Section 3.3 Energy

SECTION SUMMARY

In accordance with Appendix F of the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq.), this section describes existing conditions at the Proposed Project site, identifies potential impacts on energy consumption and conservation and evaluates the potential for any conflicts with renewable energy or energy efficiency plans that would result from implementation of the Proposed Project or an alternative.

Section 3.3, Energy, provides the following:

- A description of energy-consuming elements of the Proposed Project;
- The environmental setting with respect to energy in the Port of Los Angeles (Port), including energy supplies and use patterns;
- A summary of existing regulations and policies associated with energy consumption; and
- An impact analysis of the Proposed Project and alternatives, focusing on the use of fuel and electricity during construction and operation and consistency with state and local energy plans.

Key Points of Section 3.3:

Energy would be consumed by the Proposed Project and the Reduced Project Alternative (Alternative 2) in the form of electricity and liquid fossil fuels during construction and operation. During construction, liquid fuels would be used to power construction vehicles (diesel and gasoline), off-road equipment, and harbor craft (diesel). During operations, diesel would be used in off-road equipment, harbor craft, and lube oil delivery trucks, while marine diesel would be used to power marine tanker vessels. Electricity would be used to power various on-site stationary equipment and for general facility lighting. Mitigation measures imposed to reduce air quality impacts (see Section 3.1.5.1), including mitigation measure MM AQ-1 (On-Road Trucks Used During Construction), MM AQ-2 (Non-Road Construction Equipment), and MM AQ-3 (Port of Los Angeles Sustainable Construction Guidelines), would further reduce energy use, primarily by reducing fuel consumption.

Operational energy use by the Proposed Project is projected to become slightly more efficient over time in response to changes in marine terminal operations, increasing energy costs, and also in relation to compliance with federal, state, and local energy regulations and programs. In addition, MM AQ-6 (Vessel Speed Reduction Program) imposed to reduce operational air quality impacts would further reduce energy impacts by reducing fuel use by oceangoing vessels. The Proposed Project would not use non-renewable energy resources in a wasteful, inefficient, or unnecessary manner during construction or operation. Furthermore, the Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Accordingly, impacts related to energy use and conservation associated with construction and operation of the Proposed Project would be less than significant.

Similarly, given that the Reduced Project Alternative (Alternative 2) would have slightly lower construction energy usage but generally the same operational energy usage, impacts related to energy use associated with construction and operation of the Reduced Project Alternative (Alternative 2) would be less than significant. The No Project Alternative (Alternative 1) would consume less energy than the Proposed Project as there would be no construction or operational activities; the Marine Oil Terminal (MOT) would cease operations and termination clauses associated with existing entitlement would be carried out.

3.3.1 Introduction

This section describes the energy consumption and conservation elements of the Proposed Project, identifies potential impacts related to energy use that would occur as a result of implementation of the Proposed Project or alternatives, and imposes mitigation as required by Public Resources Code §21100, subd. (b)(3) to ensure that the Project avoids and reduces inefficient, wasteful and unnecessary energy consumption. The alternatives include the No Project Alternative (Alternative 1) and the Reduced Project Alternative (Alternative 2).

The Proposed Project consists of the construction and operation of a new Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS)-compliant berthing facility at Berths 150-151, including a new mooring dolphin at Berth 149, and associated landside improvements as described in Section 2 (Project Description).

3.3.2 Environmental Setting

The Project site is located at the Port of Los Angeles (Port) within the City of Los Angeles, which is in the southwest coastal area of the South Coast Air Basin (SCAB). The SCAB consists of the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. The SCAB covers an area of approximately 15,500 square kilometers (6,000 square miles) and is bounded on the west by the Pacific Ocean; on the north and east by the San Gabriel, San Bernardino, and San Jacinto mountains; and on the south by San Diego County. The Project site is located at the southern end of Pier "A" Street on approximately 13.8 acres of land, including approximately 1,800 feet of Turning Basin waterfront. The Project site is bounded by the TraPac Container Terminal (Berths 135-147) to the north, the West Basin to the west, the Turning Basin to the south, and Slip No. 1 to the east, as described in Section 2.4.2.

3.3.2.1 Electrical Service

The Los Angeles Department of Water and Power (LADWP) provides electrical services to the Port, including the Proposed Project area, and has adequate generation capacity to serve the Port's current customer load. LADWP has a net dependable energy generating capacity of about 8,100 megawatts (MW) to serve a peak Los Angeles-area demand of about 6,500 MW (LADWP 2022a). In 2021, LADWP customers consumed approximately 21,000 gigawatt-hours (GWh) of electricity (CEC 2022a). Currently, renewable energy sources account for approximately one-third of LADWP's capacity (Table 3.3-1). This is expected to increase over time in response to the requirement of Senate Bill 100 (SB 100), "The 100 Percent Clean Energy Act of 2018," that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by 2045 through the Renewables Portfolio Standard (RPS).

LADWP produces periodic updates of its *Power Strategic Long-Term Resource Plan* (SLTRP), which anticipates load growth and includes plans for new generating capacity or demand-side management programs to meet SB 100's RPS requirement noted above. The most recent update, the SLTRP 2022 (LADWP 2022b), provides the most appropriate setting for the electrical energy analysis. By 2045, largely as a result of increasing electrification of transportation, buildings, and industry, LADWP's annual load is expected to reach approximately 31,000 GWh, which is 50 percent greater than the 2021 load. The 2022 SLTRP identifies increases in generation and storage resources needed to ensure that system capacity remains adequate to meet forecasted consumption in LADWP's service area (LADWP 2022b).

Table 3.3-1. 2021 California and LADWP Electrical Energy System Profiles

Fuel Type	California Power Mix	LADWP Power Mix
Coal	3%	19%
Large Hydroelectric	9%	6%
Natural Gas	38%	26%
Nuclear	9%	14%
Renewables*	34%	35%
Other/Unspecified	7%	0%
Total	**100%**	**100%**

* "Renewables" includes solar, wind, geothermal, and small-scale hydroelectric generation facilities

Sources: CEC 2021; LADWP 2022b; rounding accounts for discrepancy in totals.

The industrial power station closest to the Port has four main 138-kilovolt (kV) supply lines, two from the Harbor Generating Station, and two from North Wilmington. Several other electrical power cables are distributed throughout the Harbor area, including the Proposed Project area.

The existing electrical loads for the MOT include transfer pumps (loading/offloading product), lube oil pumps, sump pumps, instrument air compressor and lighting. Total consumption of electricity for the MOT in 2021 was 596,800 kWh, which is approximately 49,733 kWh per month. The existing electrical equipment at the terminal is in the process of being replaced due to deterioration and reliability concerns (Harbor Engineer Permit Numbers 220315-054 and 221222-219). This new equipment includes a new transformer, Motor Control Center ("MCC"), modern switchgear and other ancillary equipment to support existing electrical loads. Except for the new transformer, this equipment is being housed in a new substation. In conjunction, LADWP will also replace one of their existing obsolete transformers with current technology.

3.3.2.2 Transportation Fuels

In 2021, California consumed approximately 13.8 billion gallons of gasoline (CEC 2022b) and approximately 3.1 billion gallons of diesel fuel (CEC 2022c). These figures correspond to approximately 38 million gallons per day of gasoline and 8.5 million gallons per day of diesel fuel. Other transportation fuel sources used in California include alternative fuels, such as alcohol- and biomass-based fuels, natural gas (compressed or liquefied), hydrogen, and electricity. However, these account for less than three percent of transportation energy demand (CEC 2020). Future demand for gasoline and diesel is not expected to increase substantially over existing levels as economic growth is counterbalanced by advances in fuel economy and market penetration of alternative fuels, most prominently by electricity, hydrogen, and natural gas in the medium- and heavy-duty vehicle sectors and electric vehicles in the light-duty vehicle sector (CEC 2018, 2020, 2022d).

3.3.3 Applicable Regulations

Numerous federal, state, and local laws have been established to regulate energy conservation and efficiency. Responsibilities for enforcing or executing these laws and regulations are governed by various state and local agencies, as described below. The

Proposed Project and alternatives would consume energy through on-site electricity consumption, fuel usage for off-road equipment, heavy-duty trucks, and marine sources (ocean going vessels and harbor craft).

3.3.3.1 Federal

Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, federal tax credits are available for fuel-efficient appliances and products such as hybrid vehicles and energy-efficient buildings. Additionally, tax credits are given for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment. The Act also established the first renewable fuel volume mandate in the United States.

The Energy Independence and Security Act of 2007 expanded the Renewable Fuel Standard program to include diesel fuel and to increase the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.

USEPA and NHTSA Joint Rulemaking for Vehicle Standards (2011, 2024)

In 2011, the U.S. Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) finalized regulations to reduce greenhouse gas emissions and improve fuel efficiency of medium- and heavy-duty vehicles, including large pickup trucks and vans, semi-trucks, and all types and sizes of work trucks and buses. In subsequent rulemakings, the agencies extended the national program of fuel economy standards to medium- and heavy-duty vehicles of model years 2014-2018, including large pickup trucks and vans, semi-trucks, and all types and sizes of work trucks and buses. In 2024, the USEPA finalized a revised rule setting new, more stringent emission standards for light and medium-duty vehicles starting with the 2027 model year. The new standards would be phased in over model years 2027 through 2032. However, in March 2025, USEPA announced its intention to terminate that regulation, and its status with regard to the Proposed Project remains unclear (see Section 2.2 of Appendix B1, Air Quality Regulations/Methodology and Air Quality and GHG Emissions/Energy).

3.3.3.2 State

Renewables Portfolio Standard

The Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill 1078, accelerated in 2006 under Senate Bill 107, and expanded in 2011 under Senate Bill 2. Qualifying renewables under the RPS include bioenergy such as biogas and biomass, small hydroelectric facilities (30 MW or less), wind, solar, and geothermal energy. The CPUC and the CEC jointly implement the RPS program. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directed the CARB under its AB 32 authority to enact regulations to help the state meet its RPS goal of 33 percent renewable energy by 2020.

Senate Bill 350 - Clean Energy and Pollution Reduction Act of 2015

Senate Bill 350 (SB 350), enacted on October 7, 2015, provides a new set of objectives in clean energy, clean air, and pollution reduction. The objectives include increasing the procurement of California's electricity from renewable sources from 33 percent to 50 percent by December 31, 2030, and doubling the energy efficiency savings in electricity and natural gas final end uses of retail customers by 2030.

Senate Bill 100/Executive Order B-55-18

On September 10, 2018, Governor Brown signed Senate Bill 100 (SB 100), establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the Renewable Portfolio Standard (RPS) goals that were established by SB 350, increasing electricity from renewable sources from 50 percent to 60 percent by 2030 with specific interim targets. The updated RPS goals are considered achievable, since many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

On the same day that SB 100 was signed, Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net greenhouse gas [GHG] emissions) by 2045 and to maintain net negative emissions thereafter.

Executive Order N-79-20

In September 2020, Governor Newsom signed Executive Order N-79-20, which sets a new state goal that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035; that 100 percent of in-state sales of medium- and heavy-duty vehicles in the state be zero-emission by 2045 for all operations where feasible; and that by 2035 all in-use drayage trucks and all off-road vehicles and equipment will be zero emission by 2035 where feasible. This order calls upon state agencies, including the California Air Resources Board (CARB) , the California Energy Commission (CEC), the California Public Utilities Commission (CPUC), the Department of Finance, and others, to develop and propose regulations and strategies to achieve these goals, and it was the first step towards the development of some regulations recently adopted by CARB, such as the Advanced Clean Cars II, Advanced Clean Trucks and the Advanced Clean Fleets (see Appendix B1, Section 2.3). However, because several of these regulations depend on federal authorization under the Clean Air Act, subsequent federal actions have altered their regulatory status. On January 13, 2025, CARB withdrew its request to USEPA for a waiver and authorization for the Advanced Clean Fleets Regulation (CARB 2025). In addition, on June 13, 2025, the waiver associated with the Advanced Clean Cars II regulation was revoked (U.S. Congress 2025). As a result, the implementation and enforcement of these regulations may be subject to further regulatory and legal developments.

CARB Programs and Rules

CARB has promulgated a number of rules and regulations that affect the fuel economy of mobile sources (specifically, on-road vehicles and off-road equipment). Key examples include the Mobile Source Strategy and the Airborne Toxics Control Measures (ATCM) to limit idling.

The 2020 Mobile Source Strategy (CARB 2021) is a framework that identifies the levels of cleaner technologies necessary to meet CARB's fuel economy goals and high-level

regulatory concepts that would allow California to achieve the technology trajectories identified through scenario planning and, consequently, meet California's goals. Further, these concepts maximize the criteria pollutant reductions by going to zero-emission where feasible. Specifically, for medium- and heavy-duty vehicles, the scenarios call for the deployment of approximately 1.4 million medium- and heavy-duty zero-emission vehicles (ZEVs) in California by 2045. Statewide, the concepts in the 2020 Mobile Source Strategy could achieve criteria pollutant nitrogen oxides (NO_X) reductions of over 590 tons per day in 2037, and reduce mobile source fuel consumption by 9.5 billion gallons of gasoline and 3.0 billion gallons of diesel equivalent in 2045. This equates to a well-to-wheel GHG emissions reduction of approximately 94 million metric tons of carbon dioxide equivalent in 2045.

In 2004, CARB adopted the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13, CCR §2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. The measure limits idling of diesel-fueled commercial vehicles to no more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower, such as bulldozers and loaders, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB in 2007 and revised in 2022 aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (Title 13, CCR §2449). The original compliance schedule required full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets. The 2022 amendments are to be phased in beginning in 2024 with completion by the end of 2036. These amendments aim to further reduce emissions from the off-road sector by requiring fleets to phase out the oldest and highest polluting off-road diesel vehicles, prohibiting the addition of high-emitting vehicles to fleets, and requiring the use of 99-100 percent renewable diesel fuel.

On March 15, 2021, CARB approved the final Advanced Clean Trucks Regulation which sets an accelerated schedule to transition medium and heavy-duty vehicles from Class 2b to Class 8 towards zero-emissions technologies. By 2035, 55 percent of sales of Class 2b through 3 trucks, 75 percent of Class 4 through 8 trucks, and 40 percent of truck tractors would need to be zero-emission vehicles. Cement-hauler trucks, which tend to be Class 8 vehicles, may be affected indirectly by this rule, shifting some of the fleet's fuel consumption to electricity, although the rule does not explicitly address this truck type.

In addition, the Advanced Clean Fleet Regulation (ACF) was proposed by CARB in April 2023 with the goal of achieving zero-emission truck and bus fleets by 2045 for certain market segments such as government fleets, last mile delivery, and drayage applications. However, since the ACF rule did not receive a waiver by the USEPA, and California has recently withdrawn its request for a waiver, no emissions reduction credits from this rule, as well the ACT rule, were quantified in the analysis.

3.3.3.3 Local

Executive Directive No. 10

Mayor Villaraigosa issued Executive Directive No. 10 in 2007 to address the City's environmental stewardship practices. In particular, the directive requires City departments to create a "Statement of Sustainable Building Policies" that includes, among other elements, sustainable design and energy efficiency. City departments are required to submit annual sustainability reports to the Mayor's office.

Sustainable City pLAn/Green New Deal

In 2015, the City of Los Angeles developed the Sustainable City pLAn (The pLAn) as a roadmap to a sustainable city through 2035. The pLAn was updated in 2019 as the Green New Deal (City of Los Angeles 2019) with accelerated targets for renewable energy and more ambitious programs. The pLAn contains strategies to address current and future climate change impacts, including initiatives aimed at energy conservation. These include energy-efficient buildings, leadership in carbon reduction efforts, and changes in mobility policies, particularly zero-emissions goods movement goals.

LAHD Sustainable Construction Guidelines

As part of Los Angeles Harbor Department's (LAHD) overall environmental goals and San Pedro Bay Ports Clean Air Action Plan (POLB and POLA 2017) strategies, any construction at the Port must follow the Sustainable Construction Guidelines, adopted in February 2008, and updated in 2009 (LAHD 2009); compliance with the Guidelines would be a lease requirement for the Proposed Project. The Guidelines reinforce and require sustainability measures under construction contracts, addressing a variety of emission sources that operate at the Port during construction. Some of these strategies, in parallel, reduce energy consumption from construction sources. Examples of sources affected include ships and barges used to deliver construction related materials, harbor craft, dredging equipment, haul and delivery trucks, and off road construction equipment. These Guidelines are further described in Appendix B1: Air Quality Regulations/Methodology and Air Quality and GHG Emissions/Energy.

Port of Los Angeles Green Building Policy

In 2007 the Los Angeles Board of Harbor Commissioners adopted the Green Building Policy requiring Leadership in Energy and Environmental (LEED) Gold Rating as the minimum standard for new construction of most buildings of at least 7,500 square feet as well as the incorporation of solar power and best available technology for energy efficiency for all new Port buildings.

San Pedro Bay Ports Clean Air Action Plan

The San Pedro Bay Ports Clean Air Action Plan (CAAP) is a planning and policy document developed by the ports of Los Angeles and Long Beach with the participation and cooperation of USEPA, CARB, and the South Coast Air Quality Management District (SCAQMD) staff. The CAAP sets goals and implementation strategies to reduce air emissions and health risks associated with port operations. Emission reduction measures included in the CAAP that impact energy consumption, energy efficiency, and renewable energy usage include the Vessel Speed Reduction Program (CAP Measure SPBP-OGV1) under which vessels transiting to and from the Port reduce their speed within 40 nautical miles of the Point Fermin Lighthouse, thus saving fuel. The 2017 CAAP update includes GHG reduction goals below 1990 levels for port-related sources

of 40 percent by 2030 and 80 percent by 2050. GHG reductions can be achieved by reducing energy consumption and increasing use of renewable energy sources. In addition, the 2017 CAAP Update incorporates the recent commitment by the mayors of Los Angeles and Long Beach to move towards zero emissions at the Ports, including setting goals of zero-emissions cargo-handling equipment by 2030 and zero-emissions heavy-duty trucks by 2035. Zero emission equipment and trucks will generally be more energy efficient and use greater proportions of renewable energy sources than existing equipment and vehicles. The updated CAAP also includes a CAAP Implementation Stakeholder Advisory Group to advise the Ports on details of CAAP implementation and ongoing operational efficiency and energy conservation programs, a commitment to the nationwide Green Ports Collaborative, and a commitment to a joint effort to secure funding for necessary equipment purchases and infrastructure development.

3.3.4 Impacts and Mitigation Measures

3.3.4.1 Methodology

The California Environmental Quality Act (CEQA) and its Guidelines requires that project-level assessments include a discussion of potential energy impacts with emphasis on potential inefficient, wasteful, or unnecessary consumption of energy. Construction and operational energy usage calculations (mobile source fuel consumption) are described in Appendix B1, Subsection 6. Energy Consumption Calculations.

As described in Section 2 (Project Description), key energy-consuming elements from the construction of the Proposed Project would consist of:

- Harbor craft used for in-water construction activities and maintenance dredging to clean-up the slope after construction activities;
- Off-road construction equipment such as cranes, loaders, excavators, scrapers, generators, and welders;
- On-road heavy-duty delivery and haul vehicles; and
- Light-duty worker vehicles.

When analyzing operational efficiency, the most common metric is gallons of fuel used per unit of cargo throughput (in this case, per barrel of petroleum commodity). But because the facility's energy use is almost entirely in the form of liquid fuels consumption, a more useful metric is British Thermal Unit (BTU) per barrel of product throughput. Project operational energy consumption would primarily result from:

- Tanker vessel hotelling, arrivals and departures, including associated assist tugboat activity;
- Diesel heavy-duty trucks delivering lube oil to offsite locations; and
- Gasoline light-duty worker vehicles.

The energy consumption from construction and operational activities of the Proposed Project and alternatives is compared to equivalent state-level and regional energy consumption statistics to understand the relative contributions of the Proposed Project (or alternatives) to regional consumption and to evaluate the significance of those contributions.

CEQA Baseline

For purposes of this Draft Environmental Impact Report (Draft EIR), the CEQA baseline consists of site conditions as of calendar year 2021. The baseline conditions for the Proposed Project and alternatives are described in Sections 2.6 (CEQA Baseline) and 2.7 (Project Alternatives), and consisted of the operation of the MOT at Berths 148-149.

Thresholds of Significance

CEQA Guidelines Appendix G suggests two criteria for determining the significance of impacts related to energy:

- *VI(a). Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*
- *VI(b). Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Accordingly, the Proposed Project or alternative would have a significant adverse impact if it would:

EN-1: Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

EN-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.3.4.2 Impact Determination

Impact EN-1: Would the Proposed Project result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction

As described in Section 2.5.1, construction of the Proposed Project would include construction of a new, MOTEMS-compliant berthing and loading/unloading facilities at Berths 150-151 with associated landside improvements.

Energy (primarily as diesel fuel but including minor amounts of gasoline and electricity) would be used during construction of the Proposed Project. Table 3.3-2 shows the total energy consumption in terms of fuel usage during the entire assumed 6-year construction period (2024-2029). (As described in Section 2.5.1, the assumed dates are for analytical purposes only and mean that the analysis is conservative, as a later start date would result in cleaner construction and operational equipment being used.)Fuel consumption during construction would be temporary and would represent a tiny fraction (0.029%) of the approximately 3.1 billion gallons of diesel fuel and an even smaller fraction (0.00065%) of the 13.8 billion gallons of gasoline consumed in California each year (CEC 2022b, c).

This construction effort is necessary to achieve the Proposed Project objectives described in Section 2.3.2 and thus does not represent a wasteful or unnecessary use of energy.

Construction would be consistent with the policies in the Port of Los Angeles' Sustainable Construction Guidelines (MM AQ-3 [Port of Los Angeles Sustainable Construction Guidelines], see Section 3.1), which require more stringent engine emission standards for construction equipment than the average fleet and best practices such as limiting idling time for offroad equipment and construction vehicles, which would translate into improved energy usage. Construction activities would also be subject to MM AQ-1 (On-Road Trucks) and MM AQ-2 (Non-Road Construction Equipment), which would reduce energy use by reducing fuel consumption.

Table 3.3-2. Proposed Project Construction Fuel Usage

Category	Year	Primary Fuel	Project Fuel Consumed (gallons)	Project Energy Consumed (Thousand BTU)
Offroad Construction Equipment	2025	Diesel	113,263	15,613,203
Onroad Trucks		Diesel	16,741	2,307,761
Worker Vehicles		Gasoline	15,061	1,878,356
Harbor Craft (tugboat)		Diesel	13,900	1,916,157
Annual Total	**2025**	**Diesel**	**143,905**	**19,837,121**
Annual Total	**2025**	**Gasoline**	**15,061**	**1,878,356**
Project Construction Total	**2024-2029**	**Diesel**	**863,430**	**119,022,725**
Project Construction Total	**2024-2029**	**Gasoline**	**90,366**	**11,270,136**

Note: Total for all construction years (2024-2029) based on maximum annual (2025) consumption. Details of construction sources and energy calculations are available in Section 6 of Appendix B1. The assumed dates are for analytical purposes only and mean that the analysis is conservative, as a later start date would result in cleaner construction and operational equipment being used.

The Proposed Project would also use electrical energy during construction (for activities such as welding or temporary lighting), much of which would be supplied by on-site portable generators. Fuel used to power the on-site portable generators is accounted for under Offroad Construction Equipment in Table 3.3-2. Any additional energy consumption via electricity from the regional power grid would be insubstantial relative to diesel and gasoline fuel use.

Operation

Under the Proposed Project, operations at the new, MOTEMS compliant Berths 150-151 would begin in 2027. Nearly all energy consumption would be in the form of diesel fuel combustion by tanker vessels, harbor craft, and tanker trucks. Energy consumption would be substantially reduced by compliance with mitigation measure MM AQ-6 (Vessel Speed Reduction Program, see Section 3.1) because slower vessel speeds translate to greater fuel efficiency. Gasoline consumption would occur in employee commute vehicles.

The MOTEMS Project will utilize electricity for shoreside EIVs (Emergency Isolation Valves), hose manifold EIVs, product transfer pumps, docking winches, MOVs (Motor Operated Valves), tower crane, gang way, lighting, and fire water system. These electrical loads constitute 6,685 kWh/month or a 13 percent annual increase (80,223 kWh/yearly) above the existing electricity consumption for the MOT. The total electrical consumption estimate for the terminal, existing facilities and MOTEMS, is 677,023 kWh per year.

Under maximum Proposed Project operating conditions, annual throughput would be 23,761,500 barrels (bbl) with 371 vessel calls and 1,951 truck visits which represents a

274 percent increase in throughput, a 27 percent increase in vessel calls, and a 22 percent increase in truck visits relative to the 2021 baseline. Table 3.3-3 shows the baseline and maximum Proposed Project annual fuel consumption during operations along with gallons of diesel used per thousand bbl of throughput (gasoline consumption is minimal). Energy efficiency of the Proposed Project operations in terms of the amount of diesel used per thousand bbl of throughput is greater than under the baseline scenario primarily due to the increase in average amount of product moved per vessel call.

The Proposed Project would be required to comply with the Sustainable City pLAn, and the CAAP in addition to requirements of the various federal and state energy conservation laws, regulations, and policies described in Section 3.3.3. Compliance with these requirements will help to insure that the Proposed Project does not result in wasteful, inefficient, or unnecessary energy consumption. Furthermore, because energy represents a substantial portion of operational costs, Phillips 66 and tanker vessel and tanker truck operators would strive to maximize energy efficiency by sizing operational equipment appropriately and minimizing on-site idling of trucks and equipment.

Table 3.3-3. Proposed Project Operational Fuel Usage

	Throughput (bbl/yr)	Category[a]	Fuel Consumption (gal/yr)[b]	Fuel Consumption (gal/1000bbl throughput)
2021 Baseline	6,359,423	Tanker Vessels (marine diesel)	345,844	
		Harbor Craft (marine diesel)	23,688	
		Tanker Trucks (on-road diesel)	12,466	
		Total Diesel	**381,997**	**60.07**
		Worker Vehicles (gasoline)	1,006	
Maximum Project Operations	23,761,500	Tanker Vessels (marine diesel)	1,155,836	
		Harbor Craft (marine diesel)	36,103	
		Tanker Trucks (on-road diesel)	13,692	
		Total Diesel	**1,205,631**	**50.74**
		Worker Vehicles (gasoline)	898	
Net (Project minus Baseline)	17,402,077	**Diesel**	**823,634**	**(9.33)[c]**
		Worker Vehicles (gasoline)	(108)	

Notes
[a] Details of operational sources and energy calculations are available in Section 6 of Appendix B1.
[b] Energy consumption from tanker ships and ocean-going barges is based on travel up to California over-water boundary; energy consumption for other vessels and on-road vehicles is based on vehicle trip data as described in Appendix B1; these trips do not include travel outside of California.
[c] Value shown is gal/1000bbl for Project minus Baseline; value based on net fuel consumption and net throughput is 46.4 gal/1000bbl which represents the marginal energy efficiency associated with the Project additional throughput.

Operation of the Proposed Project would not consume more fuel than necessary to achieve the overall objectives of the Proposed Project and would use fuel more efficiently as demonstrated in Table 3.3-3. Therefore, the Proposed Project would not introduce wasteful, inefficient, or unnecessary consumption of energy resources. The LADWP is charged with maintaining sufficient capability to provide customers with a reliable source of power and will continue to do so with proper planning and development of facilities in accordance with the City Charter, using mechanisms such as the LADWP Power

Strategic Long Term Resource Plan (LADWP 2022b) which ensures that electricity resources and reserves will be adequate to provide electricity to all LADWP customers, including the Proposed Project. Proposed Project operations will consume 677,023 kWh per year which represents a 13 percent increase 80,223 kWh) above the CEQA baseline level.

Accordingly, because the Proposed Project would not use non-renewable resources in a wasteful or inefficient manner, impacts would be less than significant and no mitigation is required. In addition, the incremental quantities of diesel that would be consumed by the Proposed Project operations as shown in Table 3.3-3 would represent insubstantial fractions of the California fuel supplies described in Section 3.3.2 (0.021 percent) and would therefore not adversely affect those supplies. Similarly, the 80,223-kWh increase above baseline in annual electrical energy consumption under the Proposed Project is an insubstantial fraction of the 21,000 gigawatt-hours (GWh) of electricity consumed by LADWP customers in 2021 and would not adversely affect power supplies.

Impact Determination

Construction would include use of energy efficient vehicles and equipment as well as renewable diesel fuel as required under federal and state regulations described in Section 3.3.3. Energy use during construction would comply with federal, state, and local energy efficiency requirements and would represent a very small fraction of the state's overall fuel supplies and usage. No energy consumption beyond that necessary to complete construction of the Proposed Project would occur as construction equipment and methods would be typical for projects of this nature and would not be unusually energy intensive. Operational energy use by the Proposed Project is projected to become more efficient over time in response to increasing energy costs and compliance with federal, state, and local energy conservation programs. A minor amount of additional consumption of electricity (13 percent above baseline levels) is anticipated to be necessary to meet MOTEMS requirements as described above. Accordingly, energy use by the Proposed Project would not be wasteful, inefficient or more than necessary to accomplish the Project goals. As a result, impacts related to energy use and conservation associated with construction and operation of the Proposed Project would be less than significant.

Mitigation Measures

While no mitigation is required to reduce the energy impact, the Proposed Project would, as described above, be constructed and operated subject to air quality mitigation measures (MM AQ-1 through MM AQ-3 and MM AQ-6) that would reduce energy use by reducing the fuel use of construction equipment and vehicles and oceangoing vessels.

Residual Impacts

Impacts would be less than significant.

Impact EN-2: Would the Proposed Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Construction

The LAHD's Development Bureau is responsible for review of design, inspection, management, and oversight of construction projects to ensure compliance with applicable energy efficiency standards. As noted above, construction would comply with LAHD's Sustainable Construction Guidelines and would include use of energy efficient vehicles

and equipment as well as renewable diesel fuel as required under the federal and state regulations described in Section 3.3.3 which include engine fuel efficiency standards and increased use of renewable sources of diesel fuel and electricity.

Operations

Operation of the Proposed Project would be required to comply with the Sustainable City pLAn and the CAAP. These include energy conservation initiatives, energy-efficient vessel operations via the MM AQ-6 (Vessel Speed Reduction Program), leadership in carbon reduction efforts, and changes in mobility policies, particularly zero-emissions goods movement goals. Progress towards the zero-emissions goods movement goals will replace non-renewable oil and natural gas energy sources with electricity sourced from the California power grid, thereby greatly reducing the use of non-renewable energy sources for Project operations. The new, MOTEMS-compliant terminal that would be constructed and operated under the Proposed Project would be capable of handling increasing quantities of renewable liquid fuels such as renewable diesel in line with growing market demand, consistent with California's renewable energy goals.

As demonstrated above, the amount of energy that would be consumed through construction and operation of the Proposed Project is negligible in comparison to available supplies, thus ensuring that the Proposed Project would not adversely impact the availability of renewable energy to meet state or local renewable energy goals or the achievement of energy efficiency goals.

Impact Determination

Construction would include use of energy efficient vehicles and equipment as well as renewable diesel fuel as required under federal and state regulations described in Section 3.3.3. Operational energy use by the Proposed Project is projected to become more efficient over time due to changes in MOT operations as demonstrated in Table 3.3-3 and in response to increasing energy costs and compliance with federal, state, and local energy conservation programs. Energy use during construction and operation would represent a very small fraction of the state's fuel and electrical energy supplies and usage. Accordingly, the Proposed Project would not conflict with or obstruct state or local plans for use of renewable energy or energy efficiency, and impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Summary of Alternatives

Alternative 1 – No Project

Under the No Project Alternative (Alternative 1), none of the proposed construction activities would occur, either in water or in backland areas. The existing Berths 148-151 MOT backlands area would cease operations. Accordingly, there would be no impacts related to energy use and conservation associated with construction and operation of the Proposed Project and there would be no conflict with, or obstruction of, a state or local plan for renewable energy or energy efficiency.

The No Project Alternative (Alternative 1) would not preclude future improvements at the site, but any such improvements would need to be analyzed in a separate environmental document as a new project.

Alternative 2 – Reduced Project Alternative

Under the Reduced Project Alternative (Alternative 2), all the physical features of the Proposed Project would be constructed except the refurbishment of 11 idle storage tanks. Operational activities would be the same as those of the Proposed Project (see Section 1.7.1.2); only the construction would differ from the Proposed Project.

The impacts of construction of the Reduced Project Alternative (Alternative 2) would be somewhat less than those of the Proposed Project since energy used to refurbish the 11 idle storage tanks would not be spent. However, energy impacts associated with in-water components and all other construction would be the same and these activities account for the vast majority of construction energy use. Accordingly, impacts related to energy use and conservation associated with construction and operation of the Proposed Project would be less than significant. As all of the features of the Proposed Project except for refurbishment of the 11 idle storage tanks would be the same under this Alternative, the degree of conflict with or obstruction of a state or local plan for renewable energy or energy efficiency would be the same as described above for the Proposed Project and the impact would be less than significant.

3.3.4.3 Summary of Impact Determinations

Table 3.3-4 summarizes the impact determinations of the Proposed Project and each alternative related to Energy, as described in the detailed discussion above. This table is meant to allow easy comparison between the potential impacts of the Proposed Project and alternatives with respect to this resource.

For each impact threshold, the table describes the impact, notes the impact determinations, describes any applicable mitigation measures, and notes the residual impacts (i.e., the impact remaining after mitigation). All impacts, whether significant or not, are included in this table.

Table 3.3-4. Summary Matrix of Potential Impacts and Mitigation Measures for Energy Conservation Associated with the Proposed Project

Alternative	Environmental Impacts	Impact Determination	Applied Mitigation Measures	Residual Impacts After Mitigation	Lease Measure
Proposed Project	**EN-1:** Would the Proposed Project result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than significant	No mitigation is required	Less than significant	N/A
	EN-2: Would the Proposed Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than significant	No mitigation is required	Less than significant	N/A
Alternative 1: No Project	**EN-1:** Would the No Project Alternative result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	No impact	No mitigation is required	No impact	N/A
	EN-2: Would the No Project Alternative conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No impact	No mitigation is required	No Impact	N/A
Alternative 2: Reduced Project	**EN-1:** Would the Reduced Project Alternative result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than significant	No mitigation is required	Less than significant	N/A
	EN-2: Would the Reduced Project Alternative conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than significant	No mitigation is required	Less than significant	N/A

Mitigation Monitoring

Neither the Proposed Project nor any of the alternatives would result in significant impacts related to energy conservation. Therefore, no mitigation measures are required.

3.3.5 Significant Unavoidable Impacts

No significant unavoidable impacts related to energy conservation would occur during construction or operation of the Proposed Project or alternatives.

References

CARB (California Air Resources Board). 2021. 2020 Mobile Source Strategy. October. 2020 Mobile Source Strategy.

_____. 2025. California Air Resources Board Withdraws Request for EPA Waiver for Advanced Clean Fleets Regulation. January 13, 2025. https://www.epa.gov/system/files/documents/2025-01/ca-acf-carb-withdrawal-ltr-2025-1-13.pdf.

CEC (California Energy Commission). 2018. Revised Transportation Energy Demand Forecast, 2018-2030. Publication Number: CEC-200-2018-003. CEC 2018 Revised Transportation Energy Demand Forecast.

_____. 2020. Final 2019 Integrated Energy Policy Report. CEC-100-2019-001-CMF. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2019-integrated-energy-policy-report.

_____. 2021. 2021 Total System Electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation.

_____. 2022a. Energy Reports: Electricity Consumption by Entity. http://www.ecdms.energy.ca.gov/elecbyutil.aspx.

_____. 2022b. What Drives California's Gasoline Prices? CEC 2022 WHat Drives California's Gasoline Prices.

_____. 2022c. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting.

_____. 2022d. Final 2022 Integrated Energy Policy Report. CEC-100-2022-001-CMF.

City of Los Angeles. 2019. LA's Green New Deal Sustainable City pLAn. https://plan.lamayor.org/.

Los Angeles Department of Water and Power (LADWP). 2022a. Power Facts and Figures. LADWP 2022 Power Facts & Figures.

_____. 2022b. 2022 Power Strategic Long-Term Resource Plan. LADWP 2022 Power Strategic Long-Term Resource Plan.

LAHD (Los Angeles Harbor Department). 2009. Sustainable Construction Guidelines for Reducing Air Emissions. LAHD 2009 Sustainable Construction Guidelines for Reducing Air Emissions.

POLB and POLA (Port of Long beach and Port of Los Angeles). 2017. San Pedro Bay Ports Clean Air Action Plan 2017 Final. November. https://kentico.portoflosangeles.org/getmedia/a2820d01-54f6-4f38-a3c5-81c228288b87/2017-final-caap-update.

U.S. Congress. 2025. H.J.Res.88 - Providing congressional disapproval under chapter 8 of title 5, United States Code, of the rule submitted by the Environmental Protection Agency relating to "California State Motor Vehicle and Engine Pollution Control Standards; Advanced Clean Cars II; Waiver of Preemption; Notice of Decision." 119th Congress (2025-2026). Available at: Congress.gov H.J.Res.88. https://www.congress.gov/bill/119th-congress/house-joint-resolution/88