IV. Environmental Impact Analysis

D. Energy

1. Introduction

This section evaluates the potential for energy-related impacts associated with the Project and ways in which the Project would reduce unnecessary energy consumption, consistent with the suggestions in Appendix F of the CEQA Guidelines. Energy service providers to the site include Los Angeles Department of Water and Power (LADWP) for electrical service and Southern California Gas Company (SoCalGas) for natural gas. Modeling of electricity and natural gas usage of the Project is included in Appendix C of this Draft EIR.

Section 21100(b)(3) of CEQA requires that an EIR include a detailed statement with mitigation measures proposed to minimize significant effects on the environment, including but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the State CEQA Guidelines states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the project description, environmental setting, and impact analysis portions of technical sections, as well as through mitigation measures and alternatives.

In accordance with Appendices F and G of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the Project. This section summarizes the Project's anticipated energy needs, impacts, and conservation measures. The information in this section and other aspects of the Project's energy implications are also discussed in Chapter II, *Project Description*, and Chapter IV.B, *Air Quality*, IV.F, *Greenhouse Gas Emissions*, and IV.J, *Transportation.*

2. Environmental Setting

a. Regulatory Framework

(1) Federal

a. Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (EISA) (Public Law 110-140) 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 EISA sets increased Corporate Average Fuel Economy (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.[1]

b. Update to Corporate Average Fuel Economy Standards (2021 to 2026)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon (mpg) for model year 2025. However, on March 30, 2020, the USEPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021-2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 mpg for model year 2026 vehicles.[2]

c. Phase I and 2 Heavy-Duty Vehicle GHG Standards

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and the National Highway Traffic Safety Administration (NHTSA). The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.[3] The USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[4]

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1 *United States Environmental Protection Agency. 2019, May 6 (updated). Summary of the Energy Independence and Security Act Public Law 110-140 (2007).*

2 *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks: Final Rule, Vol. 85 Federal Register, No. 84 (April 30, 2020).*

3 *United States Environmental Protection Agency. 2011, August. Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles.*

4 *United States Environmental Protection Agency. Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles – Phase 2, Vol. 81 Federal Register, No. 206 (October 25, 2016).*

(2) State

a. California Buildings Standards Code (Title 24)

(i) California Building Energy Efficiency Standards (Title 24, Part 6)

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission [CEC]) in June 1977. and most recently revised in 2019 (California Code of Regulations Title 24, Part 6). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards, which the CEC adopted on May 9, 2018, went into effect on January 1, 2020.

The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements.[5] Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards, and single-family homes will be 7 percent more energy efficient.[6] When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards.[7]

(ii) California Green Building Standards (Title 24, Part 11)

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (California Code of Regulations Title 24, Part 11, known as the CALGreen Code) was adopted as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California. The CALGreen Code is intended to (1) reduce

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[5] *California Energy Commission. Accessed on September 28, 2020. News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first.*

[6] *California Energy Commission. Accessed on September 28, 2020. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf.*

[7] *California Energy Commission. Accessed on September 28, 2020. 2019 Building Energy and Efficiency Standards Frequently Asked Questions. https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf.*

GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The mandatory provisions of the CALGreen Code became effective January 1, 2011 and was last updated in 2019. The 2019 CALGreen Code became effective January 1, 2020.

Overall, the CALGreen Code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. The CALGreen Code contains requirements for construction site selection; stormwater control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The CALGreen Code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.[8]

b. California's Renewable Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under SB 1078 and was amended in 2006, 2011 and 2018. 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. The California Public Utilities Commission is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the State. Based on the 3rd quarter 2014 report, the three largest retail energy utilities provided an average of 20.9 percent of its supplies from renewable energy sources. Since 2003, 8,248 megawatts (MW) of renewable energy projects have started operations.[9]

c. Senate Bill 350

Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—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.

d. Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirements. Under SB 100, the RPS for public owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill also establishes an overall State policy that eligible renewable energy resources and zero-carbon

[8] *California Building Standards Commission. 2019 California Code of Regulations Title 24, Part 11.*
[9] *California Public Utilities Commission. 2016. Renewables Portfolio Standard Quarterly Report: 4th Quarter 2016.*

resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all 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.

e. Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and culminating in a 10-percent total reduction in 2020.[10] Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.[11]

f. California Air Resources Board

(i) CARB'S Advanced Clean Car Program

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions-control program was approved by CARB in 2012.[12] The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.[13] The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[14]

(ii) Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be

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[10] *California Air Resources Board. Accessed on September 28, 2020. LCFS Basics. https://ww2.arb.ca.gov/resources/documents/lcfs-basics.*

[11] *California Air Resources Board. Accessed on September 28, 2020. LCFS Basics. https://ww2.arb.ca.gov/resources/documents/lcfs-basics.*

[12] *California Air Resources Board. Accessed on January 6, 2020. California's Advanced Clean Cars Program, www.arb.ca.gov/msprog/acc/acc.htm.*

[13] *California Air Resources Board. Accessed on January 6, 2020. California's Advanced Clean Cars Program, www.arb.ca.gov/msprog/acc/acc.htm.*

[14] *California Air Resources Board. Accessed on January 6, 2020. California's Advanced Clean Cars Program. www.arb.ca.gov/msprog/acc/acc.htm.*

licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

(iii) Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles

The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, California Code of Regulations, Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of diesel particulate matter, oxides of nitrogen (NO_x) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The newer emission- controlled models would use petroleum-based fuel in a more efficient manner.

g. Sustainable Communities Strategy

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

h. Senate Bill 1389

Senate Bill 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the development of an integrated plan for electricity, natural gas, and transportation fuels. The CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. The most recently completed report, the 2019 Integrated Energy Policy Report, addresses a variety of issues including electricity sector trends, building decarbonization and energy efficiency, zero-emission vehicles, energy equity, climate change adaptation, electricity reliability in California, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts.[15]

[15] *California Energy Commission. 2020, February. Final 2019 Integrated Energy Policy Report.*

(3) Regional

SB 375 requires each MPO to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted on September 3, 2020, is the current RTP/SCS and is an update to the 2016-2040 RTP/SCS.

The 2020-2045 RTP/SCS focuses on the continued efforts of the previous RTP/SCS plans for an integrated approach in transportation and land uses strategies in development of the SCAG region through horizon year 2045. The 2020-2045 RTP/SCS projects that the SCAG region will meet the GHG per capita reduction targets established for the SCAG region of 8 percent by 2020 and 19 percent by 2035. Additionally, its implementation is projected to reduce VMT per capita for year 2045 by 4.1 percent compared to baseline condition for the year. Rooted in the 2008 and 2012 RTP/SCs plans, the 2020-2045 RTP/SCS includes "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together, and increasing investments in transit and complete streets.[16]

(4) Local

a. City of Los Angeles Green New Deal (Sustainable City pLAn 2019)

In April 2019, Mayor Eric Garcetti released the Green New Deal (Sustainable City pLAn 2019), a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives. The Green New Deal includes the following targets directly and indirectly related to energy on-road vehicle fuel usage, water, and wastewater:

- Supply 55 percent renewable energy by 2025; 80 percent by 2036; and 100 percent by 2045.
- Reduce building energy use per square foot for all types of buildings 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050.
- Increase cumulative MW of local solar to 900-1,500 MW by 2025, 1,500-1,800 MW by 2035, and 1,950 MW by 2050.

[16] *Southern California Association of Governments. 2020, May 7. Connect SoCal: The 2020-2045 Regional Transportation/Sustainable Communities Strategy of the Southern California Association of Governments.*

- Increase cumulative MW of energy storage capacity to 1,654-1,750 MW by 2025, 3,000 MW by 2035, and 4,000 MW by 2050.
- Reduce VMT per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050.
- Reduce potable water use per capita by 22.5 percent by 2025, 25 percent by 2035, and maintain or reduce 2035 per capita water use through 2050.
- Recycle 100 percent of all wastewater for beneficial reuse by 2035.

b. City of Los Angeles Green Building Code

On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filed on or after January 1, 2017, must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings.

c. City of Los Angeles Solid Waste Programs and Ordinances

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, in 2015, 3.61 million tons of aluminum were produced by recycling in the United States, saving enough energy to provide electricity to 7.5 million homes.[17] In 1989, California enacted Assembly Bill 939 (AB 939), the California Integrated Waste Management Act, which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.[18] The City of Los Angeles includes programs and ordinances related to solid waste. They include: (1) the City of Los Angeles Solid Waste Management Policy Plan, which was adopted in 1993 and is a long-range policy plan promoting source reduction for recycling for a minimum of 50 percent of the City's waste by 2000 and 70 percent of the waste by 2020; (2) the RENEW LA Plan, which is a Resource Management Blueprint with the aim to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources now going to disposal so as to achieve an overall diversion level of 90 percent or more by 2025; (3) the Waste

[17] *American Geosciences Institute. Accessed on January 6, 2020. How Does Recycling Save Energy? www.americangeosciences.org/critical-issues/faq/how-does-recycling-save-energy.*

[18] *California's Department of Resources Recycling and Recovery. 2018, July 27 (updated). History of California Solid Waste Law, 1985–1989.*

Hauler Permit Program (Ordinance 181,519), which requires all private waste haulers collecting solid waste, including construction and demolition waste, to obtain AB 939 Compliance Permits and to transport construction and demolition waste to City certified construction and demolition processing facilities; and (4) the Exclusive Franchise System Ordinance (Ordinance No. 182,986), which, among other requirements, sets maximum annual disposal levels and specific diversion requirements for franchised waste haulers in the City to promote solid waste diversion from landfills in an effort to meet the City's zero waste goals. These solid waste reduction programs and ordinances help to reduce the number of trips to haul solid waste, therefore reducing the amount of petroleum- based fuel, and also help to reduce the energy used to process solid waste.

b. Existing Conditions

(1) Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in MW, which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.

The Project Site is in LADWP service area, which spans much of the urban areas of Los Angeles County. Total electricity consumption in LADWP's service area was 23,909 GWh in 2018.[19] Sources of electricity sold by LADWP in 2018, the latest year for which data are available, were:

- 33 percent renewable, consisting mostly of solar and wind
- 18 percent coal
- 3 percent large hydroelectric
- 30 percent natural gas

[19] *California Energy Commission. Accessed on December 23, 2019. Electricity Consumption by Planning Area. http://www.ecdms.energy.ca.gov/elecbyplan.aspx.*

- 10 percent nuclear
- 6 percent unspecified sources—that is, not traceable to specific sources[20]

The Project Site is currently vacant and, therefore, does not generate any electricity demands.

(2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and, therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet (cf).

SoCalGas provides gas service in the City of Los Angeles and has facilities throughout the City, including the Project Site. The service area of SoCalGas spans much of the southern half of California, from Imperial County on the southeast to San Luis Obispo County on the northwest to part of Fresno County on the north, to Riverside County and most of San Bernardino County on the east.[21] Total natural gas supplies available to SoCalGas for years 2018 and 2019 are 3,055 million cubic feet per day (MMcf/day) and 3,385 MMcf/day, respectively.[22] Total natural gas consumption in SoCalGas's service area was 719,423 MMcf for 2018, which is equivalent to 1,971 MMcf/day.[23] The Project Site is currently vacant and, therefore, does not generate any existing natural gas demands.

(3) Transportation Energy

According to the CEC, transportation accounts for nearly 37 percent of California's total energy consumption in 2014.[24] In 2018, California consumed 15.5 billion gallons of gasoline and 3.7 billion gallons of diesel fuel.[25,26] Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.[27] However, the State is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and

[20] *Los Angeles Department of Water and Power. 2018 Power Content Label.*
[21] *California Energy Commission. 2015. February 24. California Energy Utility Service Areas..*
[22] *California Gas and Electric Utilities. 2018. California Gas Report.*
[23] *California Energy Commission. Accessed on October 23, 2019. Gas Consumption by Planning Area. http://www.ecdms.energy.ca.gov/gasbyplan.aspx.*
[24] *California Energy Commission. 2017, January. 2016 Appliance Efficiency Regulations..*
[25] *California Energy Commission. 2019, July 1. 2018 California Annual Retail Fuel Outlet Report Results (CEC-A15).*
[26] *Diesel is adjusted to account for retail (48 percent) and non-retail (52 percent) diesel sales.*
[27] *California Energy Commission. 2016, March. 2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program.*

reduce VMT. Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline over the next 10 years, and there will be an increase in the use of alternative fuels.[28] According to CEC fuel sales data, Los Angeles County on-road transportation sources consumed 3.64 billion gallons of gasoline and 0.53 billion gallons of diesel fuel in 2018.[29,30] Because the Project Site is currently vacant, no vehicle trips are associated with the site.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to energy if it would:

Threshold (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?

Threshold (b): Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in Appendix G and Appendix F of the CEQA Guidelines, as appropriate, to assist in answering the Appendix G questions. The factors to evaluate energy impacts under Threshold (a) include:

- The Project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the Project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
- The effects of the Project on local and regional energy supplies and on requirements for additional capacity;
- The effects of the Project on peak and base period demands for electricity and other forms of energy;
- The effects of the Project on energy resources; and
- The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

[28] *California Energy Commission. 2020, February 20. 2019 Integrated Energy Policy Report.*
[29] *California Energy Commission. 2019, July 1. 2018 California Annual Retail Fuel Outlet Report Results (CEC-A15).*
[30] *Diesel is adjusted to account for retail (48 percent) and non-retail (52 percent) diesel sales.*

In accordance with Appendix G and Appendix F of the CEQA Guidelines, the degree to which the Project complies with existing energy standards is considered, as appropriate, to evaluate impacts under Threshold (b).

With regard to potential impacts to energy, the L.A. CEQA Thresholds Guide states that a determination of significance shall be made on a case-by case basis, considering the following factors:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity-enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; and
- The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.

In accordance with Appendix G and the *L.A. CEQA Thresholds Guide*, the following criteria will be considered in determining whether this threshold of significance is met:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity;
3. The effects of the project on peak and base period demands for electricity and other forms of energy;
4. The degree to which the project complies with existing energy standards;
5. The effects of the project on energy resources;
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives;
7. The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements; and
8. Whether the Project conflicts with adopted energy conservation plans.

With regard to Threshold (b), the Project will be evaluated for consistency with adopted energy conservation plans and policies relevant to the Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CalGreen, and City building codes.

b. Methodology

Based on CEQA Guidelines Appendix F, Energy Conservation, in order to ensure energy implications are considered in project decisions, EIRs must include a discussion of the potential impacts of proposed Projects, with particular emphasis on avoiding or reducing wasteful, unnecessary, or inefficient use of energy resources. Environmental effects may include the Project's energy requirements and its energy use efficiencies by the amount and fuel type during demolition, construction, and operation; the effects of the Project on local and regional energy supplies; the effects of the Project on peak- and base-period demands for electricity and other forms of energy; the degree to which the Project complies with existing energy standards; the effects of the Project on energy resources; and the Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable. The provided energy and fuel usage information presented in this section are based on the following:

- **Building Energy:** Electricity and natural gas usage associated with building energy that would be consumed by the Project from its operations are based on the California Emissions Estimator Model, Version 2016.3.2, (CalEEMod) default electricity and natural gas rates. New buildings are modeled to comply with the 2019 Building Energy Efficiency Standards. Under the 2019 Standards, non-residential buildings are 30 percent more energy efficient compared to the 2016 Building Energy Efficiency Standards. Additionally, the renewable electricity generated from the proposed photovoltaic (PV) system is accounted for in the analysis. The proposed PV system is anticipated to generate 460,000 kWh of electricity per year.

- **On-Road Vehicle Fuel Usage:** Fuel usage associated with operation-related vehicle trips in addition to construction-related vehicle trips (i.e., worker and vendor trips) are based on fuel usage data obtained from EMFAC2017, Version 1.0.2. Operation-related vehicle trip generation data are provided by Linscott, Law and Greenspan, Engineers (LLG) (see Appendix I.1). Construction-related vehicle trips for the Project are based on information provided by the Applicant and on CalEEMod defaults.

- **Off-Road Equipment Fuel Usage:** Fuel usage for construction-related off-road equipment and off-road equipment used for daily operations is based on fuel usage data from OFFROAD2017, Version 1.0.1. Construction-related off-road equipment fuel usage is based on the equipment mix anticipated for the Project (see Table IV.B-9, *Construction Activities, Phasing*, *and Equipment*, of this Draft EIR for details regarding the anticipated construction schedule and equipment). Operation-related off-road equipment fuel usage is based on one diesel-powered yard truck. The electricity usage associated with the anticipated 15 electric-powered forklifts are

assumed to be accounted for in total electricity demand associated with operation of the proposed building.

c. Project Design Features

Project Design Features AQ-PDF-1 through AQ-PDF-6, as set forth in Section IV.B, Air Quality, of this Draft EIR, also apply to energy use.

d. Analysis of Project Impacts

Threshold (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?

(1) Impact Analysis

The following analysis considers the eight criteria identified in the Thresholds of Significance subsection above to determine whether this significance threshold would be exceeded.

a. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.

As discussed above, the Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption, and transportation fuels, such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (construction, operations, maintenance, and removal activities).

(i) Construction

Construction of the Project would create temporary increased demands for electricity and vehicular fuels compared to existing conditions and would result in short-term transportation-related energy use. During Project construction, energy would be consumed in the form of electricity used to powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

Non-Transportation Electricity

Construction of the Project would not require electricity to power most construction equipment. Electricity use during construction would vary during different phases of construction. The majority of construction equipment during demolition and grading would be gas- or diesel-powered, and the later construction phases would require electricity-powered equipment for interior construction and architectural coatings. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction. Additionally, it is anticipated that most of the electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities. Furthermore, electrical energy would be available for use during construction from existing power lines and connections, precluding the use of less-efficient generators. **Therefore, the Project would not result in wasteful, inefficient, or unnecessary use of electricity during construction.**

Non-Transportation Natural Gas

It is not anticipated that construction equipment used for the Project would be powered by natural gas, and no natural gas demand is anticipated during construction. **Therefore, the Project would not result in wasteful, inefficient, or unnecessary use of natural gas during construction.**

On-Road Vehicles and Off-Road Equipment Energy

Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. It is anticipated that the majority of off-road construction equipment, such as those used during demolition and grading, would be gas- or diesel-powered. Total fuel usage for off-road construction equipment depends on the type of equipment, the number of each type of equipment, and duration each piece of equipment operations. Fuel usage from on-road vehicles depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode.

Energy consumption during construction (2020 through 2022) was calculated using the CalEEMod, Version 2016.3.2 computer model and data from the EMFAC2017 Version 1.0.2 and OFFROAD2017 Version 1.0.1 databases. The results are shown in Table IV.D-1, *Construction-Related Fuel Usage*. As shown in the table, approximately 1,669 kWh of electricity, 20,350 gallons of gasoline, and 51,590 gallons of diesel are estimated to be consumed during Project construction from on- and off-road vehicles.

Table IV.D-1
Construction-Related Fuel Usage

Project Component	Gas		Diesel		Electricity	
	VMT	Gallon	VMT	Gallon	VMT	kWh
Construction Worker Commute	342,303	12,170	2,453	56	5,071	1,669
Construction Vendor Trips	8,254	1,642	92,171	11,612	0	0
Construction Truck Haul Trips	2	1	2,362	368	0	0
Construction Off-Road Equipment	N/A	6,537	N/A	39,554	N/A	0
Total	**350,559**	**20,350**	**96,986**	**51,590**	**5,071**	**1,669**

Source: CalEEMod Version 2016.3.2; EMFAC2017 Version 1.0.2; OFFROAD2017 Version 1.0.1. See Appendix C (Energy).
Notes: VMT=vehicle miles traveled; kWh=kilowatt hour

All construction-equipment would cease upon completion of Project construction. Furthermore, to limit wasteful and unnecessary energy consumption, the construction contractors are required to minimize non-essential idling of construction equipment during construction, in accordance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9. Construction trips would not result in unnecessary use of energy since the Project Site is centrally located and is served by numerous regional freeway systems (e.g., I-110, I-405, and SR-91) that provide the most direct routes from various areas of the region. **Overall, fuel demands associated with Project-related construction on-road vehicles and off-road equipment would be similar to other development projects. Therefore, project-related construction activities would not result in wasteful or unnecessary energy demands.**

(ii) Operation

Operation of the Project would create additional demands for electricity and natural gas compared to existing conditions and would result in increased transportation energy use. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; use of on-site equipment and appliances; and indoor, outdoor, perimeter, and parking lot lighting.

Electricity

Operation of the facility would consume electricity for various purposes, including heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; security and control center functions; lighting; and use of on-site equipment and appliances. The proposed electricity consumption for the operation of the warehouse is shown in Table IV.D-2, *Project Electricity Consumption*. As shown in the table, the estimated net electricity use by the Project would be 2,405,007 kWh/year.

Table IV.D-2
Project Electricity Consumption

Land Use	kWh per Year Project[1]
General Light Industry[2]	2,838,090
Other Asphalt Surfaces	0
Other Non-Asphalt Surfaces	0
Parking Lot	26,917
Total	**2,864,007**
Renewable Electricity[3]	460,000
Net Project Electricity Consumption	**2,405,007**

Source: CalEEMod 2016.3.2. See Appendix C (AQGHG).
[1]New buildings are modeled based on the 2019 Building and Energy Efficiency Standards.
[2]This provides a conservative analysis because the CalEEMod rate for "General Light Industry" is higher than the proposed high-cube, manufacturing use.
[3]Electricity generated by the proposed PV system.

Electrical service to the Project would be provided by LADWP through connections to existing off-site electrical lines and new on-site infrastructure. The Project would also include a rooftop solar installation or other renewable energy power source that is anticipated to generate 460,000 kWh/year of energy on-site. Furthermore, the Project would be consistent with the requirements of the current Building Energy Efficiency Standards and the CALGreen Code. **Overall, with compliance with these two regulations and inclusion of the proposed rooftop PV system the Project would not result in wasteful or unnecessary electricity demands.**

Natural Gas

The proposed natural gas consumption for the Project Site is shown in Table IV.D-3, *Project Natural Gas Consumption*. As shown in the table, the estimated natural gas demand by the Project would be 7,112,230 kilo-British thermal units (kBTU) per year. **Because the Project would be built to meet the Building Energy Efficiency Standards, the Project would not result in wasteful or unnecessary natural gas demands.**

Table IV.D-3
Project Natural Gas Consumption

Land Use	Kilo-British Thermal Units per Year Project[1]
General Light Industry	7,112,230
Other Asphalt Surfaces	0
Other Non-Asphalt Surfaces	0
Parking Lot	0
Total	**7,112,230**

Source: CalEEMod 2016.3.2. See Appendix C (AQGHG).
[1]New buildings are modeled based on the 2019 Building and Energy Efficiency Standards.

Transportation Energy

The Project would consume transportation energy during operations from associated on-road vehicles and use of off-road equipment.[31] It is anticipated that one diesel-powered yard truck would be utilized for the Project for approximately four hours a day. The efficiency of on-road vehicles in use, such as the average miles per gallon for motor vehicles involved with the Project, is unknown. Therefore, estimates of transportation energy use associated with on-road vehicles is assessed based on the overall VMT and related transportation energy use. The Project-related VMT would primarily come from future employees of the warehouse and from transport trucks. As seen in Table IV.D-4, *Project Annual Operation-Related Fuel Usage*, the annual VMT for the Project is estimated to be 15,816,147 miles. However, since the Project would involve the development of a warehouse, its implementation would provide more opportunities for employment for residents of the City with nearby amenities and public transit options. In addition, in compliance with the CALGreen Code, the Project would include bicycle racks and storage for employee use, which would encourage employees to bicycle to work. Thus, these features of the Project would contribute toward minimizing VMT and transportation-related fuel. **Therefore, the Project would not result in inefficient, wasteful, or unnecessary operation-related fuel usage.**

[31] *It is anticipated that one diesel-powered yard truck would be utilized for the Project for approximately four hours a day. The four hour daily on-site operation of the yard trucks is based on the Southern California International Gateway Recirculated Draft EIR. Table C1.2-BL-17 Activity Data for Existing Business CHE –2010 Baseline indicates that the average annual hours of operation for all diesel Container Handling Equipment, Forklifts, and Yard Tractors totaled 72,187 annual operating hours. The total number of pieces of equipment equals 52. As such, 72,187/52 = 1,388 annual hours per piece of equipment. 1,388 annual hours per piece of equipment/365 days = an average of 3.80 hours per day per piece of equipment. As a conservative measure this is rounded up to four hours for analytical purposes.*

Table IV.D-4
Project Annual Operation-Related Fuel Usage

Project Component	Gas		Diesel		CNG		Electricity	
	VMT	Gallon	VMT	Gallon	VMT	Gallon	VMT	kWh
Trucks	1,108,606	179,599	9,954,357	1,240,305	91,991	41,146	0	0
Passenger Vehicles	4,511,759	171,133	77,982	2,740	0	0	71,452	23,495
Off-Road Equipment	N/A	N/A	N/A	5,892	N/A	N/A	N/A	N/A
Total	5,620,365	350,732	10,032,339	1,248,937	91,991	41,146	71,452	23,495

Source: EMFAC2017 Version 1.0.2; OFFROAD2017 Version 1.0.1. Annual VMT Project operations is based on adjusted fleet mix. See Appendix C (Energy)

b. The effects of the project on local and regional energy supplies and on requirements for additional capacity

(i) Construction

Electricity would be intermittently consumed to provide electricity for temporary lighting and other general construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 0.0007 percent of the estimated net annual operational demand, which, as discussed below, would be within the supply and infrastructure service capabilities of the LADWP. Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities.

Transportation fuel use during Project construction would represent the bulk of the energy used during construction. It is estimated that 20,350 gallons of gasoline and 51,590 gallons of diesel fuel would be consumed during Project construction. This would represent approximately 0.001 percent of gasoline usage and 0.01 percent of diesel fuel usage within Los Angeles County, respectively. **Therefore, because energy consumption during Project construction activities would be relatively negligible, the Project is not likely to affect local or regional energy supply during the construction period.**

(ii) Operation

Electricity

Based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its total retail sales in the 2021–2022 fiscal year will be 22,613 GWh of electricity. The Project-related increase in annual electricity consumption of 2.4 GWh per year would represent approximately 0.01 percent of LADWP's projected sales in 2021–2022 and would be within the LADWP projected supplies for this period. **Therefore, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand. Accordingly, the Project would not adversely affect local or regional energy supply during operations.**

Natural Gas

The Project's estimated increase in demand for natural gas is approximately 7,112,230 kBTU of natural gas (6,972,774 cf of natural gas), or approximately 19,486 kBTU per day (19,103 cubic feet per day). Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,519 million cf per day in 2022.[32] The Project would account for approximately 0.0008 percent of the 2022 forecasted consumption in SoCalGas' planning area. **Therefore, it is anticipated that SoCalGas' existing and planned natural gas capacity and supplies would be sufficient to support the Project's natural gas demand. Accordingly, the Project would not adversely affect local or regional energy supply during operations.**

Transportation Energy

At buildout, Project operation would consume a total of 350,732 gallons of gasoline, a total of 41,146 gallons of compressed natural gas, and a total of 1,248,937 gallons of diesel per year (1,243,045 gallons from on-road vehicles and 5,892 gallons from off-road equipment), or a total of 1,640,816 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.01 percent of the 2018 annual on-road gasoline and approximately 0.24 percent of the annual on-road diesel-related energy consumption in Los Angeles County, as shown in Appendix C (Energy), of this Draft EIR. **Therefore, it is anticipated that existing retail fuel stations in the surrounding area and region would be sufficient to support the Project's transportation fuel usage demand. Accordingly, the Project would not adversely affect local or regional transportation energy supply during operations.**

c. The effects of the project on peak and base period demands for electricity and other forms of energy

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of LADWP's power grid and base load conditions.

[32] *California Gas and Electric Utilities. 2018. 2018 California Gas Report.*

With regard to peak load conditions, the LADWP power system experienced an all-time high peak of 6,502 MW on August 31, 2017.[33] The LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2018-2019, the base case peak demand for the power grid is 5,881 MW per hour.[34] Under peak conditions, the Project operations would consume 2,405,007 kWh on an annual basis, which is equivalent to 275 kW per hour. In comparison to the LADWP power grid base peak load of 5,881 MW per hour in 2018-2019, the Project would represent approximately 0.005 percent of the LADWP base peak load conditions. In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical demand by the Project.[35] **Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid.**

d. The degree to which the project complies with existing energy standards

(i) Construction

Construction of the proposed Project would not require electricity to power most construction equipment. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction. Additionally, it is anticipated that the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities. It is not anticipated that construction equipment used for the proposed Project would be powered by natural gas, and no natural gas demand is anticipated during construction. With regard to transportation fuels, trucks and equipment used during proposed construction activities, the Project would comply with CARB's anti-idling regulations, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy. **Therefore, Project construction activities would comply with existing energy standards.**

[33] *LADWP. 2017, September 15. 2017 Retail Electric Sales and Demand Forecast.*
[34] *LADWP. 2017, September 15. 2017 Retail Electric Sales and Demand Forecast.*
[35] *LADWP. 2017, September 15. 2017 Retail Electric Sales and Demand Forecast.*

(ii) Operation

Electricity and Natural Gas usage during Project operations presented in Tables IV.D-2 and IV.D-3, respectively, would comply with the 2019 Building Energy Efficiency Standards, applicable 2019 CalGreen Code requirements, and Los Angeles Green Building Code. Therefore, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage.

During Project operations, vehicles traveling to and from the Project Site are required to comply with CAFE fuel economy standards. Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards, which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to CAFE standards. Furthermore, as discussed in Section II.7 of this Draft EIR, the Project would include sustainability features, such as 20 passenger vehicle stalls with electric vehicle charging equipment and parking stalls with infrastructure installed capable of supporting future electric vehicle supply equipment for at least 38 stalls. **Therefore, Project operational activities would comply with existing energy standards with regards to transportation fuel consumption.**

e. Effects of the project on energy resources

LADWP's electricity generation is derived from a mix of non-renewable and renewable sources, such as coal, natural gas, solar, geothermal wind, and hydropower. The LADWP's 2017 Strategic Long-Term Resource Plan identifies adequate resources to support future generation capacity. Natural gas supplied to the Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California region are obtained from locations throughout the western United States, as well as Canada.[36] According to the EIA, the United States currently has over 92 years of natural gas reserves based on 2018 consumption.[37] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. **Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.**

Transportation fuels (gasoline and diesel) are produced from crude oil, which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[38] The applicable vehicles associated with the Project would also comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards, which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to CAFE standards. **Therefore, Project**

[36] *California Gas and Electric Utilities. 2018. 2018 California Gas Report.*
[37] *U.S. Energy Information Administration. Accessed September 24, 2020. Frequently Asked Questions. www.eia.gov/tools/faqs/faq.php?id=58&t=8.*
[38] *BP Global. Accessed on January 6, 2020. Statistical Review of World Energy. https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy.html.*

construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in the Regulatory Framework, one of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Furthermore, under SB 100, California cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100-percent carbon-free electricity target, as the bill establishes a State policy to use eligible renewable energy resources and zero-carbon resources to supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Accordingly, LADWP is required to procure at least 50 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, geothermal, biomass/biowaste, and small hydroelectric sources. These sources account for 33 percent of LADWP's overall energy mix in 2018, the most recent year for which data are available.[39] This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

Due to the Project Site's location, other on-site renewable energy sources would not be feasible to be installed on-site as there are no local sources of energy from the following sources: biodiesel, biomass, hydroelectric and small hydroelectric, digester gas, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Furthermore, methane is not available on the Project Site in commercially viable quantities or form, and its extraction and treatment for energy purposes would result in secondary impacts. Additionally, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.[40] However, with regard to on-site renewable energy sources, as mentioned in Chapter II, Project Description, the Project would provide a rooftop solar installation to offset some of the electricity consumption on-site. **Therefore, the Project would support the overall general trend of transitioning to renewable sources of energy.**

f. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives

As the Project Site is currently vacant, implementation of the Project would result in an increase in the number of vehicle trips. The annual VMT for the Project (and associated gasoline and diesel consumption) is estimated to be 15,816,147 miles. However, since the Project would involve the development of a warehouse, its implementation would provide more opportunities for employment for residents of the City with nearby amenities and public transit options. In addition, while not included in the analysis in order to be highly conservative, it is also likely that the Project would improve the jobs-housing balance in the region. By co-locating a jobs source near existing

[39] *Los Angeles Department of Water and Power. 2018 Power Content Label..*
[40] *California Energy Commission. 2020, August 24 (updated). Wind Project Size in California Counties and the United States (2018).*

housing, it is likely that the Project could reduce VMT for workers that would otherwise be traveling greater distances to job sites in the region. Furthermore, as seen in Section IV.J, *Traffic*, of this Draft EIR, the Project would be consistent with SCAG's 2020-2045 RTP/SCS and, therefore, would have a less than significant cumulative impact on VMT and would fall under the City's efficiency-based impact thresholds. In addition, in compliance with the CALGreen Code, the Project would include bicycle racks and storage for employee use. Furthermore, the Project would improve the pedestrian rail crossing to provide a connection to the sidewalk north of the property on Vermont Avenue and meet California Public Utilities Commission (CPUC) requirements. These features of the Project would contribute to minimizing passenger vehicle VMT and transportation-related fuel usage by encouraging and supporting use of alternative modes of transportation. Thus, the Project would encourage efficient transportation energy use and efficient transportation alternatives.

g. The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those to go beyond City requirements.

The current City of LA Green Building Code requires compliance with CALGreen and California's Building Energy Efficiency Standards (Title 24). The City has also adopted several plans and regulations to promote the reduction, reuse, recycling, and conversion of solid waste going to disposal systems. These regulations include the City of Los Angeles Solid Waste Management Policy Plan, the RENEW LA Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. Thus, through compliance with the City's construction- related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

The Project would incorporate sustainability design features beyond the regulatory requirements, such as those included in the Energy Efficiency and Sustainability section in Chapter II, Project Description. For instance, the Project would be built to meet the standards for the LEED Silver Certification under either the (1) LEED v.4 Building Design and Construction Standards for Core and Shell Development set forth by the U.S. Green Building Council or (2) LEED pre-certified Prologis program. Furthermore, the Project would include electric charging stalls for passenger vehicles, stalls that support future electric vehicle chargers for both truck and passenger vehicles, rooftop solar panels or other renewable energy sources to offset some of the electrical consumption.

With implementation of these features along with compliance with State and local energy efficiency standards, the Project demonstrates a high degree of energy-conservation measures that meet and/or exceed all applicable energy conservation policies and regulations.

h. Whether the Project conflicts with adopted energy conservation plans

The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the 2019 CALGreen Code and California's Building Energy Efficiency Standards, which have been incorporated into the City of Los Angeles Green Building Code. In addition, the Project would comply with the Green New Deal Sustainability Plan 2019, which is designed to move the City to a carbon neutral future. As discussed in greater detail in Section IV.F, Greenhouse Gas Emissions, the Project does not conflict with applicable strategies from the plan, nor does it impede the City from achieving any targets identified in the plan. **As such, the Project would be consistent with adopted energy conservation plans.**

i. Conclusion Regarding Threshold (a)

As demonstrated in the analysis of the eight criteria discussed above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or capacity. The Project's energy usage during peak and base periods would also be consistent with electricity and natural gas future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would also be sufficient to meet the needs of Project-related construction and operations. During operations, the Project would comply with existing energy efficiency requirements, such as the CALGreen Code, as well as include energy conservation measures beyond requirements. **In summary, the Project's energy demands would not significantly affect available energy supplies and would comply with existing energy efficiency standards. Therefore, Project impacts related to energy use under Threshold (a) would be less than significant during construction and operation.**

(2) Mitigation Measures

The Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Project impacts with regard to energy use would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

The Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Project impacts with regard to energy were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

Threshold (b): Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As discussed in Chapter VI (Subsection Impacts Found not to be Significant) and in the Initial Study (Appendix A), the California Renewables Portfolio Standard (RPS) was established in 2002 under SB 1078 and was amended in 2006 and 2011. 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. Electricity production from renewable sources is generally considered carbon neutral. Executive Order S-14-08, signed in November 2008, expanded the State's renewable portfolios standard (RPS) to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. Senate Bill 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. On September 10, 2018, Governor Brown signed Senate Bill 100 (SB 100), which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under SB 100, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target. The Project would be serviced by the LADWP. The Project would provide a rooftop solar installation or other renewable energy power system to offset the expected house meter and office electrical consumption of the tenant. **The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and would ensure impacts would be less than significant with respect to Threshold (b). As such, the Project would have a less than significant impact related to plan consistency, and no further analysis is required.**

e. Cumulative Impacts

(1) Impact Analysis

The areas considered for cumulative impacts to electricity and natural gas supplies are the service areas of LADWP and SoCalGas, respectively, described above in Section IV.D.2b. Other projects would generate increased electricity and natural gas demands. However, all projects within the LADWP and SoCalGas service areas would be required to comply with the Building Energy Efficiency Standards and the CALGreen Code, which would contribute in minimizing wasteful energy consumption. **Therefore, Project impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.**

a. Electricity

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. LADWP forecasts that its total retail sales in the 2021–2022 fiscal year will be 22,613 GWh of electricity. Based on the Project's estimated electrical consumption of 2,405,007 kWh/year, the Project would account for approximately 0.01 percent of LADWP's total projected retail sales during 2021–2022. Thus, although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures making the Project more energy-efficient, and would be consistent with growth expectations for LADWP's service area. Furthermore, as with the Project, during construction and operation, other future development projects would be expected to incorporate energy conservation features and comply with applicable regulations, including the CALGreen Code and State energy standards under Title 24. **As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.**

b. Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Based on the 2018 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 2,519 million cf per day in 2022.[41] The Project would account for approximately 0.003 percent of the 2022 forecasted consumption in SoCalGas' planning area. SoCalGas forecasts take into account projected population growth and development based on local and regional plans. Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient, and would be consistent with regional and local growth expectations for SoCalGas' service area. Furthermore, future development projects would be expected to incorporate energy conservation features and comply with applicable regulations, including the CALGreen Code and State energy standards under Title 24. **As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and, thus, would be less than significant.**

c. Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the State and region. As described above, at buildout, the Project would consume a net total of 350,732 gallons of gasoline, 41,146 gallons of compressed natural gas, and 1,248,937 gallons of diesel per year, or a total of 1,640,816 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related

[41] *California Gas and Electric Utilities. 2018. 2018 California Gas Report.*

fuel usage for the Project would represent approximately 0.01 percent of the 2017 annual on-road gasoline and approximately 0.24 percent of the annual on-road diesel-related energy consumption in Los Angeles County, as shown in Appendix C (Energy), of this Draft EIR.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled which would reduce reliance on petroleum fuels. According to the CEC, gasoline consumption has declined by 6 percent since 2008, and the CEC predicts that the demand for gasoline will continue to decline over the next 10 years and that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions. **Therefore, the Project's contribution to cumulative impacts related to wasteful, inefficient, and unnecessary use of transportation fuel would not be cumulatively considerable and, thus, would be less than significant.**

d. Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, and fuel) would not result in a cumulatively considerable effect related to the wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As such, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy impacts are concluded to be less than significant.

(2) Mitigation Measures

Cumulative impacts related to energy would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Cumulative impacts related to energy were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.