

4.5 Energy

This section evaluates the potential for impacts on energy resulting from implementation of the Perris Airport Logistics Center Project (Proposed Project). Energy use was calculated based on California Emissions Estimator Model (CalEEMod) modeling prepared by Harris & Associates (Appendix B of this EIR) and U.S. Environmental Protection Agency (EPA) Emission Factors for Greenhouse Gases. Calculations were prepared by Harris & Associates and are included in Appendix B of this EIR.

4.5.1 Environmental Setting

4.5.1.1 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to address energy.

Federal

Corporate Average Fuel Economy Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and EPA jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for (1) technological feasibility, (2) economic practicality, (3) effect of other standards on fuel economy, and (4) need for the nation to conserve energy.

Issued by the NHTSA and EPA in March 2020 (published on April 30, 2020, and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and carbon dioxide (CO₂) standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO₂ standards for model year 2020 are 43.7 miles per gallon (mpg) and 204 grams of CO₂ per mile for passenger cars and 31.3 mpg and 284 grams of CO₂ per mile for light trucks, projecting an overall industry average of 37 mpg, compared to 46.7 mpg under the standards issued in 2012. This Rule also excludes CO₂-equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020 (NHTSA and EPA 2018).

On May 12, 2021, the NHTSA published a notice of proposed rulemaking in the Federal Register, proposing to repeal “The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program,” published Sept. 27, 2019 (SAFE I Rule), in which the NHTSA codified regulatory text and made additional pronouncements regarding the preemption of state and local laws related to fuel economy standards. Specifically, this document proposed to fully repeal the regulatory text and appendices promulgated in the SAFE I Rule. In addition, this document

proposed to repeal and withdraw the interpretative statements made by the NHTSA in the SAFE I Rule preamble, including those regarding the preemption of particular state greenhouse gas (GHG) emissions standards or Zero Emissions Vehicle mandates. As such, this document proposed to establish a clean slate with respect to the NHTSA's regulations and interpretations concerning preemption under the Energy Policy and Conservation Act. This action is effective as of January 28, 2022.

Energy Independence and Security Act (Public Law 110-140)

The Energy Independence and Security Act of 2007 seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels, improving vehicle fuel economy, and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased CAFE standards, the Renewable Fuel Standard, appliance energy efficiency standards, building energy efficiency standards, and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (EPA 2021).

Energy Policy and Conservation Act (Public Law 94-163)

In 1975, the U.S. Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the NHTSA is responsible for establishing additional vehicle standards. In 2010, fuel economy standards were set at 27.5 miles per gallon for new passenger cars and 23.5 miles per gallon for new light-duty trucks. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) were not subject to fuel economy standards in 2010. Passenger cars and light trucks used directly or indirectly associated with a project would be required to comply with the applicable fuel economy standards. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. The ISTEA contained factors that Metropolitan Planning Organizations were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, Metropolitan Planning Organizations adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

Transportation Equity Act of the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under the ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State***Assembly Bill 1007: State Alternative Fuels Plan***

Assembly Bill (AB) 1007 requires the California Energy Commission to prepare a plan to increase the use of alternative fuels in California. The State Alternative Fuels Plan was prepared by the California Energy Commission with the California Air Resources Board (CARB) and in consultation with other federal, state, and local agencies to reduce petroleum consumption, increase use of alternative fuels (e.g., ethanol, natural gas, liquefied petroleum gas, electricity, and hydrogen), reduce GHG emissions, and increase in-state production of biofuels. The State Alternative Fuels Plan recommends a strategy that combines private capital investment, financial incentives, and advanced technology that will increase the use of alternative fuels, result in significant improvements in the energy efficiency of vehicles, and reduce trips and vehicle miles traveled through changes in travel habits and land management policies. The Alternative Fuels and Vehicle Technologies Funding Program legislation (AB 118, Statutes of 2007) proactively implements this plan.

Advanced Clean Trucks

The Advanced Clean Trucks regulation is a manufacturers zero-emission vehicle sales requirement and a one-time reporting requirement for large entities and fleets. The regulation requires large carriers to begin transitioning drayage trucks to zero-emission vehicles in 2024, with full implementation by 2035. The Advanced Clean Trucks regulation will also end diesel truck sales by 2036 to encourage adoption of zero-emission medium and heavy-duty vehicles. The goal of this proposed strategy is to achieve nitrogen oxides (Nox) and GHG emission reductions through clean technology and facilitate adoption of zero-emission heavy-duty technology.

California Building Standards Code (Title 24, Part 6)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor

environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2022 Title 24 standards, which became effective on January 1, 2023, and build upon the 2019 Standards (CEC 2022a). The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into on-site generation by requiring solar photovoltaic (PV) on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to on-site energy storage that will help Californians save on utility bills while bolstering the grid. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.
- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available on site and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize on-site use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal.

CALGreen (Title 24, Part 11)

The California Green Building Standards Code (CCR, Title 24, Part 11), commonly referred to as the CALGreen Code, is a Statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. The CALGreen Code requires new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. The CALGreen Code also provides voluntary tiers and

measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent CALGreen Code was adopted in 2022 and went into effect January 1, 2023. The CalGreen Standards that are applicable to the Proposed Project include, but are not limited to, the following:

Chapter 5 Nonresidential Mandatory Measures

5.106.5.3 Electric Vehicle (EV) Charging

Construction to provide electric vehicle infrastructure and facilitate electric vehicle charging shall comply with Section 5.106.5.3.1 and shall be provided in accordance with regulations in the California Building Code and the California Electrical Code.

5.106.5.3.1 EV Capable Spaces

EV capable spaces shall be provided in accordance with Table 5.106.5.3.1 and the following requirements:

1. Raceways complying with the California Electrical Code and no less than 1-inch (25 mm) diameter shall be provided and shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the EV capable space and into a suitable listed cabinet, box, enclosure or equivalent. A common raceway may be used to serve multiple EV capable spaces.
2. A service panel or subpanel(s) shall be provided with panel space and electrical load capacity for a dedicated 208/240 volt, 40-ampere minimum branch circuit for each EV capable space, with delivery of 30-ampere minimum to an installed EVSE at each EVCS.
3. The electrical system and any on-site distribution transformers shall have sufficient capacity to supply full rated amperage at each EV capable space.
4. The service panel or subpanel circuit directory shall identify the reserved overcurrent protective device space(s) as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE."

Note: A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by an enforcement agency. See Vehicle Code Section 22511.2 for further details.

5.106.5.3.2 Electric Vehicle Charging Stations (EVCS)

EV capable spaces shall be provided with EVSE to create EVCS in the number indicated in Table 5.106.5.3.1. The EVCS required by Table 5.106.5.3.1 may be provided with EVSE in any

combination of Level 2 and Direct Current Fast Charging (DCFC), except that at least one Level 2 EVSE shall be provided.

One EV charger with multiple connectors capable of charging multiple EVs simultaneously shall be permitted if the electrical load capacity required by Section 5.106.5.3.1 for each EV capable space is accumulatively supplied to the EV charger.

The installation of each DCFC EVSE shall be permitted to reduce the minimum number of required EV capable spaces without EVSE by five and reduce proportionally the required electrical load capacity to the service panel or subpanel.

5.106.5.3.3 Use of Automatic Load Management Systems (ALMS)

ALMS shall be permitted for EVCS. When ALMS is installed, the required electrical load capacity specified in Section 5.106.5.3.1 for each EVCS may be reduced when serviced by an EVSE controlled by an ALMS. Each EVSE controlled by an ALMS shall deliver a minimum 30 amperes to an EV when charging one vehicle and shall deliver a minimum 3.3 kW while simultaneously charging multiple EVs.

5.106.5.3.4 Accessible EVCS

When EVSE is installed, accessible EVCS shall be provided in accordance with the California Building Code, Chapter 11B, Section 11B-228.3.

5.106.5.4 Electric Vehicle (EV) Charging: Medium-Duty and Heavy-Duty

Construction shall comply with Section 5.106.5.4.1 to facilitate future installation of electric vehicle supply equipment (EVSE). Construction for warehouses, grocery stores and retail stores with planned off-street loading spaces shall also comply with Section 5.106.5.4.1 for future installation of medium- and heavyduty EVSE.

5.106.5.4.1 Electric Vehicle Charging Readiness Requirements for Warehouses, Grocery Stores and Retail Stores with Planned Off-Street Loading Spaces

In order to avoid future demolition when adding EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s) or subpanel(s) shall be installed at the time of construction in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:

The transformer, main service equipment and subpanels shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE.

The construction documents shall indicate one or more location(s) convenient to the planned offstreet loading space(s) reserved for medium- and heavy-duty ZEV charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s), as shown in Table 5.106.5.4.1.

Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles.

The raceway(s) or busway(s) shall be of sufficient size to carry the minimum additional system load to the future location of the charging for medium- and heavy-duty ZEVs as shown in Table 5.106.5.4.1.

5.410.2 Commissioning

New buildings 10,000 square feet and over. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated by the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements.

5.410.2.2 Basis of Design (BOD)

A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

- Renewable energy systems.
- Landscape irrigation systems.
- Water reuse systems.

Integrated Energy Policy Program

Senate Bill (SB) 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The CEC prepares these assessments and associated policy recommendations every 2 years, with updates in alternate years, as part of the Integrated Energy Policy Report (IEPR).

The 2022 IEPR was adopted on February 28, 2023. The 2022 IEPR provides updates on a variety of energy issues facing California. These issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. The 2022 IEPR also discusses the CEC's equity and environmental justice efforts, its development of a more easily navigable online data platform via the California Energy Planning Library, and an update to the California Energy Demand Forecast. The report also provides information on emerging topics related to energy reliability, western electricity integration, hydrogen, gasoline prices, gas transition, and distributed energy resources (CEC 2023).

The 2023 IEPR was completed in January 2024. The 2023 IEPR discusses speeding connection of clean resources to the electricity grid, the potential use of clean and renewable hydrogen, and the California Energy Demand Forecast to 2040. The report also provides updates on topics such as gas decarbonization, energy efficiency, the Clean Transportation Program, AB 1257 (Bocanegra, Chapter 749, Statutes of 2013), and publicly owned utilities' progress toward peak demand reserves and margins (CEC 2024a).

Senate Bill 100

On September 10, 2018, Governor Jerry Brown signed SB 100, which replaces the SB 350 requirement of 45 percent renewable energy by 2027 with the requirement of 50 percent by 2026 and raises California's Renewables Portfolio Standard (RPS) requirements for 2050 from 50 to 60 percent. SB 100 also establishes RPS requirements for publicly owned utilities that consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Furthermore, the bill also establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end users and 100 percent of electricity procured to serve state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Senate Bill 350

SB 350 was signed into law in September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

The California RPS program was established in 2002 under SB 1078 (Sher) and SB 107 (Simitian). The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the state’s Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). The California Public Utilities Commission (CPUC) is required to provide quarterly reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the state. Based on the 2019 RPS Annual Report, all electricity retail sellers had an annual target to serve at least 29 percent of their electric load with RPS eligible resources by December 31, 2018. In general, retail sellers either met or exceeded the 29 percent interim RPS target, and many are on track to achieve their 2017–2020 compliance period requirements (CPUC 2021).

Assembly Bill 1493/Pavley Regulations

California Assembly Bill 1493 enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. In 2005, CARB submitted a “waiver” request to the EPA from a portion of the federal Clean Air Act to allow the state to set more stringent tailpipe emission standards for CO₂ and other GHG emissions from passenger vehicles and light-duty trucks. On December 19, 2007, the EPA announced that it denied the “waiver” request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the state’s request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several

strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

Local

City of Perris Climate Action Plan

The City of Perris Climate Action Plan (CAP) was completed in February 2016. The Perris CAP was developed to address global climate change through the reduction of harmful GHG emissions at the community level and as part of California’s mandated statewide GHG reduction goal (AB 32). Through the Perris CAP, the City has developed multiple sustainable strategies to directly benefit the community by decreasing carbon emissions while adapting to a changing climate. Several of these strategies are aimed at reducing energy consumption as a means of reducing carbon emissions. The programs and actions provided in the Perris CAP were developed to help the City grow healthily, resourcefully, and sustainably.

City of Perris General Plan

Multiple chapters in the City’s General Plan include various goals, policies, and measures designed to reduce energy consumption in the City. The Perris General Plan goals, policies, and measures for reducing energy consumption are presented below.

Conservation Element

- **Goal VIII – Sustainable Future:** Create a vision for energy and resource conservation and the use of green building design for the City, to protect the environment, improve quality of life, and promote sustainable practices.
 - **Policy VIII.B:** Adopt and maintain development regulations that encourage recycling and reduced waste generation by construction projects.
 - **Measure VIII.B.1:** Initiate and maintain incentive programs to encourage and reward developments that employ energy and resource conservation and green building practices similar to the City’s current recycling program.
 - **Policy VIII.C:** Adopt and maintain development regulations which encourage increased energy efficiency in buildings, and the design of durable buildings that are efficient and economical to own and operate. Encourage green building development by establishing density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who meet Leadership in Energy and Environmental Design (LEED) building standards for new and refurbished developments (U.S. Green Building Council’s Leadership in Energy and Environmental Design green building programs).
 - **Measure VIII.C.1:** Create a green building ordinance that promotes the use of green building technology and design.

- **Measure VIII.C.2:** The City shall obtain and maintain a LEED accredited employee on staff that is intended to review and make recommendations on all new and remodel projects processing through the City.
- **Measure VIII.C.3:** Encourage the design and construction of durable buildings that are efficient and economical to own and operate.
- **Measure VIII.C.5:** Encourage green building density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who meet LEED building standards for new developments.
- **Goal X:** Encourage improved energy performance standards above and beyond the California Title 24 requirements.
 - **Policy X.A:** Establish density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who exceed current Title 24 requirements for new development.
 - **Measure X.A.1:** The City shall consider adopting energy performance standards above and beyond Title 24 requirements by updating its Development Code and Building Code and all other applicable ordinances to reflect and encourage the guidelines contained within this section.
 - **Measure X.A.2:** Encourage energy conservation devices including but not limited to lighting, water heater treatments, solar energy systems, etc. for all residential projects (City of Perris 2005).

Healthy Community Element

- **Goal HC-6 – Healthy Environment:** Support efforts of local businesses and regional agencies to improve the health of our region’s environment.
 - **Policy HC 6.1:** Support regional efforts to improve air quality through energy efficient technology, use of alternative fuels, and land use and transportation planning (City of Perris 2015).

4.5.1.2 Existing Conditions

Existing California Energy Usage

The most recent data for California’s estimated total electricity and natural gas consumption is from 2022. According to the U.S. Energy Information Administration and the CEC, California’s estimated annual energy use as of 2022 included:

- Approximately 287,220 gigawatt hours of electricity; and
- Approximately 2,056,267 million cubic feet of natural gas per year

These energy sources, and statewide fuel use, are addressed in greater detail below.

Electricity

California's in-state electricity generation system generates approximately 203,257 gigawatt hours each year. In 2022, California produced approximately 71 percent of the electricity it uses; the rest was imported from the Pacific Northwest (approximately 12 percent) and the U.S. Southwest (approximately 17 percent). Natural gas is the main source for in-state electricity generation at approximately 47.46 percent of the total in-state electric generation system power as shown in Table 4.5-1, Total Electricity System Power (California 2022).

Table 4.5-1. Total Electricity System Power (California 2022)

Fuel Type	Percent of California In-State Generation (%)	California In-State Generation	Northwest Imports	Southwest Imports	Total Imports	Total California Energy Mix	Total California Power Mix (%)
Coal	0.13	273	181	5,716	5,897	6,170	2.15
Natural Gas	47.46	96,457	44	7,994	8,083	104,495	36.38
Oil	0.03	65	-	-	-	65	0.02
Other (Waste Heat/Petroleum Coke)	0.15	315	-	-	-	315	0.11
Unspecified Sources of Power	0.00	-	12,845	7,943	20,428	20,428	7.11
Total Thermal and Unspecified	47.78	97,110	12,710	21,653	34,363	121,473	45.77
Nuclear	8.67	17,627	397	8,342	8,739	26,366	9.18
Large Hydro	7.19	14,607	10,803	1,118	11,921	26,528	9.24
Biomass	2.64	5,366	771	25	797	6,162	2.15
Geothermal	5.47	11,110	253	2,048	2,301	13,412	4.67
Small Hydro	1.48	3,005	211	13	225	3,230	1.12
Solar	19.92	40,494	231	8,225	8,456	48,950	17.04
Wind	6.86	13,938	8,804	8,357	17,161	31,099	10.83
Total Non-GHG and Renewables	52.22	106,147	21,471	28,129	49,599	155,747	54.23
Total Energy	100	203,257	34,180	49,782	83,962	287,220	100

Source: CEC 2022b.

A summary of and context for energy consumption and energy demands within the state is presented in “U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts” excerpted below:

- In 2022, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2022, the state ranked third in crude oil refining capacity.

- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states.
- In 2020, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all but three other states.
- In 2022, renewable resources, including hydroelectric power and small-scale, customer-sited solar power, accounted for 49% of California's in-state electricity generation. Natural gas fueled another 42%. Nuclear power supplied almost all the rest.
- In 2022, California was the fourth-largest electricity producer in the nation. The state was also the nation's third-largest electricity consumer, and additional needed electricity supplies came from out-of-state generators.

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient.

Natural Gas

The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the CPUC.

The CPUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing. This includes natural gas utility service for approximately 11 million customers that receive natural gas from Pacific Gas & Electric (PG&E), SoCalGas, San Diego Gas & Electric, Southwest Gas, and several smaller investor-owned natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, for example, California utility customers received 38 percent of their natural gas supply from basins located in the U.S. Southwest, 27 percent from Canada, 27 percent from the U.S. Rocky Mountain area, and 8 percent from production located in California (CPUC 2024).

Transportation Energy Resources

The most recent data available shows the transportation sector emits 39 percent of the total greenhouse gases in the state (CARB 2023). Gasoline is the most used transportation fuel, with approximately 13.6 billion gallons being sold in 2022 (CEC 2024b). Diesel fuel is the second-largest transportation fuel used in the state and represents 17 percent of total fuel sales. In 2022, approximately 3.6 billion gallons of diesel was sold (CEC 2024c).

Project Site Energy Usage

Electricity, natural gas, and fuel consumption at the Project Site are summarized below.

Electricity

The Project Site is currently undeveloped and does not consume electricity. The area surrounding the Project Site is currently served by Southern California Edison (SCE). SCE provides electric power to more than 15 million people, within a service area encompassing approximately 50,000 square miles (SCE 2024). In 2022, electricity consumption for the County was approximately 17,780,573,271 kWh (CEC 2022c). SCE derives electricity from varied energy resources including fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.

Table 4.5-2, SCE 2022 Power Content Mix, identifies SCE’s specific proportional shares of electricity sources in 2022. As shown in Table 4.5-2, the 2022 SCE Power Mix has renewable energy at 33.2 percent of the overall energy resources. The largest share of renewable energy comes from solar energy, at 17 percent.

Table 4.5-2. SCE 2022 Power Content Mix

Energy Resources	2022 SCE Power Mix (%)
Eligible Renewables	33.2
Biomass and Biowaste	0.1
Geothermal	5.7
Eligible Hydroelectric	0.5
Solar	17.0
Wind	9.8
Coal	0.0
Large Hydroelectric	3.4
Natural Gas	24.7
Nuclear	8.3
Other	0.1
Unspecified Sources of Power*	30.3
Total	100

Source: SCE 2022.

Notes:

* = Unspecified sources of power means electricity from transactions that are not traceable to specific generation sources

Natural Gas

The Project Site is currently undeveloped and does not consume natural gas. The area surrounding the Project Site is currently served by SoCalGas. In 2022, the County consumed approximately 147 million therms (approximately 14,706,329,820 kBTU) of gas (CEC 2022d).

Transportation Energy Resources

With the exception of occasional site weed control, the Project Site does not generate vehicle trips to or from the area. The CARB Emissions Factor 2021 (EMFAC2021) model estimates that fuel use in Riverside County was 720,687,590 gallons of gasoline and 25,6824,618 gallons of diesel fuel in 2023 (CARB 2024).

4.5.2 Thresholds of Significance

According to Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines), the Proposed Project would have a significant impact on energy if it would:

- **Threshold ENE-1:** Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- **Threshold ENE-2:** Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.5.3 Regulatory Implementation

RI ENE-1 The Project will comply with the California Building Standards Code (Title 24), which requires that building construction, system design and installation, and appliances achieve energy efficiency and preserve outdoor and indoor environmental quality.

RI ENE-2 The Project is required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CALGreen). This will require the project to reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

4.5.4 Environmental Impacts

The following sections address potential impacts relating to energy that could result from implementation of the Proposed Project.

Methodology

Information from the California Emissions Estimator Model (CalEEMod) (Version 2022.1.1.222) Output contained in Appendix B of this EIR, used in Sections 4.2 and 4.7, were also used for this analysis. The CalEEMod outputs detail Proposed Project-related construction equipment, transportation energy demands, and facility energy demands. Fuel consumption from construction and operation of the Proposed Project was calculated using the CalEEMod annual carbon dioxide

equivalent (CO_{2e}) emissions output prepared for the Proposed Project and the kilograms per carbon dioxide (kg/CO₂) conversion factors from the EPA (2024) for diesel fuel and motor gasoline. Based on truck and non-truck trip distributions calculated in the Proposed Project traffic analysis (Appendix B), it was assumed that approximately 27 percent of the operational fuel use would be from diesel trucks. Energy and natural gas usage estimated for the Proposed Project was obtained from the CalEEMod output. Calculation worksheets used in the following analysis can be found in Appendix B of this EIR.

4.5.4.1 Threshold ENE-1: Wasteful or Inefficient Energy Usage

Impact Analysis

Construction

Construction of the Proposed Project would require a temporary increase in energy demand. Construction energy impacts involve the one-time, non-recoverable energy costs associated with construction of structures, parking lots, and a roadway. During construction, the Proposed Project would result in an increase in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment and the use of electricity for lighting and other sources. Construction of the Proposed Project would require site preparation, grading, utility installation, building construction, paving, and architectural coatings. Proposed Project construction would be typical for the region and building type. The Proposed Project does not include circumstances that would require unusually high energy use for construction, such as helicopter delivery or other specialized equipment.

Total diesel fuel use and motor gasoline consumption from operation of construction equipment, haul truck trips, vendor truck trips, and worker vehicle trips is summarized in Table 4.5-3, Construction Diesel Fuel and Gasoline Use. When not in use, equipment would be powered off to avoid unnecessary energy consumption. Electricity and natural gas are not anticipated to be used during construction.

Table 4.5-3. Construction Diesel Fuel and Gasoline Use

Fuel Type	Amount
Diesel Fuel	197,722 gallons
Motor Gasoline	87,149 gallons

Sources: CAPCOA 2022; EPA 2024 (conversion factors).

Notes: Includes fuel use from construction equipment, haul truck trips, vendor truck trips, and worker vehicle trips. Assumes a conversion factor of 10.21 kg/CO₂ for diesel fuel and 8.78 kg/CO₂ for motor gasoline. Detailed calculations are provided in Attachment 1 of Appendix B.

Operation

Table 4.5-4, Proposed Project-Related Baseline Year Energy Use, includes energy use estimates for electricity, natural gas, and vehicle fuel (fossils fuels) from implementation of the Proposed Project. Table 4.5-5, Proposed Project-Related Year 2045 Energy Use, includes projected energy estimates for electricity, natural gas, and fossil fuels for 2045, which shows that the Proposed Project's demand

for fossil fuels would reduce over time. These reductions in fossil fuel energy estimates are primarily due to state plans and policies that aim to reduce dependence on fossil fuels and achieve carbon neutrality as reflected in the CalEEMod default assumptions (Appendix B of this EIR).

Operation of the Proposed Project would consume electrical energy for several purposes, including but not limited to commercial lighting for the proposed warehouses and offices, and equipment operation. Operation of the Proposed Project would consume natural gas for several purposes, including but not limited to building heating. Vehicle trips to and from the Proposed Project area would result in fuel consumption.

Table 4.5-4. Proposed Project-Related Baseline Year Energy Use

Energy Type	Annual Usage
Electricity	5,528,100 kWh
Natural Gas	16,557,017 kBtu
Diesel Truck Fuel Use	203,915 gallons
Motor Gasoline Use	641,120 gallons
Emergency Fire Pump Testing (two pumps, 30 minutes per week)	702 gallons

Source: CAPCOA 2022.

Notes: kWh/yr = kilowatt-hour per year; kBtu/yr = kilo British thermal unit per year; Assumes a conversion factor of 8.78 kg/CO₂ for motor gasoline and 10.21 kg/CO₂ for diesel. Detailed calculations are provided in Appendix B.

Table 4.5-5. Proposed Project-Related Year 2045 Energy Use

Energy Type	Annual Usage
Electricity	5,528,100 kWh
Natural Gas	16,557,017 kBtu
Diesel Truck Fuel Use	128,442 gallons
Motor Gasoline Use	403,828 gallons

Source: CAPCOA 2022.

Notes: kWh/yr = kilowatt-hour per year; kBtu/yr = kilo British thermal unit per year; Assumes a conversion factor of 8.78 kg/CO₂ for motor gasoline and 10.21 kg/CO₂ for diesel. Detailed calculations are provided in Appendix B.

Conclusion

As demonstrated above, the Proposed Project would result in an increase in electricity, natural gas, and fossil fuel use during construction and operation. However, energy use from implementation of the Proposed Project would not result in a wasteful, inefficient, or unnecessary consumption of energy. The Proposed Project would comply with applicable federal, state, and local regulations during construction and operation. It would not include any components unusual for a warehouse facility that would result in wasteful, inefficient, or unnecessary consumption of resources. The Project Site is located in a developed area currently served by major truck routes and would not result in wasteful fuel use. As described in the vehicle miles traveled analysis (Section 4.13, Transportation), Site 2 would be a locally serving use that could reduce fuel use by improving destination proximity. Additionally, implementation of mitigation measure MM GHG-1

(discussed further in Section 4.7) would require construction of solar panels on site to offset estimated Proposed Project electricity consumption, which would additionally reduce electricity consumption during operation. Potential impacts would be less than significant.

Significance of Impact

Less Than Significant Impact.

4.5.4.2 Threshold ENE-2: Conflict with Renewable or Energy Efficiency Plan

Impact Analysis

Plans and policies applicable to the Proposed Project include federal and state transportation regulations, the State Energy Plan, Title 24, Pavley regulations, and the Perris CAP. The Proposed Project's consistency with these plans and policies is evaluated below.

Regarding federal transportation regulations, the Project Site is in an already developed area. Access to and from the Project Site is from existing roads. These roads are already in place so the Proposed Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be proposed pursuant to the ISTEA because the Southern California Association of Governments is not planning for intermodal facilities in the Proposed Project's vicinity. The Advanced Clean Trucks regulation requires statewide manufacturers zero-emission vehicle sales requirement, and a one-time reporting requirement for large entities and fleets. While the Proposed Project is not directly subject to compliance, trucks arriving at and departing from the Project Site would be required to comply.

Regarding the State Energy Plan and compliance with Title 24 CCR energy efficiency standards, the Project Proponent/Developer is required to comply with the California Green Building Standard Code requirements for energy-efficient buildings and appliances as well as utility energy efficiency programs implemented by SCE and SoCalGas. The Proposed Project would be required to meet or exceed the energy standards established in the CALGreen Code, Title 24, Part 11. CALGreen standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

Regarding Pavley (AB 1493) regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources. However, the vehicles associated with the Proposed Project would be required to comply with federal and state fuel efficiency standards.

The Proposed Project would be consistent with the applicable strategies of the City of Perris CAP and would implement electric vehicle stalls as required. The Proposed Project would exceed

current on-site renewable energy requirements through implementation of mitigation measure MM GHG-1, which would also include installation of solar panels to generate at least 25 percent of Proposed Project electricity demand. Additionally, development of the Project would not preclude or hinder the incorporation of additional solar panels or other renewable energy sources, if required in the future. Consistency with the Perris CAP is discussed further in Section 4.7 of this EIR. Section 4.7 concluded that the Proposed Project would not conflict with the Perris CAP following implementation of mitigation measure MM GHG-1 and the transportation demand management measures in mitigation measure MM TRAN-1, which would reduce potential impacts to less than significant levels.

As stated above in Section 4.5.4.1, Threshold ENE-1: Wasteful or Inefficient Energy Usage, energy use on the Project Site during construction would be temporary and energy use associated with operation of the Proposed Project would be insignificant in comparison to the state and County's available energy sources (discussed in Section 4.5.1.2, Existing Conditions). Southern California Edison, the energy provider for the Project Site, currently provides 52 percent of power from carbon-free sources and has a goal of 100 percent carbon-free power by 2045 (Edison International 2024). The Proposed Project is estimated to increase County natural gas use by 0.1 percent and electricity use by 0.03 percent compared to existing demand and is consistent with planned growth for the Project Site. As such, the Proposed Project would not interfere with the ability of Southern California Edison to achieve its carbon-free energy goals. The Proposed Project would be consistent with applicable renewable and energy efficiency plans during construction and operation. Therefore, potential impacts would be less than significant.

Significance of Impact

The Proposed Project would not conflict with renewable or energy efficiency plans and is consistent with the State Energy Plan, Title 24, Pavley regulations, and the Perris CAP. Potential impacts would be less than significant.

4.5.5 Cumulative Impacts

The following sections address various potential cumulative impacts relating to energy that could result from implementation of the Proposed Project.

4.5.5.1 Cumulative Threshold ENE-1: Wasteful or Inefficient Energy Usage

Proposed Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the energy demands of the Proposed Project can be accommodated within the context of available resources and energy delivery systems. The Proposed Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservation goals within the state. Other cumulative projects within a 1-mile radius of the Project Site are listed in Table 4-1, Cumulative Projects, in Chapter 4, Environmental Analysis.

The types of projects listed include housing, commercial/retail, and hotel, industrial, and warehouse projects. These projects are at various stages of development and would similarly be required to demonstrate that the wasteful, inefficient, or unnecessary consumption of energy would not occur. Additionally, other cumulative developments would be subject to the same regulatory requirements as the Proposed Project, including compliance with the Title 24 Building and Energy Efficiency Standards, Airborne Toxics Control Measure, and California Code of Regulations Title 13, Motor Vehicles 2449(d)(3) Idling, which would ensure that cumulative development does not result in the wasteful, inefficient, or unnecessary consumption of energy. As such, due to existing regulatory processes, the Proposed Project and cumulative projects would not result in cumulatively considerable environmental impact due to wasteful, inefficient, or unnecessary consumption of energy. Thus, potential impacts would be less-than-cumulatively considerable.

4.5.5.2 Cumulative Threshold ENE-2: Conflict with Renewable or Energy Efficiency Plan

The Proposed Project would not conflict with any adopted state or local plans for renewable energy or energy efficiency. The Proposed Project and other cumulative developments also inherently would be required to be consistent with the IEPR, State of California Energy Plan, Title 24 Energy Efficiency Standards, AB 1493 (Pavley), and SB 350, as discussed herein. Because California's energy conservation planning actions are conducted at a regional level, and because it can be assumed that other cumulative projects would implement features to reduce inefficient or unnecessary energy use, the Proposed Project and cumulative projects would not conflict with California's energy conservation plans. As such, potential impacts due to a conflict with or obstruction of a state or local plan for renewable energy or energy efficiency would be less-than-cumulatively considerable.

4.5.6 Level of Significance Before Mitigation

4.5.6.1 Threshold ENE-1: Wasteful or Inefficient Energy Usage

Less than Significant: The Proposed Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

4.5.6.2 Threshold ENE-2: Conflict with Renewable or Energy Efficiency Plan

Less than Significant: The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.5.7 Mitigation Measures

No mitigation measures are required because there were no significant impacts identified under the applicable thresholds.

4.5.8 Level of Significance After Mitigation

Because no mitigation measures are required, potential impacts are the same as described in Section 4.5.6.

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