IV. Environmental Impact Analysis

C. Energy

1. Introduction

This section analyzes impacts on energy resources due to construction and operation of the Project. Section 15126.2 (b) of the California Environmental Quality Act (CEQA) Guidelines states that a project's energy use shall be analyzed to determine the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy, as well as being compliant with building codes and renewable energy features. Appendix G of the State CEQA Guidelines Checklist, Section VI, Energy, includes questions to assist lead agencies when assessing a project's potential energy impacts. Additionally, State CEQA Guidelines Appendix F provides guidance on information to use when evaluating a project's energy use.

In accordance with the applicable Appendix G sections and utilizing guidance from Appendix F of the State CEQA Guidelines, this Draft EIR includes relevant information and analyses that address the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). Detailed energy calculations can be found in Appendix D of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding energy at the federal, State, regional, and City of Los Angeles levels. As described below, these plans, guidelines, and laws include the following:

- Energy Independence and Security Act of 2007
- Corporate Average Fuel Economy Standards
- Federal Energy Policy and Conservation Act

- California Senate Bill 1389
- Renewables Portfolio Standards
- California Building Standards
  - California Building Energy Efficiency Standards
  - California Green Building Standards
- California Assembly Bill 1493
- California Air Resources Board
  - Scoping Plan
  - Advanced Clean Car Program
  - Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
  - In-Use Off-Road Diesel Fueled Fleets Regulation
- California Senate Bill 375
- Southern California Association of Governments 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy
- Green New Deal
- Green Building Code
- City of Los Angeles Mobility Plan 2035

(1) Federal

(a) Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national greenhouse gas (GHG) emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting mandatory Renewable Fuel Standards (RFS) that require fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy

conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014;
- Requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) actions described below (i) establishing miles per gallon (mpg) targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."[1]

(b) Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 Code of Federal Regulations [CFR] Parts 531 and 533) reduce energy consumption by increasing the fuel economy of cars and light trucks. The NHTSA and the USEPA 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. When these standards are raised, automakers respond by creating a more fuel-efficient fleet. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 mpg. Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and 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

[1] *A "green job," as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.*

the vehicle type.[2] 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.[3]

(c) Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 (EPCA) is a United States Act of Congress that responded to the 1973 oil crisis by creating a comprehensive approach to federal energy policy. The primary goals of EPCA are to increase energy production and supply, reduce energy demand, provide energy efficiency, and give the executive branch additional powers to respond to disruptions in energy supply. Most notably, EPCA established the Strategic Petroleum Reserve, the Energy Conservation Program for Consumer Products, and CAFE regulations.

(2) State

(a) California Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code [PRC] Sections 25300–25323; 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 (PRC Section 25301[a]). The 2017 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California including energy efficiency, strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan, building energy efficiency standards, the impact of drought on California's energy system, achieving 50-percent renewables by 2030, the California Energy Demand Forecast, the Natural Gas Outlook, the Transportation Energy Demand Forecast, Alternative and Renewable Fuel and Vehicle Technology Program benefits updates, an update on electricity infrastructure in Southern California, an update on trends in California's sources of crude oil, an update on California's nuclear plants, and other energy issues.

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

[3] *United States Environmental Protection Agency, Federal Register/Vol. 81, No. 206/Tuesday, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, 2018.*

(b) Renewable Portfolio Standard

First established in 2002 under SB 1078, California's Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030.[4] SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. On September 10, 2018, former Governor Jerry Brown signed SB 100, which further increased California's RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030, and that the California Air Resources Board (CARB) should plan for 100-percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include (1) determining annual procurement targets and enforcing compliance, (2) reviewing and approving each investor-owned utility's renewable energy procurement plan, (3) reviewing contracts for RPS-eligible energy, and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.[5]

(c) California Building Standards

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

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR], 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 2019 Title 24 standards, which became effective on January 1, 2020.[6] The 2019 Title 24 standards continue to improve upon the 2016 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings, which include efficiency improvements to the residential standards for attics, walls, water heating, and lighting, and efficiency improvements to the non-residential standards include alignment

[4] *California Public Utilities Commission, California Renewables Portfolio Standard (RPS), 2018.*

[5] *California Public Utilities RPS Program Overview, 2018.*

[6] *California Energy Commission, 2019 Building Energy Efficiency Standards, 2019.*

with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2017 national standards.[7]

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

The California Green Building Standards Code (CCR, Title 24, Part 11) are commonly referred to as the CALGreen Code. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.[8] The 2019 CALGreen Code improves upon the 2016 CALGreen Code by updating standards for bicycle parking, electric vehicle charging, and water efficiency and conservation. The 2019 CALGreen Code went into effect on January 1, 2020. Refer to Section IV.D, Greenhouse Gas Emissions, of this Draft EIR for additional details regarding these standards.

(d) California Assembly Bill 1493 (AB 1493, Pavley)

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO_2) emissions, Assembly Bill (AB) 1493 (commonly referred to as CARB's Pavley regulations), enacted on July 22, 2002, requires CARB to set GHG emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017–2025.[9,10] Refer to Section IV.D, Greenhouse Gas Emissions, of this Draft EIR for additional details regarding this regulation.

(e) California Air Resources Board

(i) Scoping Plan

AB 32 required CARB to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code [HSC] Section 38561(h)). The 2008 Climate Change Scoping

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[7] *California Energy Commission, 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, 2018.*

[8] *California Building Standards Commission, Guide to the 2016 California Green Building Standards Code Nonresidential, 2018.*

[9] *California Air Resources Board, Clean Car Standards—Pavley, Assembly Bill 1493.*

[10] *United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017–2025 Cars and Light Trucks, 2012.*

Plan proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."[11] The 2008 Climate Change Scoping Plan had a range of GHG reduction actions, which included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade program, and an AB 32 implementation fee to fund the program.

The 2008 Climate Change Scoping Plan called for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required to include more renewable energy sources through implementation of the RPS.[12] Additionally, the 2008 Climate Change Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas will be accomplished through "improving energy efficiency by 25 percent."

The 2008 Climate Change Scoping Plan identified several specific issues relevant to the development projects, including:

- The potential of using the green building framework as a mechanism, which could enable GHG emissions reductions in other sectors (i.e., electricity, natural gas), noting that:

  > *A Green Building strategy will produce greenhouse gas savings through buildings that exceed minimum energy efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health, and minimize impacts to the environment.*

- The importance of supporting the California Department of Water Resources' work to implement the Governor's objective to reduce per capita water use by

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[11] *CARB, Climate Change Scoping Plan, 2008.*

[12] *For a discussion of Renewables Portfolio Standard, refer to subsection California Renewables Portfolio Standard.*

20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The Climate Change Scoping Plan notes that water use requires significant amounts of energy, including approximately one-fifth of Statewide electricity.

- Encouraging local governments to set quantifiable emission reduction targets for their jurisdictions and use their influence and authority to encourage reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions reduction target for 2020. The 2020 emissions reduction target was originally set at 427 million metric tons of CO_2e ($MMTCO_2e$) using the Global Warming Potential (GWP) values from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (SAR). Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the scope of the reductions California must make to return to the 1990 emissions level by 2020 as required by AB 32. CARB originally defined the "business-as-usual" or BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the 2008 Climate Change Scoping Plan, as approximately 596 $MMTCO_2e$ (using GWP values from the IPCC SAR). For example, in further explaining CARB's BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards. Therefore, under these original projections, the State would have had to reduce its 2020 BAU emissions by 28.4 percent to meet the 1990 target of 427 $MMTCO_2e$. This target was met in 2016 and the 2017 Scoping Plan set a new target of 40 percent below BAU emissions levels by 2030.

(ii) Advanced Clean Cars Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations[13]. The program requires a greater number of zero-emission vehicle (ZEV) models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles and the ZEV regulations to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025. In particular,

[13] *California Air Resources Board, Clean Car Standards—Pavley, Assembly Bill 1493, www.arb.ca.gov/msprog/acc/acc.htm, last reviewed January 11, 2017, accessed November 15, 2021.*

implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered.

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

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 CCR Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

(iv) In-Use Off-Road Diesel Fueled Fleets Regulation

Because off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. In 2007, CARB approved the "In-Use Off-Road Diesel Fueled Fleets Regulation" to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation sets an anti-idling limit of 5 minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. Revised in October 2016, the regulation enforced off-road restrictions on fleets adding vehicles with older tier engines beginning July 1, 2014. By each annual compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year or has completed the Best Available Control Technology requirements (BACT). Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028. While the goal of this regulation is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from the use of more fuel-efficient engines.

(f) SB 375 (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 associate 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.

(3) Regional

(a) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

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 VMT 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 use 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 the year 2045 by 4.1 percent compared to baseline conditions for the year. Rooted in the 2008 and 2012 RTP/SCS plans, the 2020–2045 RTP/SCS includes a “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by location housing, jobs, and transit closer together, and increasing investments in transit and complete streets.

(4) Local

(a) Green New Deal

On April 8, 2015, Mayor Eric Garcetti released the Sustainable City pLAn, which includes both short-term and long-term aspirations through the year 2035 in various topic areas, including water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air

quality, among others.[14] Specific targets included the construction of new housing units within 1,500 feet of transit by 2017, reducing VMT per capita by 5 percent by 2025, and increasing trips made by walking, biking or transit by at least 35 percent by 2025. The Sustainable City pLAn was intended to be updated every four years.

In April 2019, Mayor Eric Garcetti released an update to the Sustainable City pLAn renamed as L.A.'s Green New Deal, which consists of a program of actions designed to create sustainability-based performance targets through 2050 to advance economic, environmental, and equity objectives.[15] The Green New Deal augments, expands, and elaborates in more detail the City's vision for a sustainable future, and it tackles the climate emergency with accelerated targets and new aggressive goals.

Within the Green New Deal, climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- 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.
- Reduce building energy use per square feet for all building types 22 percent by 2025, 34 percent by 2035, and 44 percent by 2050 (from a baseline of 68 thousand British thermal Units (mBTU) per square foot in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025 and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025 and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/ matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050.

[14] *City of Los Angeles, Sustainable City pLAn, 2015.*

[15] *City of Los Angeles, LA's Green New Deal, 2019.*

- Increase the percentage of EVs and ZEVs in the city to 25 percent by 2025, 80 percent by 2035, and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025, 95 percent by 2035, and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 pounds of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure the proportion of Angelenos living within 0.5 mile of a park or open space is at least 65 percent by 2025, 75 percent by 2035, and 100 percent by 2050.

(b) Green Building Code

Chapter IX of the Los Angeles Municipal Code (LAMC) is referred to as the "Los Angeles Green Building Code," which incorporates by reference portions of the CALGreen 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. The Los Angeles Green Building Code includes mandatory measures for newly constructed nonresidential and high-rise residential buildings. The Los Angeles Green Building Code includes some requirements that are more stringent than State requirements, such as increased requirements for EV charging spaces and water efficiency, which result in potentially greater energy demand reductions from improved transportation fuel efficiency and water efficiency.

(c) City of Los Angeles Mobility Plan 2035

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the latest amendment on September 7, 2016.[16] The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their

[16] *Los Angeles Department of City Planning, Mobility Plan 2035: An Element of the General Plan, approved by City Planning Commission on June 23, 2016, and adopted by City Council on September 7, 2016.*

streets. The Mobility Plan includes five main goals that define the City's high-level mobility priorities:

(1) Safety First;

(2) World Class Infrastructure;

(3) Access for All Angelenos;

(4) Collaboration, Communication, and Informed Choices; and

(5) Clean Environments and Healthy Communities.

Each of the goals contains objectives and policies to support the achievement of those goals.

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 megawatts (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 Los Angeles Department of Water and Power (LADWP) provides electricity throughout the City of Los Angeles and many areas of the Owens Valley, serving approximately 4 million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electricity provided by LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the

LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP has a net dependable generation capacity greater than 7,531 MW.[17] In 2018, the LADWP power system experienced an instantaneous peak demand of 6,432 MW.[18] Approximately 37 percent of LADWP's 2020 electricity purchases were from renewable sources, which is better than the 33-percent Statewide percentage of electricity purchases from renewable sources.[19] LADWP's annual electricity sale to customers for the 2016–2017 fiscal year, the most current year for which data are available, was approximately 22,878 million kWh.[20]

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. Existing electricity usage was estimated based on the same methodology contained in the GHG analysis included in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR. Specifically, the California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate the existing electricity usage by inputting into the program the size of the land uses, the electrical demand factors for the land uses, electrical intensity factors related to water usage, and the estimated existing vehicle miles traveled (VMT) at the Project Site. It is estimated that existing uses on the Project Site currently consume approximately 398,448 kWh of electricity per year.[21]

(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

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17 *LADWP, 2017 Power Strategic Long-Term Resources Plan, Section 1, p. 17.*

18 *LADWP, 2017 Power Strategic Long-Term Resources Plan, Appendix A, December 2017.*

19 *LADWP, 2020 Power Content Label, October 2020.*

20 *Los Angeles Department of Water and Power, 2017 Retail Electric Sales and Demand Forecast, 2017, p. 14.*

21 *Eyestone Environmental, Energy Calculations for the Sunset and Wilcox Project. See Appendix D of this Draft EIR.*

electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet (cf).

Natural gas is provided to the Project Site by the Southern California Gas Company (SoCalGas). SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.8 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[22]

SoCalGas receives gas supplies from several sedimentary basins in the western United States and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada, as well as local California supplies.[23] The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.[24] Gas supply available to SoCalGas from California sources averaged 97 million cf per day in 2019 (the most recent year for which data are available).[25] SoCalGas supplies natural gas to the Project Site from natural gas service lines located in the Project vicinity.

Existing natural gas usage was estimated based on the same methodology contained in the GHG analysis included in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR. Specifically, the existing natural gas usage is based on the size of the land uses and the natural gas combustion factors for the land uses in units of million British thermal units (MMBtu). It is estimated that existing uses on the Project Site currently consume approximately 180,738 cf of natural gas per year.[26]

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[22] *SoCalGas, Company Profile, www.socalgas.com/about-us/company-profile, accessed January 27, 2021.*

[23] *California Gas and Electric Utilities, 2020 California Gas Report, pp. 111-112.*

[24] *California Gas and Electric Utilities, 2020 California Gas Report, pp. 111-112.*

[25] *California Gas and Electric Utilities, 2020 California Gas Report, p. 111.*

[26] *Eyestone Environmental, Energy Calculations for the Sunset and Wilcox Project. See Appendix D of this Draft EIR.*

(3) Transportation Energy

According to the CEC, transportation accounts for nearly 40 percent of California's total energy consumption in 2018.[27] In 2018, California consumed 15.6 billion gallons of gasoline and 3.1 billion gallons of diesel fuel.[28,29] Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.[30] 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 reduce VMT. According to the California Department of Tax and Fee Administration, total Statewide gasoline consumption has increased by 6 percent from 2011 to 2019.[31] However, this increase is mainly due to population increases as the per capita gasoline consumption is showing a downward trend.[32] The CEC predicts that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity.[33] According to CARB's EMFAC Web Database, Los Angeles County on-road transportation sources consumed 6.21 billion gallons of gasoline and 1.08 billion gallons of diesel fuel in 2020.[34]

The existing on-site land uses currently generate a demand for transportation-related fuel use as a result of vehicle trips to and from the Project Site. The estimate of annual VMT associated with the existing Project Site uses is 1,386,319 VMT per year.[35] This translates to 44,030 gallons of gasoline and 8,917 gallons of diesel per year based on current (2021) fuel economy averages.[36] The Project Site is located near public transit service in the vicinity of the Project Site with multiple local and regional bus lines provided by Metro and LADOT. Specifically, the Project Site is located in a transit-rich neighborhood

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[27] *U.S. Energy Information Administration. California State Profile and Energy Estimates. Consumption by Sector, www.eia.gov/state/?sid=CA#tabs, accessed July 28, 2020.*

[28] *California Board of Equalization, Net Taxable Gasoline Gallons 10-Year Report.*

[29] *California Board of Equalization, Net Taxable Diesel Gallons 10-Year Report.*

[30] *CEC, 2021–2023 Investment Plan Update for the Clean Transportation Program, November 2021.*

[31] *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed March 8, 2021.*

[32] *Eno Center for Transportation, How Have Different State Populations Changed Their Gasoline Consumption?, www.enotrans.org/article/how-have-different-state-populations-changed-their-gasoline-consumption/, May 21, 2019, accessed March 8, 2021.*

[33] *CEC, 2015 Integrated Energy Policy Report, docketed June 29, 2016, p. 113.*

[34] *California Air Resources Board, EMFAC2017 Web Database, www.arb.ca.gov/emfac/2017/. Details provided in Appendix D of this Draft EIR.*

[35] *Eyestone Environmental, Energy Calculations for Sunset and Wilcox Project, see Appendix D of this Draft EIR.*

[36] *Eyestone Environmental, Energy Calculations for Sunset and Wilcox Project, see Appendix D of this Draft EIR.*

with bus stops along Sunset Boulevard and Wilcox Avenue and the Metro B Line Hollywood/Vine Station located 0.4 mile from the Project Site.

3. Project Impacts

a. Thresholds of Significance

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

Threshold (a): Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Threshold (b): Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

With regard to Threshold (a), this analysis relates to Appendix F to the CEQA Guidelines, prepared in response to the requirement in PRC Section 21100(b)(3) that an EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy."

In addition, with regard to potential energy impacts, the *L.A. CEQA Thresholds Guide* states that a determination of significance shall consider the following factor[37]:

- 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 F and the *L.A. CEQA Thresholds Guide*, the following factors were considered in determining whether the Project would have a significant impact with regard to Threshold (a):

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.

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[37] *L.A. CEQA Thresholds Guide factors related to infrastructure are evaluated in Section IV.J.3, Utilities and Service Systems—Energy Infrastructure, of this Draft EIR.*

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.

With regard to Threshold (b), the Project was 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 Code, and City building codes. Also, as discussed in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, the Project was also evaluated for consistency with the 2020–2045 RTP/SCS, which includes goals to reduce VMT and corresponding decrease in fuel consumption.

b. Methodology

CEQA Guidelines Appendix F provides topics that the lead agency may consider in the discussion of energy use in an EIR:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle 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 degree to which the project complies with existing energy standards.

- The effects of the project on energy resources.

- The project's projected transportation energy use requirements and its overall use of efficient transportation activities.

(1) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control (including supply and conveyance) and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. [38] Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using CalEEMod.[39] Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was calculated based on data provided in South Coast Air Quality Management District (SCAQMD) construction surveys (i.e., construction activity, horsepower, load factor, and hours of use per day).[40] Although the Project Site would use electricity from poles where possible, electricity demand calculations were based on SCAQMD construction surveys which identifies the use of diesel generators to supply construction sites with electrical power.

In terms of natural gas, construction activities typically do not involve the consumption of natural gas and current plans do not involve use of natural gas powered construction equipment.

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., the hauling of demolition material to offsite reuse and disposal facilities). Fuel consumption from onsite, heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix D of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of the SCAQMD *CEQA Air Quality Handbook*. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC 2017 model (EMFAC2017). EMFAC provides the total annual VMT and

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[38] *Construction activities include demolition of the existing site, site preparation, grading, building construction, building finishes, landscaping and paving.*

[39] *California Air Pollution Control Officers Association, CalEEMod™ version 2020.4.0 User's Guide, May 2021.*

[40] *CalEEMod Users Guide, Appendix E1, Technical Source Documentation, October 2017.*

fuel consumed for each vehicle type. Consistent with CalEEMod, construction worker trips were assumed to include 50 percent light duty gasoline auto and 50 percent light duty gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix D of this Draft EIR for detailed calculations.

(2) Operation

Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas was calculated using demand factors provided in CalEEMod as part of the GHG analysis included in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR. As mentioned above, electricity usage and natural gas consumption is calculated based on default energy demand factors contained within CalEEMod for the Project land uses. Electricity from water usage is also based on CalEEMod demand factors for water usage and wastewater production and electricity intensity factors related to water treatment and conveyance.

Energy impacts associated with transportation during operation were also assessed. Daily trip generation used in this analysis was based on the *Transportation Assessment for the Sunset+Wilcox Project*, prepared by Fehr and Peers. (See Appendix J of this Draft EIR). As discussed therein, Project-related VMT was calculated using the LADOT VMT Calculator. The VMT Calculator was developed by the City and LADOT to comply with SB 743, which requires lead agencies to adopt VMT criteria to determine transportation related impacts. Weekend project trips were based on the Institute of Transportation Engineers trip generation factors for the applicable land uses. The daily Project-related VMT were then input into CalEEMod, which calculated the annual VMT. The resulting annual VMT was used as part of the GHG analysis included in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR. Based on this annual VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon calculated using EMFAC2014. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for Los Angeles County.

As discussed in Section IV.A, Air Quality, of this Draft EIR, the Project would include emergency generators to be installed and maintained by the LADWP. The emergency generators would be operated in the event of a power failure and for routine maintenance and testing. Testing of the generators would be conducted on a monthly basis for 15 minutes at a time. As these generators would be tested on a regular basis, the Project would result in an increase in fuel consumption.[41] Fuel consumption was calculated based

[41] *The National Fire Protection Association (NFPA) requires regular testing of emergency generators in accordance with NFPA Standard 110, Standard for Emergency and Standby Power Systems.*

on hours of testing per year and the fuel consumption rate provided by the generator manufacturer.

CalEEMod output files and supporting calculations are provided in Appendix D of this Draft EIR. These calculations were used to determine, as required by Appendix F guidelines, if the Project would cause the wasteful, inefficient, and/or unnecessary consumption of energy.

c. Project Design Features

The Project includes project design features designed to improve energy efficiency as set forth in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, including Project Design Features GHG-PDF-1 and Section IV.J.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, including Project Design Feature WAT-PDF-1. Under Project Design Feature GHG-PDF-1, the Project would incorporate energy efficiency and conservation features to achieve LEED Gold Certification. These measures include, but are not limited to, the following: use of light-emitting diode (LED) and other efficient lighting technology; energy saving lighting control systems, such as light- and motion-detection controls (where applicable); energy efficient heating, ventilation, and air conditioning (HVAC) equipment; plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) that comply with the performance requirements specified in the City of Los Angeles Green Building Code; weather-based irrigation system; water-efficient landscaping; a limitation on the number of natural gas fireplaces/firepits; tankless and on-demand water heaters; and individual metering and billing for commercial water use. Additionally, as described in Section II, Project Description, of this Draft EIR, as part of the Project, an LADWP transformer yard would be installed on the De Longpre Lot that would include an electrical switchgear and an underground generator for the proposed office building.

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 seven factors in the Thresholds of Significance subsection above to determine whether Threshold (a) 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 (during operation only), 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 (demolition, construction, operations, maintenance, and removal activities).[42]

For purposes of this analysis, Project maintenance would include activities, such as repair of structures, landscaping and architectural coatings, which could potentially use electricity and petroleum-based fuels. Energy usage related to Project maintenance activities are assumed to be included as part of Project operations. As discussed above, the Project would construct an enclosure to support an LADWP emergency generator and transformer yard and is not expected to provide long-term electrical generation. Project removal activities would include demolition of the proposed buildings following their construction and/or abandonment of the Project Site. However, it is not known when the Project would be removed. Therefore, analysis of energy usage related to Project removal activities are too speculative for evaluation. For this reason, impacts related to the energy usage of the removal or abandonment of the Project were not analyzed.

(i) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electric equipment, or other construction activities necessitating electrical power. Electricity from these construction activities would be limited in comparison to existing operational electricity usage at the Project Site given that construction activities would be intermittent and temporary. 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).

As shown in Table IV.C-1 on page IV.C-23, a total of 23,903 kWh of electricity, 58,612 gallons of gasoline, and 222,521 gallons of diesel are estimated to be consumed

[42] *Removal activities relate to the life of a project.*

Table IV.C-1
Summary of Energy Use During Project Construction[a]

Fuel Type	Quantity
Electricity	
Water Consumption	1,727 kWh
Lighting, Electric Equipment, and Other Construction Activities Necessitating Electrical Power[b]	22,176 kWh
Total Electricity[c]	**23,903 kWh**
Gasoline	
On-Road Construction Equipment	58,612 gallons
Off-Road Construction Equipment	0 gallons
Total Gasoline	**58,612 gallons**
Diesel	
On-Road Construction Equipment	93,914 gallons
Off-Road Construction Equipment	128,607 gallons
Total Diesel	**222,521 gallons**

kWh = kilowatt hours

[a] *Detailed calculations are provided in Appendix D of this Draft EIR.*

[b] *Electricity usage is based on SCAQMD construction site survey data and typical requirements for power generators. Such electricity demand would be temporary, limited, and would cease upon the completion of construction.*

[c] *Total construction electricity usage of 23,903 kWh represents approximately 6 percent of the 398,448-kWh existing annual operational electricity usage.*

Source: Eyestone Environmental, 2021.

during Project construction. The construction schedule assumes that construction would take place within a 28-month duration with completion in 2026.

Electricity

During construction of the Project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electric equipment, and other construction activities necessitating electrical power. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. This is consistent with suggested measures in the *L.A. CEQA Thresholds Guide* to use electricity from power poles rather than temporary gasoline or diesel-powered generators.

As shown in Table IV.C-1, a total of approximately 23,903 kWh of electricity are anticipated to be consumed during Project construction. The electricity demand at any given time would vary throughout the construction period based on the construction

activities being performed, with the demolition and grading phases having the greatest demand, and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements, which include limits on the wattage allowed per specific area, which result in the conservation of energy.[43] As such, the demand for electricity during construction would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

Natural Gas

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; thus, there would be no demand generated by construction. The Project also does not anticipate use of natural gas powered construction equipment. As such, the energy requirements and energy use of the Project related to natural gas during construction would result in no impact and not cause wasteful, inefficient, and unnecessary use of energy.

Transportation Energy

The petroleum-based fuel use summary provided in Table IV.C-1 on page IV.C-23 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix D of this Draft EIR. The construction energy analysis assumes that all equipment would be operating continuously (8 hours per day) throughout the entire duration of construction. However, under real world typical conditions, most equipment would be operating less than 8 hours per day. As shown in Table IV.C-1, on- and off-road vehicles would consume an estimated 58,612 gallons of gasoline and approximately 222,521 gallons of diesel fuel for the Project's construction.

Moreover, trucks and equipment used during proposed construction activities would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to federal fuel efficiency requirements. Therefore, Project construction activities would comply with existing energy standards with

[43] *California Building Energy Efficiency Standards, Title 24, Part 6, §110.9, §130.0, and §130.2.*

regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

Construction Materials

The energy analysis does not include a full life cycle analysis of energy usage that would occur over the production/transport of materials used during the construction of the Project or used during the operational life of the Project, or the end of life for the materials and processes that would occur as an indirect result of the Project. Estimating the energy usage associated with these processes would be too speculative for meaningful consideration, would require analysis beyond the current state-of-the-art in impact assessment, and may lead to a false or misleading level of precision in reporting. Manufacture and transport of materials related to Project construction and operation is expected to be regulated under regulatory energy efficiency requirements. Therefore, it is assumed that energy usage related to construction and operational materials would be consistent with current regulatory requirements regarding energy usage and, therefore, not wasteful, inefficient, or unnecessary, and impacts would be less than significant.

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, the following: heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in Table IV.C-2 on page IV.C-26, the Project's energy demand would be approximately 8,070,743 kWh of electricity per year and 6,979,085 cf of natural gas per year. The Project would also result in 283,567 gallons of gasoline per year and 57,801 gallons of diesel fuel per year consumed.

Electricity

As shown in Table IV.C-2, with compliance with Title 24 standards and applicable CALGreen Code requirements, the Project would result in an on-site demand for electricity totaling approximately 8,070,743 kWh per year. In addition to complying with the CALGreen Code, the Applicant would also implement Project Design Feature GHG-PDF-1 presented in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings will incorporate sustainability features (e.g., use of light-emitting diode (LED) and other efficient lighting technology), and Project Design Feature WAT-PDF-1, presented in Section IV.J.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, which states that the Project will incorporate water conservation features, such as high-efficiency toilets, waterless urinals, and drip/ subsurface irrigation, among others. These measures would further reduce the Project's

Table IV.C-2
Summary of Annual Energy Use During Project Operation[a]

Source	Estimated Energy Demand	
	Operation (Project)	**Existing**
Electricity		
Building	6,845,595 kWh	335,277 kWh
Water[b]	1,094,055 kWh	63,171 kWh
EV Chargers[c]	131,093 kWh	0 kWh
Total Electricity[d]	**8,070,743 kWh**	**398,448 kWh**
Natural Gas		
Building	6,979,085 cf	180,738 cf
Total Natural Gas[d]	**6,979,085 cf**	**180,738 cf**
Emergency Generator		
Diesel	370 gallons	0 gallons
Transportation (On-Road Vehicles)		
Gasoline	283,567 gallons	44,030 gallons
Diesel	57,431 gallons	8,917 gallons
Total Transportation (including Emergency Generator)[e]	**341,367 gallons**	**52,947 gallons**

cf = cubic feet

gal = gallons

kWh = thousand kilowatt hours

[a] *Detailed calculations are provided in Appendix D of this Draft EIR. Totals may not precisely add up due to rounding.*

[b] *Calculations assume compliance with Project Design Feature GHG-PDF-1 provided in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR and Project Design Feature WAT-PDF-1 provided in Section IV.J.1, Utilities and Service System—Water Supply and Infrastructure.*

[c] *As discussed in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, the Project would provide at least 30 percent of Code-required parking spaces with the capability of supporting electric vehicle supply equipment (EVSE) and that a minimum of 10 percent of Code-required parking spaces would be further equipped with EV charging stations consistent with City building codes.*

[d] *Electricity and natural gas estimates assume compliance with applicable CALGreen Code requirements and implementation of Project Design Feature GHG-PDF-1, in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR which assumes use of light emitting diodes (LED) lighting, reduce lighting energy usage by 25 percent.*

[e] *Transportation fuel estimates include Project characteristics consistent with CAPCOA guidance measures. Fuel estimates conservatively do not include reductions in fuel usage associated with installation of EV chargers as required by City building codes. Estimate of Project's transportation fuel conservatively includes existing uses.*

Source: Eyestone Environmental, 2021.

energy demand. In addition, the Project would be subject to the 2019 Title 24 standards, which represent "challenging but achievable design and construction practices" that represent "a major step towards meeting the ZNE goal." Nonresidential buildings built in

compliance with the 2019 standards use about 30 percent less energy than those under the 2016 standards.[44] This analysis conservatively includes only a 10-percent reduction in the CalEEMod calculated energy use to account for compliance with 2019 Title 24 standards.

LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020.[45] The current sources procured by LADWP include wind, solar, and geothermal sources. These sources account for 37 percent of LADWP's overall energy mix in 2020, the most recent year for which data are available.[46] This represents the available off-site renewable sources of energy that would meet the Project's energy demand. The use of renewable energy would indirectly reduce use of fossil fuels (e.g., natural gas, coal, oil) required for electricity generation. While the electricity usage rate for a given land use would not be directly affected by the availability of renewable energy, the consumption of fossil fuels required for electricity generation would be reduced.

In addition, the Project would comply with Section 110.10 of Title 24, which includes mandatory requirements for solar-ready buildings and, as such, would not preclude the potential use of alternate fuels.

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2026-2027 fiscal year (the Project's buildout year) would be 23,807 GWh of electricity.[47,48] As such, the Project-related annual electricity consumption of 8,070,743 kWh per year would represent less than 0.1 percent of LADWP's projected sales in 2026. In addition, as previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage and additional efficiency requirements under various regulations, such as Title 24 energy efficiency requirements, CALGreen Code, and City building codes, which may further reduce Project-related consumption. As such, the demand for electricity during operation would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

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[44] *CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.*

[45] *Executive Order S-14-08*

[46] *LADWP, 2020 Power Content Label, October 2020.*

[47] *LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.*

[48] *LADWP, 2017 Power Strategic Long-Term Resources Plan, Appendix A, Table A-1, December 2017.*

Natural Gas

As provided in Table IV.C-2 on page IV.C-26, the Project is projected to generate an on-site demand for natural gas totaling approximately 6,979,085 cf per year, assuming compliance with Title 24 standards and applicable CALGreen Code requirements. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen Code), the Project would implement project design features to further reduce energy use. Specifically, the Applicant would implement Project Design Feature GHG-PDF-1 presented in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings will incorporate sustainability features (e.g., energy efficient HVAC equipment). As discussed above, the Project would be subject to the 2019 Title 24 standards, which represent "challenging but achievable design and construction practices." However, CalEEMod default energy usage factors are based on 2016 Title 24 standards. This analysis, therefore, conservatively includes only a 10-percent reduction in the CalEEMod default (2016 Title 24) calculated energy use to account for compliance with 2019 Title 24 standards.

As stated above, the Project's estimated demand for natural gas is 6,979,085 cf per year, or approximately 19,121 cf per day. Based on the 2020 California Gas Report, the estimated natural gas consumption within SoCalGas' planning area would be approximately 2.435 billion cf/day in 2026.[49] The Project would account for approximately 0.0008 percent of the 2026 forecasted consumption in SoCalGas' planning area. In addition, as also previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage, such as energy efficient HVAC equipment. As such, the demand for natural gas during operation would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

Stationary Sources

The Project would also include an emergency generator to be installed and maintained by LADWP and is not expected to provide long-term power generation. However, the generator would require periodic testing, which would consume diesel fuel. As shown in Table IV.C-2, diesel fuel usage would be approximately 370 gallons per year related to testing and maintenance of the emergency generator.

[49] *California Gas and Electric Utilities, 2020 California Gas Report, p. 147, line 7.*

Transportation Energy

During operation, Project-related vehicle trips would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. As noted above, the Project Site is located in an HQTA designated by SCAG, which indicates that the Project Site is an appropriate site for increased density and employment opportunities from a "smart growth," regional planning perspective. Furthermore, the Project Site is located near public transit service, with multiple local and regional bus lines provided by Metro and LADOT.

Previously, trip generation for land uses was calculated based on survey data collected by the Institute of Transportation Engineers (ITE). However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019, the USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors, such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the USEPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments.[50] The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features, such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. Furthermore, as discussed in Section IV.J, Transportation, of this Draft EIR, the Project would also implement VMT reduction measures to further reduce vehicle trips and associated energy usage, including bicycle parking supply consistent with LAMC requirements and reduced parking supply compared to LAMC standards. As such, the Project's siting would minimize transportation fuel consumption through the reduction of VMT, as described above and discussed further in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR. With incorporation of these trip reduction measures, Project transportation-fuel usage would be reduced by 34 percent for both gasoline and diesel fuels, as demonstrated by the calculations included in Appendix D of this Draft EIR.

As summarized in Table IV.C-2 on page IV.C-26, when accounting for the measures that would be implemented to reduce VMT, the Project's estimated petroleum-based fuel usage would result in 283,567 gallons of gasoline and 57,431 gallons of diesel per year consumed, or a total of 341,367 gallons of petroleum-based fuels consumed annually, including 370 gallons of diesel per year consumed by the emergency generator. Detailed

[50] *Environmental Protection Agency, Mixed-Use Trip Generation Model, www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed May 7, 2021.*

calculations demonstrating reductions in transportation fuel usage are provided in Appendix D of this Draft EIR. As such, the demand for petroleum-based fuel usage during operation would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

(iii) Summary of Energy Requirements and Energy Use Efficiencies

As previously discussed, CEQA Guidelines Appendix F recommends quantification of a project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed. The Project's energy requirements were calculated based on the methodology contained in CalEEMod for electricity and natural gas usage. Project VMT data were calculated based on the LADOT VMT Calculator. The calculations also took into account energy efficiency measures, such as Title 24, CALGreen Code, and vehicle fuel economy standards. Table IV.C-1 and Table IV.C-2 on pages IV.C-23 and IV.C-26, respectively, provide a summary of Project construction and operational energy usage, respectively. During Project construction activities, a total of 23,903 kWh of electricity would be consumed along with 281,133 gallons of transportation fuel (gasoline and diesel). During Project operations, 8,070,743 kWh of electricity and 6,979,085 cf of natural gas would be consumed on an annual basis. The Project would also result in 341,367 gallons of transportation fuel consumption. When accounting for project design features and increased energy efficiency measures as described in Project Design Feature GHG-PDF-1, operational electricity usage would be reduced by 10 percent. Use of light emitting diodes (LED) lighting would reduce lighting energy usage by 25 percent, and a 20-percent reduction in water usage with implementation of Project Design Feature WAT-PDF-1 would result in a corresponding 20-percent reduction in electricity associated with delivery, treatment, and distribution of water. Transportation fuel usage would be reduced by 34 percent compared to the Project without trip reduction features. Detailed calculations demonstrating this reduction are provided in Appendix D of this Draft EIR.

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

(i) Construction

As discussed above, electricity would be intermittently consumed during the conveyance of the water used to control fugitive dust, as well as 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 so as to avoid unnecessary energy consumption. The Project's estimated construction electricity usage represents

approximately 6 percent of the estimated Project Site's existing annual operational demand, which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.[51] Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Transportation fuel usage during Project construction activities would represent approximately 0.001 percent of gasoline usage and 0.02 percent of diesel usage within Los Angeles County, respectively.[52] As energy consumption during Project construction activities would be relatively negligible, the Project would not materially affect local and regional energy supplies during the construction period or require additional capacity, and impacts would be less than significant.

(ii) Operation

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2026–2027 fiscal year (the Project's buildout year) would be 23,807 GWh of electricity.[53,54] As such, the Project-related operational increase in annual electricity consumption of 8,070,743 kWh per year would represent less than 0.1 percent of LADWP's projected sales in 2026.[55] Furthermore, LADWP has confirmed that the Project's operational electricity demand can be served by the facilities in the Project area.[56] Therefore, LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's operational electricity demand.

As stated above, the Project's estimated operational demand for natural gas is 6,979,085 cf per year, or approximately 18,966 cf per day. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimated natural gas consumption within SoCalGas' planning area will be approximately 2.432 billion cf/day in 2026.[57] The Project would account for approximately 0.0008 percent of the 2026 forecasted

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[51] *The percentage is derived by taking the total amount of electricity usage during construction (23,903 kWh) and dividing that number by the total amount of electricity usage during existing conditions (409,060 kWh) to arrive at six percent.*

[52] *Calculated based on EMFAC2017 for Buildout Year using Los Angeles County data. Refer to Appendix D for detailed calculations.*

[53] *LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.*

[54] *LADWP, 2017 Power Strategic Long-Term Resources Plan, Appendix A, Table A-1, December 2017.*

[55] *LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A.*

[56] *Sunset+Wilcox Project Utility Infrastructure Technical Report: Water and Energy, June 2020, Exhibit 5. Refer to Appendix M of this Draft EIR.*

[57] *California Gas and Electric Utilities, 2020 California Gas Report, p. 147, line 7.*

consumption in SoCalGas' planning area. SoCalGas has confirmed that they have facilities in the area to serve the Project.[58]

At buildout, the operation of the Project would result in an increase of 283,567 gallons of gasoline and 57,801 gallons of diesel per year, or a total of 341,367 gallons of petroleum-based fuels consumed per year, as shown in Appendix D of this Draft EIR. Transportation fuel usage during Project operations would represent approximately 0.005 percent of gasoline and diesel usage within Los Angeles County.

In sum, energy consumption during Project operations would not materially affect LADWP's and SoCalGas' energy supplies or requirements for additional capacity. As such, impacts would be less than significant.

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

As discussed above, the electricity demand, natural gas consumption, and transportation energy consumption would be well within the available regional supplies and overall capacity of LADWP, SoCalGas, and California refineries, respectively. The Project's energy demand and consumption are negligible compared to available supplies during both construction and operation.

Electricity demand during construction (23,903 kWh) and operation (8,070,743 kWh) of the Project would have a negligible effect on the overall capacity of LADWP's power grid and base load conditions. With regard to peak load conditions, the LADWP power system experienced an all-time high peak of 6,432 MW on August 31, 2017.[59] In 2018, the LADWP power system experienced a peak of 6,195 MW on July 6, 2018. 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, the base case peak demand for the power grid is 5,820 MW.[60] The Project would consume 1,656 kW during peak load conditions. In comparison to the LADWP power grid base peak load of 5,820 MW in 2018, the Project's electricity demand would represent approximately 0.03 percent of the LADWP base peak load conditions.[61] In addition, LADWP's annual

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[58] *Sunset+Wilcox Project Utility Infrastructure Technical Report: Water and Energy, June 2020, Exhibit 6. Refer to Appendix M of this Draft EIR.*

[59] *LADWP, 2018 Retail Electric Sales and Demand Forecast. p. 6.*

[60] *LADWP, 2018 Retail Electric Sales and Demand Forecast. p. 6.*

[61] *The percentage is derived by taking the peak electricity usage during Project operations (1,656 kW) and dividing that number by the LADWP base case peak demand of 5,820,000 kWh (5,820 MWh) to arrive at 0.03 percent.*

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.[62] Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid.

With regard to peak day natural gas demand, the 2020 California Gas Report estimates for 2026, the extreme peak demand for the SoCalGas service area is 2,457 million cf/day. Under peak conditions, the Project would consume approximately 19,120 cf per day. In comparison to the CEC extreme peak day demand of 2,457 million cf for 2026, based on the assumption above, the Project would represent 0.0008 percent of SoCalGas' forecasted extreme peak day demand. Therefore, Project natural gas demand during operational activities would have a negligible effect on peak demands of the natural gas supplies.

The electricity and natural gas energy supplies would be sufficient to serve the Project's peak energy demand. Thus, the Project's electricity and natural gas demand during operational activities would have a negligible effect on demand during peak and base load periods of the power grid and on the natural gas supplies, and impacts would be less than significant.

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

Although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (greater than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements (includes limits on the wattage allowed per specific area). In addition, construction equipment would comply with energy efficiency requirements contained in the Federal Energy Independence and Security Act or previous Energy Policy Acts for electrical motors and equipment.[63] Electricity and natural gas usage during Project operations presented in Table IV.C-2 on page IV.C-26 would comply with 2019 Title 24 standards and applicable CALGreen Code and Los Angeles Green Building Code requirements. Therefore, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage.

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

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[62] *LADWP, 2017 Retail Electric Sales and Demand Forecast. p. 6.*

[63] *Energy Independence and Security Act of 2007. Pub.L. 110-140.*

intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy. During Project operations, vehicles traveling to and from the Project Site are assumed 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, as required.

Based on the above, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage, as well as transportation fuel consumption, and impacts would be less than significant.

(e) Effects of the Project on Energy Resources

As discussed above, 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 Power Strategic Long-Term Resources Plan (SLTRP) identifies adequate resources (natural gas, coal) to support future generation capacity. The LADWP 2017 Power SLTRP contains an analysis of actions to maintain regulatory requirements for providing electricity while accommodating for population growth within the region. As the Project would be receiving electricity from the LADWP, the Project's construction and operational activities would have a negligible effect on the region's electricity supply.

Natural gas supplied to 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.[64] According to the U.S. Energy Information Administration (EIA), the United States currently has over 84 years of natural gas reserves based on 2019 production.[65] 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.

With regard to on-site energy resources, the Project Site does not contain any significant sources of renewable (i.e., water, solar, wind, geothermal) or non-renewable energy, such as coal, natural gas, or petroleum. In addition, the Project would not generate power using non-renewable sources or associated energy transmission lines. Therefore,

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[64] *California Gas and Electric Utilities, 2020 California Gas Report.*

[65] *U.S. Energy Information Administration, Frequently Asked Questions www.eia.gov/tools/faqs/faq.php?id=58&t=8, accessed March 8, 2021.*

the Project construction and operation activities would not conflict with existing or planned energy resources.

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.[66] 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 GHG emissions, but would also result in fuel savings in addition to compliance with CAFE standards. The Project would also include provisions to support alternative modes of transportation by providing for bicycle parking spaces and preferred parking for fuel efficient vehicles, resulting in a reduction of transportation fuel usage. Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply, and impacts would be less than significant.

As discussed above in Subsection 2.a, 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. However, in September 2018, SB 100 was signed, which requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 50-percent renewable resources target by December 31, 2026, and 60-percent by December 31, 2030. Accordingly, LADWP is required to procure at least 60 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources account for 37 percent of LADWP's overall energy mix in 2020, the most recent year for which data are available.[67] This represents the available off-site renewable sources of energy that would meet the Project's energy demand. The Project's use of renewable energy would indirectly reduce use of fuels (e.g., natural gas, coal, oil) required for electricity generation. While the Project's electricity usage rate would not be directly affected by the availability of renewable energy, the Project's usage of renewable energy would indirectly avoid consumption of fossil fuels.

With regard to on-site renewable energy sources, due to the Project Site's location, other on-site renewable energy sources would not be feasible to install onsite as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, methane, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using

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[66] *BP Global, Oil Reserves, www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html, accessed January 17, 2021.*

[67] *LADWP, 2020 Power Content Label, October 2020.*

renewable fuels. Furthermore, 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.[68]

Based on the above, the Project's electricity and natural gas consumption would not affect energy resources of LADWP or SoCalGas. The Project would also comply with CAFE fuel economy standards and encourage alternative modes of transportation resulting in a negligible effect on transportation fuel resources. The Project would also comply with Title 24 requirements for solar energy and would not affect the renewable energy resources within the region. Therefore, the Project would not affect energy resources, and impacts would be less than significant.

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

As discussed above, the Project is an infill development within an existing urbanized area that would introduce new office and restaurant uses within an HQTA. The Project Site is well served by public transportation with multiple local and regional bus lines provided by Metro and LADOT. Specifically, the Project Site is located in a transit-rich neighborhood with bus stops along Sunset Boulevard and Wilcox Avenue and the Metro B Line Hollywood/Vine Station located 0.4 mile from the Project Site. In accordance with the LAMC, the Project includes 143 bicycle parking spaces. Taking into consideration the accessibility to mass transit, bicycle parking, and proximity to job centers and retail uses, the Project results in a VMT reduction of approximately 34 percent (see Appendix D of this Draft EIR) with an equal reduction in the Project's petroleum-based fuel usage compared to a Project without reduction features.[69,70] Therefore, the Project would encourage the use of efficient transportation alternatives, and impacts would be less than significant.

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

The current City of Los Angeles Green Building Code requires compliance with the CALGreen Code and California's Building Energy Efficiency Standards (Title 24). In addition to compliance with the City's Green Building Code, the Project would comply with

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[68] *CEC, Wind Project and Wind Resource Areas, 2018.*

[69] *The Project without Reduction Features scenario does not account for energy efficiency measures or trip reductions.*

[70] *VMT reduction calculations provided in Appendix D, CalEEMod Vehicle Trip Input Calculations.*

2019 Title 24 standards, which represent "challenging but achievable design and construction practices" that represent "a major step towards meeting the ZNE goal." Nonresidential buildings built in compliance with the 2019 standards will use about 30 percent less energy than those under the 2016 standards.[71] In addition, Project Design Feature GHG-PDF-1 would incorporate sustainability features, including the use of Energy Star appliances and LED lighting. Incorporation of these sustainability measures would allow the Project to meet Title 24 energy efficiency requirements and State and City energy conservation requirements.

In addition, Project Design Feature WAT-PDF-1 in Section IV.J.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, states that the Project would implement water conservation features, including high-efficiency toilets with flush volume of 1.0 gallon of water per flush, waterless urinals, and drip/subsurface irrigation, among others. A reduction in water usage would in turn reduce the amount of electricity used for water conveyance. Therefore, the Project would incorporate measures that meet current State and City energy conservation requirements.

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, the City of Los Angeles Space Allocation Ordinance (Ordinance No. 171,687), 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. As discussed in the Initial Study included as Appendix A of this Draft EIR, the Project would be consistent with the applicable regulations associated with solid waste. Specifically, the Project would provide adequate storage areas in accordance with Ordinance No. 171,687, which requires that development projects include an on-site recycling area or room of specified size.[72] The Project would also comply with State and City waste diversion goals, as applicable, by providing clearly marked, source-sorted receptacles to facilitate recycling. Thus, through compliance with the City's solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

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[71] *CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.*

[72] *Ordinance No. 171,687, adopted by the Los Angeles City Council on August 6, 1997.*

Based on the above, with compliance with State and local energy efficiency standards, the Project would meet and/or exceed applicable energy conservation policies and regulations, and impacts would be less than significant.

(h) Conclusion Regarding Threshold (a)

As demonstrated in the analysis above, the Project would not result in potentially significant environmental impacts due to wasteful, inefficient, and unnecessary consumption of energy resources during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or require additional 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. As also discussed, gasoline fuel usage for the region is expected to be on the decline over the next 10 years. The Project's transportation fuel consumption is also expected to decline based on more stringent CAFE fuel economy standards. As transportation fuel supply is not expected to decrease significantly over this same period, supplies would be sufficient to meet Project demand. Therefore, 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. With respect to operation, the Project would comply with existing energy efficiency requirements, such as CALGreen Code, as well as include energy conservation measure requirements. **In summary, for all the reasons set forth above, the Project's energy demands would not cause wasteful, inefficient, or unnecessary use of energy. Therefore, Project impacts related to energy use under Threshold (a) would be less than significant with respect to both construction and operation.**

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project level impacts related to energy use was determined to be less than significant without mitigation. Therefore, no mitigation measures are required, and the impact level would remain less than significant.

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

(1) Impact Analysis

The energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the 2019 CALGreen Code, the City of Los Angeles Green Building Code, City of LA Green New Deal, and SCAG's 2020–2045 RTP/SCS. As these conservation policies are mandatory under the City's Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency. Such requirements of the Title 24, CALGreen Code, and the City's Green Building Code include specific lighting requirements to conserve energy, window glazing to reflect heat, enhanced insulation to reduce heating and ventilation energy usage, and enhanced air filtration. The Project would implement these measures as required by code. The 2019 Title 24 standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. In addition, the Project would implement measures to comply with Title 24 energy efficiency requirements, including Project Design Features GHG-PDF-1 and WAT-PDF-1, as discussed above and included in Section IV.D, Greenhouse Gas Emissions, and Section IV.J.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, respectively.

With regard to transportation uses, the Project's design would reduce VMT in comparison to developments located in non-infill, non-urban areas and encourage use of alternative modes of transportation. The Project would be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.E, Land Use and Planning, of this Draft EIR, SCAG's 2020–2045 RTP/SCS focuses on creating livable communities with an emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2020–2045 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The Project would be consistent with the energy efficiency policies emphasized in the 2020–2045 RTP/SCS. Most notably, the Project is a commercial development located in an area characterized by a high degree of pedestrian activity. The 2020–2045 RTP/SCS also identifies HQTAs, which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.[73] Local jurisdictions are encouraged to focus housing and employment growth within HQTAs to reduce VMT. The Project Site is located within an HQTA as

[73] *SCAG, 2020–2045 RTP/SCS, p. 23.*

designated by the 2020–2045 RTP/SCS and, as such, would provide greater proximity to neighborhood services and would be well-served by existing public transportation.[74,75]

The Project's introduction of new job opportunities within an HQTA is consistent with numerous policies in the 2020–2045 RTP/SCS related to locating new jobs near transit. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions and corresponding VMT by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State's GHG emission reduction goals.[76] OPR recommends that achieving a 15-percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State's emissions goals.[77] To analyze the consistency of the Project with the 2020–2045 RTP/SCS, the Project's Daily VMT was divided by the Project's number of employees to arrive at the daily VMT per capita. The estimate, as provided in Table IV.D-7 in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, was compared to the applicable area planning commission (APC) average designated for the Project area.[78] As shown therein, the Project results in a daily per capita VMT of 6.1 miles for employees, which represents a reduction of 30 percent for employees in daily VMT per capita when compared to the APC designated for the Project area. This level of VMT per capita is consistent with OPR's recommended reduction in VMT per capita to meet the State's GHG emission reduction goals. In addition, the Project would comply with State energy efficiency requirements, would comply with Title 24 requirements, and would use electricity from LADWP, which has a current renewable energy mix of 37 percent. All of these features would serve to reduce the consumption of electricity,

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[74] *SCAG, 2020–2045 RTP/SCS, Exhibit 3.8: High Quality Transit Areas in the SCAG Region for 2045 Plan, p. 90.*

[75] *SCAG, 2020-2045 RTP/SCS, Exhibit 3.8: High Quality Transit Areas in the SCAG Region for 2045 Plan, p. 90; The City's ZIMAS identifies the Project Site as also located in Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."*

[76] *On October 30, 2020, CARB certified SCAG's determination that the 2020-2045 RTP/SCS would achieve this 2035 GHG reduction target.*

[77] *Governor's Office of Planning and Research. Technical Advisory—On Evaluating Transportation Impacts in CEQA, December 2018, p. 12.*

[78] *City of Los Angeles Departments of City Planning and Transportation, CEQA Transportation Analysis Update Frequently Asked Questions, August 2019. The APC area boundaries represent a land area equivalent to a medium-size California city and captures consistent travel behavior zones and geographies in the City of Los Angeles.*

natural gas, and transportation fuel. Based on the above, the Project would be consistent with adopted energy conservation plans.

In addition, vehicle trips generated during Project operations would comply with CAFE fuel economy standards. During construction activities, the Project would be required to comply with CARB anti-idling regulations and the In-Use Off-Road Diesel Fleet regulations.

Based on the above, the Project would not conflict with or obstruct adopted energy conservation plans or violate State or local energy standards for renewable energy or energy efficiency. **Therefore, Project impacts related to regulatory consistency under Threshold (b) would be less than significant.**

(2) Mitigation Measures

Project level impacts related to conflicts with plans would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project level impacts related to conflicts with plans were determined to be less than significant without mitigation. Therefore, no mitigation measures are required, and the impact level would remain less than significant.

e. Cumulative Impacts

(1) Impact Analysis

(a) Threshold (a) (Wasteful, Inefficient, and Unnecessary Use of Energy)

Cumulative impacts occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. Based on the information presented in Section III, Environmental Setting, of this Draft EIR, there are 55 related projects located in the vicinity of the Project Site. The geographic context for the cumulative analysis of electricity is LADWP's service area and the geographic context for the cumulative analysis of natural gas is SoCalGas' service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the Project in the context of County-wide consumption. Growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

(i) Electricity

Buildout of the Project, the 55 related projects in the LADWP service area, and additional growth forecasted to occur in the City would increase electricity consumption during Project construction and operation and therefore, cumulatively increase the need for energy supplies and infrastructure capacity, such as new or expanded energy facilities. LADWP forecasts that its total energy sales in 2026–2027 fiscal year (the Project buildout year) will be 23,807 GWh of electricity. Based on the Project's estimated electrical consumption of 8,070,743 kWh per year, the Project would account for approximately 0.04 percent of LADWP's projected sales for the Project's buildout year. Although future 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 given the sizes and types of uses proposed by the related projects, would be reduced by measures similarly implemented for the Project such as those required by LAMC requirements, and would be consistent with growth expectations for LADWP's service area.

As discussed above, the LADWP has developed the Power Strategic Long-Term Resources Plan, which is a long range planning document identifying electricity generation resources and demand forecasts over the next 20 years. These demand forecasts take into account population and employment growth, new construction permits, and new energy efficiency requirements in the future. The most recent LADWP Power Strategic Long-Term Resources Plan, released in 2017, identifies adequate resources to support future generation capacity. The LADWP would be expected to continue to expand electrical capacity to meet demand increases within its service area as future evaluations of capacity and demand forecasts are conducted. Each of the related projects would also be reviewed by LADWP to identify necessary power facilities and available capacity to provide for individual projects. In addition, the related projects would also incorporate energy efficiency measures to comply with the 2019 Title 24 standards, which represent "challenging but achievable design and construction practices" that represent "a major step towards meeting the ZNE goal." Residential and nonresidential buildings built in compliance with the 2019 standards will use about 30 to 53 percent less energy than those under the 2016 standards.[79] Furthermore, other future development projects and related projects would be expected to incorporate the same energy conservation features as the Project, comply with applicable regulations, including the CALGreen Code and State energy standards under Title 24, and incorporate mitigation measures, as necessary.

Additionally, as discussed above, LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. The current sources of renewable

[79] *CEC, 2019 Building Energy Efficiency Standards, Fact Sheet.*

energy procured by LADWP include wind, solar, and geothermal sources. These sources accounted for 37 percent of LADWP's overall energy mix in 2020, the most recent year for which data are available.[80] This represents the available offsite renewable sources of energy that could meet the Project's and related projects' energy demand. Therefore, the Project and related projects within LADWP's service area would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently.

As such, the Project's contribution to cumulative impacts related to the wasteful, inefficient, and unnecessary use of electricity would not be cumulatively considerable and, therefore, would be less than significant; and the cumulative impact of the Project's incremental effect and the effects of related projects related to wasteful, inefficient, and unnecessary use of electricity would be less than significant.

(ii) Natural Gas

Buildout of the Project, the 55 related projects in the SoCalGas service area, and additional growth forecasted to occur in the City would increase natural gas consumption during project construction and operation and therefore, cumulatively increase the need for energy supplies and infrastructure capacity, such as new or expanded energy facilities. SoCalGas forecasts that its total natural gas consumption in 2026 would be 2.457 billion cf/day. Based on the Project's estimated natural gas consumption of 6,979,085 cf per year, the Project would account for approximately 0.0008 percent of SoCalGas' projected consumption for the Project's buildout year. 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. The related projects also would incorporate energy efficiency measures to meet Title 24 requirements, such as those included for the Project in Project Design Feature GHG-PDF-1. Furthermore, future development projects within SoCalGas' service area would be expected to incorporate energy conservation features, comply with applicable regulations, including the CALGreen Code and State energy standards under Title 24, and incorporate mitigation measures, as necessary.

As such, the Project's contribution to cumulative impacts related to the wasteful, inefficient, and unnecessary use of natural gas would not be cumulatively considerable and, therefore, would be less than significant; and the cumulative impact of the Project's incremental effect and the effects of related projects related

[80] *LADWP, 2020 Power Content Label, October 2020.*

to wasteful, inefficient, and unnecessary use of natural gas would be less than significant.

(iii) Transportation Energy

Buildout of the Project, the 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 283,567 gallons of gasoline and 57,801 gallons of diesel per year, or a total of 341,367 gallons of petroleum-based fuels consumed per year, as shown in Appendix D of this Draft EIR. As discussed above, with incorporation of trip reduction measures, net transportation-fuel usage for the Project would be reduced by 34 percent for both gasoline and diesel fuels.

Related projects in the Project vicinity, as listed in Table III-1 in Section III, Environmental Setting, of this Draft EIR, would also be infill projects locating uses near other residential and commercial uses which would reduce distance traveled, as well as consumption of transportation fuel. As analyzed above, Project transportation fuel usage would represent a small percentage of total fuel consumption within Los Angeles County. While it is speculative to assess transportation fuel usage from related projects, it is expected that cumulative transportation fuel usage resulting from the Project and related projects would be consistent with projections discussed above.

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 California Department of Tax and Fee Administration, gasoline consumption has increased by 6 percent from 2011 to 2019.[81] However, this increase is mainly due to population increases as the per capita gasoline consumption is showing a downward trend.[82] The CEC also predicts 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.

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[81] *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports (December 2020—Motor Vehicle Fuel 10 Year Report), www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed March 26, 2021.*

[82] *Eno Center for Transportation, How Have Different State Populations Changed Their Gasoline Consumption?, www.enotrans.org/article/how-have-different-state-populations-changed-their-gasoline-consumption/, May 21, 2019, accessed March 8, 2021.*

Furthermore, as previously discussed, the Project would be consistent with the energy efficiency policies emphasized by SCAG's 2020–2045 RTP/SCS. The Project would provide greater proximity to neighborhood services and would be well-served by existing public transportation. The Project also would introduce new office and restaurant uses within an HQTA, which is consistent with numerous policies in the 2020–2045 RTP/SCS related to locating new jobs near transit. In addition, the Project would further reduce VMT through such measures as transit accessibility as estimated by CalEEMod, which would be consistent with the reduction in transportation emission per capita provided in the 2020–2045 RTP/SCS. As the 2020–2045 RTP/SCS is a regional plan which includes the City of Los Angeles, this analysis applies with equal force to the related projects. Related projects would be urban infill projects located near other commercial, retail, and entertainment uses, which would encourage alternative modes of transport reducing vehicle trips.

Although the 2020–2045 RTP/SCS is intended to reduce GHG emissions, the reduction in VMT would also result in reduced transportation fuel consumption. By its very nature, the 2020–2045 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects.

For these reasons, the Project's contribution to cumulative impacts related to the wasteful, inefficient and unnecessary use of transportation fuel would not be cumulatively considerable and, therefore, would be less than significant; and the cumulative impact of the Project's incremental effect and the effects of related projects related to wasteful, inefficient and unnecessary use of transportation fuel would be less than significant.

(iv) 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 be cumulatively considerable and, therefore, would be less than significant; and the cumulative impact of the Project's incremental effect and the effects of related projects related to the wasteful, inefficient, and unnecessary consumption of energy during construction or operation would be less than significant. As such, the cumulative energy impacts associated with the Project and the related projects under Threshold (a) are concluded to be less than significant.

(b) Consistency with State or Local Plans

Related projects within the Project area, as listed in Table III-1 in Section III, Environmental Setting, of this Draft EIR, as well as future development projects, would be required to comply with energy conservation and renewable energy plans and policies

described above, including Title 24, CALGreen Code, and the City of Los Angeles Green Building Code. As related projects would be required to meet the same energy consumption standards, there would be no significant cumulative impacts with regard to consistency with energy conservation plans.

Furthermore, as described above, the Project would be consistent with the policies emphasized by the 2020–2045 RTP/SCS. The Project is within an HQTA and includes office and restaurant uses located near public transit, which would result in a VMT reduction. As discussed in Section IV.D, Greenhouse Gas Emissions, of this Draft EIR, VMT per capita is consistent with OPR's recommended reduction in VMT per capita to meet the State's GHG emission reduction goals. Furthermore, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 34-percent reduction in overall VMT and resultant GHG emissions. It is uncertain whether all related projects would be consistent with the RTP/SCS targets. However, related projects would be urban infill projects, which are located near mass transit and other commercial, retail, and entertainment uses, which would reduce vehicle trips. As a result, related projects would likely achieve a similar reduction in vehicle trips and VMT in comparison to the Project.

For these reasons, the Project's contribution to cumulative impacts related to consistency with adopted energy conservation plans, or State or local energy standards for renewable energy or energy efficiency would not be cumulatively considerable and, therefore, would be less than significant; and the cumulative impact of the Project's incremental effect and effects of related projects related to consistency with adopted energy conservation plans, or State or local energy standards for renewable energy or energy efficiency would be less than significant.

(2) Mitigation Measures

Cumulative impacts related to energy use and conflicts with plans would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance after Mitigation

Cumulative impacts related to energy use and conflicts with plans were determined to be less than significant without mitigation. Therefore, no mitigation measures are required, and the impact level would remain less than significant.