADWP's existing SGS facility is subject to Title V requirements. The addition of the new Unit 8 CCGS is considered a Significant Permit Revision as defined in Rule 3000.

The facility is required to provide public notification of the SGS Units 1 and 2 Green Hydrogen-Ready Modernization Project. USEPA will also be provided with this information for their review comments (45-day review period). The Title V public notice will be combined with Rule 212 notice, which is also required for this project.

STATE REGULATIONS

California Environmental Quality Act (CEQA)

An EIR is being prepared for this project, with LADWP as the lead agency.

FEDERAL REGULATIONS

40 CFR Part 60 Subpart KKKK – NOx Emission Limits for New Stationary Combustion Turbines – Under this regulation, the term "stationary combustion turbine," includes combined and simple cycle turbine units. Units installed after February 18, 2005, must comply with this regulation which includes standards for NOx and SO_2 along with associated monitoring, reporting, recordkeeping, and testing requirements. Emission standards apply at points in the exhaust flow path that are downstream of the duct burner.

The Unit 8 CCGS will be subject to Subpart KKKK because the heat input is greater than 10.7 gigajoules per hour (10 MMBtu per hour).

The NOx standard for units firing natural gas and rated at greater than 850 MMBtu/hr heat input, is 15 ppm at 15% O_2 (or 54 ng/J of useful output or 0.43 lbs/MWhr). Compliance is determined on a 30-unit operating day rolling average, where "unit operating day," is defined as a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted in the unit.

The proposed NOx limit for the Unit 8 CCGS is 2 ppmvd; thus, the Unit 8 CCGS turbine will be in compliance with NOx concentration limit of this Rule.

The SO_2 standard is 110 ng/J (or 0.9 lbs/MWhr) gross output. SOx emissions from the Unit 8 CCGS will be less than 0.9 lbs/MWhr; thus, the Unit 8 CCGS turbine will be in compliance with SOx emission limit of this Rule.

40 CFR Part 60 Subpart TTTT – Standards of Performance for Greenhouse Gas Emissions for Fossil Fuel-Fired Electric Generating Units - EPA has promulgated standards of performance for GHG emissions for steam generating units, integrated gasification combined cycle (IGCC), or stationary combustion turbine that commenced

operation after January 8, 2014 or commenced reconstruction after June 18, 2014 that meets the following applicability conditions: (a) has a base load rating greater than 260 GJ/h (250 MMBtu/h) of fossil fuel (either alone or in combination with any other fuel); and (b) serves a generator or generators capable of selling greater than 25 MW of electricity to a utility power distribution system. The Unit 8 CCGS will be subject to Subpart TTTT as it meets these applicability requirements.

The CO_2 limit for base load natural gas combined-cycle turbines is 1,000 lb/MWh-gross (1,030 lb/MWh-net). The CO_2 emission rate from the Unit 8 CCGS turbine is estimated to be less than 1,030 lb/MWh-net; thus, the Unit 8 CCGS is expected to be in compliance with this rule.

40 CFR Part 60 Subpart YYYY – NESHAPS for Combustion Turbines - EPA has promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to combustion turbines. NESHAPs apply to sources that are classified as major for hazardous air pollutants. A major source is a facility that has emissions of 10 tons per year of any single hazardous air pollutant (HAP) or 25 tons per year of a combination of HAPs. Subpart YYYY establishes national emission limitations and operating limitations for hazardous air pollutants from stationary combustion turbines.

Emissions of HAPs from the SGS facility were estimated and formaldehyde was identified as the individual HAP of concern with the highest emission rate. However, formaldehyde emissions were estimated to be under the 10 ton/year (major source threshold). The total HAP emissions were also estimated to be under the 25-ton/year (major source threshold). Therefore, the SGS facility following the completion of the proposed project (Unit 8 CCGS) will be exempt from Subpart YYYY requirements.

40 CFR Part 64 – Compliance Assurance Monitoring (CAM) - The CAM regulation applies to major stationary sources, which use control equipment to achieve a specified emission limit. The Unit 8 CCGS (combustion turbine) is a major source of NOx, CO, and VOC emissions, and will be subject to a BACT limit for each of these pollutants. Control equipment in the form of an SCR will be used to comply with the NOx emission limit of 2.0 ppm (1-hr average limit for Unit 8 CCGS), while an oxidation catalyst will be used to meet the CO emission limit of 1.5 ppm (1-hr average limit for Unit 8 CCGS) and VOC emission limit of 2 ppm (1-hr average limit for Unit 8 CCGS).

As a major source, combustion turbines are required to have NOx CEMS under Rule 2012. The use of a CEMS to show compliance with an emission limit is exempt from CAM regulation.

The combustion turbines are required to use CO CEMS under Rule 1303-BACT. The use of a CEMS to show compliance with an emission limit is exempt from CAM regulation.

The CAM rule also applies to VOC emissions because VOC emissions are subject to an emission limit of 2 ppm. An oxidation catalyst will be used to reduce VOC emissions below the compliance emission limit.

For the Unit 8 CCGS, the oxidation catalyst will have an optimal temperature window of approximately 500°F and 700°F. The facility is required to maintain a temperature gauge in the exhaust, which will measure the exhaust temperature on a continuous basis and record the temperature on an hourly basis. The exhaust temperature is required to be at least 500°F (with exceptions for startups and shutdowns). This will ensure that the oxidation catalyst is operating properly. In addition, compliance with the VOC permit limit will be determined by periodic source testing. Based on the above, compliance with the CAM rule is expected.

40 CFR Parts 70 – State Operating Permit Program - 40 CFR Part 70 pertains to the operating permits program for stationary sources of air pollution. It establishes requirements for the issuance, renewal, and modification of operating permits. Permits must include emission limitations and standards of all applicable requirements, permit duration, and monitoring and related recordkeeping and reporting requirements. Major modifications to the SGS permit will be reviewed by USEPA.

40 CFR Parts 72, 73, 74 and 75 – Acid Rain Program and Monitoring Requirements - The SGS currently has SO_2 allocations under the acid rain program, allocated to their Boilers 1 and 2. The Acid Rain Program is similar to RECLAIM in that facilities must hold enough SO_2 Allowances (or emission credits) to cover their actual emissions. An affected facility can install control technology, reduce operations, or purchase SO_2 allowances to comply with the acid rain program. An affected facility is also required to monitor SO_2 emissions through use of fuel gas meters and gas constituent analysis (use of emission factors is also acceptable in certain cases) or with the use of exhaust gas CEMS. SGS will comply with the monitoring requirements of the Acid Rain Program provisions with the use of gas meters in conjunction with natural gas default sulfur data as allowed by the Acid Rain regulations. Compliance with this rule is expected.

Since hydrogen fuel does not contribute to the formation of SOx, the Acid Rain Program is not directly affected by the use of hydrogen fuel. In addition, 40 CFR Part 75 does not directly address the use of hydrogen or its impact on emissions monitoring.

40 CFR Part 98 – Mandatory Greenhouse Gas Reporting - 40 CFR Part 98 is referred to as the Greenhouse Gas Reporting Program (GHGRP). It applies to direct greenhouse gas emitters with a reporting threshold of 25,000 metric tons or more of carbon dioxide equivalent per year. LADWP SGS will comply with the reporting requirements of the GHGRP.

Appendix A

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project Final Environmental Impact Report State Clearinghouse No. 2023050366

Introduction

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines to provide for monitoring of the mitigation measures required by certification of the Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project (proposed project) Final Environmental Impact Report (Final EIR). Section 21081.6 of the Public Resources Code and Section 15091(d) of the CEQA Guidelines require public agencies to "adopt a reporting or monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." The lead agency must define specific reporting and/or monitoring requirements to be enforced during project implementation prior to final approval of the proposed project.

The Los Angeles Department of Water and Power (LADWP) is the lead agency for the proposed project and is responsible for administering and implementing the MMRP. The MMRP stipulates how all required mitigation measures are to be implemented and completed during the appropriate project phase. It also facilitates documentation necessary to verify that mitigation measures were in fact properly implemented.

Mitigation Monitoring and Reporting Program Procedures

This MMRP gives LADWP the primary responsibility for taking all actions necessary to implement the mitigation measures according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. LADWP's designated environmental project manager will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to remedy problems. LADWP, at its discretion, may delegate responsibility for measure implementation and monitoring, or portions thereof, to other responsible individuals, such as a licensed contractor. Specific responsibilities for LADWP include:

- Coordination of all mitigation monitoring activities
- Management of the preparation, approval, and filing of monitoring or permit compliance reports
- Maintenance of records concerning the status of all approved mitigation measures
- Quality control assurance of field monitoring personnel
- Coordination with other agencies regarding compliance with mitigation or permit requirements
- Reviewing and recommending acceptance and certification of implementation documentation
- Acting as a contact for interested parties or surrounding property owners who wish to register complaints, observations of unsafe conditions, or environmental violations; verifying any such circumstances; and developing any necessary corrective actions

Resolution of Noncompliance Complaints

Any person or agency may file a complaint regarding noncompliance with the mitigation measures addressed in the MMRP. The complaint shall be directed to LADWP's Environmental Planning and Assessment Group (111 North Hope Street, Room 1044, Los Angeles, CA 90012 or (213) 841-0750) in written form providing detailed information on the purported violation. LADWP will investigate any complaints filed to determine the validity of the complaint. If noncompliance with a mitigation measure is verified, LADWP will take the necessary action(s) to remedy the violation. The complainant will receive written confirmation indicating the results of the investigation or the final corrective action that was implemented in response to the specific noncompliance issue.

Mitigation Monitoring and Reporting Program Matrix

The MMRP is organized in a matrix format. The first column identifies the mitigation measure number. The second column identifies the mitigation measure. The third column, entitled "Time Frame for Implementation," refers to when monitoring will occur. The timing for implementing mitigation measures and the definition of the approval process has been provided to assist LADWP staff to plan for monitoring activities. The fourth column, entitled "Responsible Monitoring Agency," refers to the agency responsible for ensuring that the mitigation measure is implemented. The fifth column, entitled "Verification of Compliance," has sub-columns for initials, date, and remarks. This last column will be used by the lead agency to document the person who verified that the mitigation measure was satisfactorily implemented, the date on which this verification occurred, and any other remarks. The mitigation measures in the matrix are presented by environmental issue area.

Mitigation Monitoring and Reporting Program

Scattergood Generating Station Units 1 and 2 Green Hydrogen-Ready Modernization Project
Final Environmental Impact Report
State Clearinghouse No. 2023050366

Number	Mitigation Measures (MM)	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
AIR QUALITY						
MM-AQ-1	**Tier 4 Final Engines.** Offroad construction equipment greater than 80 horsepower shall be equipped with Tier 4 Final engines.	During construction	LADWP			
BIOLOGICAL RESOURCES						
MM-BIO-1	**Nesting Bird Surveys.** 1. A pre-construction nesting bird survey shall be conducted by a qualified biologist within 72 hours prior to the start of project construction activities to determine whether active nests are present within or directly adjacent to construction zones. Following completion of the survey, a report shall be prepared to document the location of any nests found, their status (i.e., eggs or hatchlings present), the species of bird, and existing biological conditions of the project area. If an active nest is found, the following shall be implemented to minimize impacts to the nest. a. A qualified biologist shall determine if a nest avoidance buffer zone is necessary to restrict construction activities in proximity to the nest to protect the nest from failing. In determining the need for and establishing the size of any buffer zone, the qualified biologist shall take into account existing baseline conditions (e.g., topography,	Prior to and during construction	LADWP			

Number	Mitigation Measures (MM)	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	buffering buildings or other structures, etc.). In addition, observed avian response to disturbances related to existing station operations (e.g., noise and human activity) shall factor into the requirement for and size of a nest avoidance buffer. b. Any avoidance buffers required around active nests shall be delineated on site with bright flagging or other means, for easy identification by project personnel. The resident engineer and construction supervisor will be notified of the nest and the buffer limits to ensure it is maintained. c. The qualified biologist shall monitor all detected nests, including those with and without an established buffer, at least once per week to determine whether birds are being disturbed. If signs of disturbance or stress are observed, the qualified biologist shall implement adaptive measures to reduce disturbance. These measures could include placing visual screens or sound dampening structures between the nest and construction activity or establishing or increasing buffer distances. The qualified biologist shall monitor each active nest until they determine that nestlings have fledged and dispersed, or the nest is no longer active. Until such a determination is made, construction-related activities that, in the opinion of the qualified biologist, might disturb nesting activities shall be prohibited within nest buffer zones.					

Number	Mitigation Measures (MM)	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
MM-BIO-2	**Pre-Project Surveys.** Prior to the start of project-related activities, two pre-project surveys shall be conducted within the proposed work area within a one-week period. Pre-project surveys shall include: a. General surveys for botanical and wildlife resources; b. Identification of any active bird nests and/or animal burrows (if active, they should be recorded, monitored for species observations, and mapped); and c. Work areas with flowing or standing water shall be visibly surveyed for any aquatic species that may be impacted by project activities. The surveys shall be conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (see https://www.wildlife.ca.gov/Conservation/Plants/Info). If sensitive or special status species are observed during the pre-project surveys, CDFW shall be notified, LADWP shall set avoidance buffer zones to reduce disturbance to the species (in coordination with CDFW), and LADWP shall monitor the species until either the project has been completed or the species has naturally and voluntarily left the area.	Prior to construction	LADWP			

Number	Mitigation Measures (MM)	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
GEOLOGY AND SOILS						
MM-GEO-1	**Paleontological Monitoring.** Prior to grading or excavation, LADWP shall retain a Society for Vertebrate Paleontology (SVP)-qualified paleontologist to monitor or supervise monitoring of earth-moving activities in sedimentary rock material other than topsoil or fill material. A qualified paleontologist is a professional with a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research (i.e., the identification of fossil deposits, application of paleontological field and laboratory procedures and techniques, and curation of fossil specimens), and at least four months of supervised field and analytic experience in general North American paleontology. Paleontological monitoring is required during ground disturbance in undisturbed geologic contexts (i.e., bedrock and outcrops below existing asphalt and base) which have the potential to contain significant paleontological resources. Ground disturbance refers to activities that impact subsurface geologic deposits, such as grading, excavation, boring, etc. The qualified paleontological monitor shall recommend when monitoring is required. Either geotechnical logs identifying subsurface conditions will be reviewed in order to identify at what depth undisturbed bedrock is to be encountered, or work shall be monitored on a part-time basis until undisturbed sediments are observed, after which the frequency of monitoring will be determined with the input of the qualified paleontological monitor based on the nature and depth of ground-disturbing	Prior to and during construction	LADWP			

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				Initials	Date	Remarks
	activities taking place and the sediments encountered. Activities taking place in current topsoil or within previously disturbed fill sediments (e.g., clearing, grubbing, pavement removal or rehabilitation, and debris removal) do not require paleontological monitoring. Bedrock can occur at varying depths in different areas, and monitoring may be reduced or eliminated based on the recommendations of the qualified paleontologist. If no fossils have been recovered after 50 percent of excavation has been completed, monitoring may be modified to weekly spot-check monitoring at the discretion of the qualified paleontologist. The qualified paleontologist may recommend reduced monitoring based on observations of specific site conditions during initial monitoring (e.g., if the geologic setting precludes the occurrence of fossils). If any paleontological resources are discovered at the project site during ground-disturbance activities, the paleontological monitor will notify the on-site construction supervisor and the LADWP Environmental Project Manager, who shall temporarily halt work all such activities within 50 feet of the discovery. LADWP shall consult with the qualified paleontologist to assess the significance of the find to determine the appropriate treatment. The assessment will follow the SVP's Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources in determining appropriate identification, evaluation, disclosure, avoidance, recovery, and/or curation. If any find is determined to be significant, appropriate avoidance measures recommended by the qualified paleontologist must be followed unless avoidance is determined to be infeasible in relation to the implementation of the proposed project. If					

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	avoidance is infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Appropriate treatment as determined by the qualified paleontologist shall be implemented with respect to the evaluation and recovery of fossils, after which the on-site construction supervisor shall be notified that work may continue in the location of the fossil discovery. Any fossils recovered during mitigation shall be cleaned, identified, cataloged, and curated with an accredited and permanent scientific institution with a research interest in the materials.					
HAZARDS AND HAZARDOUS MATERIALS						
MM-HAZ-1	**Soil/Sediment Management Plan.** A Soil/Sediment Management Plan shall be developed by the construction contractor and reviewed and approved by LADWP, and the plan shall be implemented prior to excavation activities. The Soil/Sediment Management Plan shall include a discussion of the anticipated/possible soil/sediment concentrations based on sediment sampling data from Scattergood. The Soil/Sediment Management Plan shall also require sampling to be conducted to characterize the excavated soil and sediment; the decision process to be used to characterize the waste based on the sampling conducted; the proposed management of the soil/sediment, including discussion of material segregation, temporary storage locations, containers, and labeling; and possible disposal facilities/locations. In addition, the Soil/Sediment Management Plan shall also include a discussion of adjacent areas that could potentially impact the project site. While no known releases from surrounding areas are known to have occurred, there is a potential that potential releases from these areas could have	Prior to and during construction	LADWP			

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	impacted the project site. The plan would include strategies for management of contaminated soils encountered during excavation, which would be implemented as required during construction. A project-specific Health and Safety Plan shall be prepared in accordance with the Occupational Safety and Health Administration standards and included as part of the Soil/Sediment Management Plan. Copies of the Soil/Sediment Management Plan and Health and Safety Plan shall be maintained on site during excavation and removal of hazardous materials from the project site. All workers on the project site shall be made familiar with these documents.					
MM-HAZ-2	**Waste Management Plan.** A Waste Management Plan shall be developed by the construction contractor and reviewed and approved by LADWP, and the plan shall be implemented during construction activities. The Waste Management Plan shall include a discussion of the anticipated non-soil/sediment wastes that may be encountered or generated during the proposed project, the locations of these potential wastes, details of special handling, proposed storage locations, containers and labeling, testing for waste characterization, and possible disposal/recycling facilities. Copies of the Waste Management Plan shall be maintained on site during construction and removal of materials from the project site. All workers on the project site shall be familiarized with the plan.	Prior to and during construction	LADWP			

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TRIBAL CULTURAL RESOURCES						
MM-TCR-1	**Cultural Resources Awareness Training.** All field supervisors and all construction workers shall participate in cultural resources awareness training prior to the initiation of project construction on project sites that involve ground-disturbing activities. The training shall be conducted by LADWP Environmental Affairs personnel and shall include a description of the types of cultural resources (including tribal cultural resources and human remains) that could inadvertently be encountered during ground-disturbing activities, the sensitivity of the resources, the legal basis for protection of the resources, and the penalties for unauthorized collection of or knowingly damaging the resources. The training shall address the proper procedures in the event of an inadvertent discovery of a cultural resource, including the immediate halting of work in the area of the discovery, notification of appropriate individuals of the discovery, the establishment of appropriate protective buffer zones around the discovery, and the continued avoidance of the protected area until the resource has been evaluated by qualified individuals and an appropriate treatment plan has been developed and implemented. These procedures shall be documented in a cultural resources monitoring plan (CRMP) that shall establish, in the event of an inadvertent discovery of cultural resources, monitoring procedures (including applicable archaeological and/or tribal monitors), notification procedures, key staff, and preliminary treatment measures for potential discoveries. The CRMP shall be written to ensure compliance with appropriate state and federal laws. The training presentation and CRMP shall be available to	Prior to and during construction	LADWP			

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				Initials	Date	Remarks
	additional supervisory or construction personnel who may join after project construction has begun.					
MM-TCR-2	**Inadvertent Discovery of a Tribal Cultural Resource.** In the event that a Native American resource is inadvertently discovered during project construction, the Native American tribe(s) that consulted on the proposed project pursuant to California Assembly Bill 52 shall be notified and be provided information about the find to allow for early input from the tribal representatives with regards to the potential significance and treatment of the resource. If, as a result of the resource evaluation and tribal consultation process, the resource is considered to be a tribal cultural resource in accordance with California Public Resources Code Section 21074, determined to be eligible for inclusion in the California Register of Historic Resources or a local register of historical resources, or determined to be significant by LADWP (the CEQA lead agency), a tribal monitor from a consulting Native American tribe shall be procured to monitor all remaining ground-disturbing activities in the area of the resource as specified by the Environmental Project Manager. The input of all consulting tribes shall be considered in the preparation of any required treatment plan for the resources prepared by the qualified archaeologist. Work in the area of the discovery may not resume until evaluation and treatment of the resource is completed and/or the resource is recovered and removed from the site. Construction activities may continue on other parts of the construction site while evaluation and treatment of the resource takes place.	During construction	LADWP and Native American Tribe			