IV. Environmental Impact Analysis

C. Energy

1. Introduction

This section of the Draft EIR analyzes the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section includes a summary of the Project's anticipated energy needs (detailed calculations of which can be found in Appendix E of this Draft EIR), and conservation measures that are included as part of the Project. Information found herein, as well as other aspects of the Project's environmental-related energy impacts, are discussed in greater detail elsewhere in this Draft EIR, including in **Chapter II*, Project Description***, and **Section IV.E, *Greenhouse Gas Emissions***.

This section provides the content and analysis required by Public Resources Code (PRC), Section 21100(b)(3) and described in Appendix F to the CEQA Guidelines.[1] PRC Section 21100(b) and CEQA Guidelines Section 15126.4 require that an EIR identify mitigation measures to minimize a project's significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the CEQA Guidelines states that the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further indicates that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the Project Description, Environmental Setting, and Impact Analysis portions of technical sections, as well as through mitigation measures and alternatives.

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 local levels. As described below, these plans, guidelines, and laws include the following:

- Corporate Average Fuel Economy Standards

[1] 14 California Code of Regulations (CCR), Sections 15000 et seq.

- Senate Bill 1389
- Renewables Portfolio Standards
- California Building Standards
- Assembly Bill 1493
- California Air Resources Board
- California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006
- Sustainable Communities Strategy
- 2020 California Gas Report
- Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy
- LA's Green New Deal (Sustainability City pLAn 2019)
- City of Los Angeles Green Building Code

(1) Federal

(a) Corporate Average Fuel Economy (CAFE) Standards

Established by the United States Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and United States Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The United States 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.[2]

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 six to 23 percent over the 2010 baseline, depending on the vehicle type.[3] USEPA and NHTSA have also adopted the Phase 2 heavy-duty

[2] National Highway Traffic Safety Administration (NHTSA), Corporate Average Fuel Economy, https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy, accessed March 25, 2020.

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

truck standards, which cover model years 2021 through 2027 and require the phase-in of a five to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[4]

(2) State

(a) Senate Bill 1389

Senate Bill (SB) 1389 (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. SB 1389 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]). CEC's 2015 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, the Alternative and Renewable Fuel and Vehicle Technology Program benefits updates, 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.

(b) Renewables Portfolio Standards

The State of California has adopted standards to increase the percentage that retail sellers of electricity, including investor-owned utilities and community choice aggregators, must provide from renewable sources. The standards are referred to as the Renewables Portfolio Standard (RPS) and require retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020.[5]

On September 10, 2018, 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

4 USEPA, Federal Register/Vol. 81, No. 206/Tuesday, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, October 25, 2016.

5 Center for Climate Strategies, Executive Order S-14-08.

(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.[6] Refer to **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR for additional details regarding this regulation.

(c) California Building Standards

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

In 1978, 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.[7]

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

The California Green Building Standards Code (CCR, Title 24, Part 11), commonly referred to as the 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] Recent changes to the CALGreen Code were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicle (EV) chargers and charging and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional EV charging requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification. For non-residential mandatory measures, the number of required EV charging spaces has been revised in its entirety. Refer to **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR for additional details regarding these standards.

6 California Public Utilities Commission (CPUC), RPS Program Overview, 2018, http://www.cpuc.ca.gov/RPS_Overview/, accessed March 25, 2020.

7 California Energy Commission (CEC), 2016 Building Energy Efficiency Standards, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency, accessed March 20, 2020.

8 California Building Standards Commission, Guide to the 2016 California Green Building Standards Code Nonresidential, January 2017.

(d) Assembly Bill 1493

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 greenhouse gas (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 through 2016 and Phase II established standards for model years 2017 through 2025.[9,10] Refer to **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR for additional details regarding this regulation. In September 2019, USEPA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule in the federal register (Federal Register, Vol. 84, No. 188, Friday, September 27, 2019, Rules and Regulations, 51310-51363) that maintains the vehicle miles per gallon standards applicable in model year 2020 for model years 2021 through 2026. In November 2019, California and 23 other states and environmental groups filed a petition for USEPA to reconsider the published rule in United States District Court in Washington. The Court has not yet ruled on the lawsuit.

(e) California Air Resources Board

(i) CARB's 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.[11] The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the Zero-Emissions Vehicle (ZEV) regulations to require manufactures to produce an increasing number of pure ZEV's (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles between 2018 and 2025.

(ii) 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 (CCR, Title 13, Section 2485). The measure applies

9 California Air Resources Board (CARB), Clean Car Standards - Pavley, Assembly Bill 1493, https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley, accessed February 29, 2020.

10 USEPA, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, 2012.

11 CARB, Clean Car Standards – Pavley, Assembly Bill 1493, https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley, accessed February 29, 2020.

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 five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

(iii) Low Carbon Fuel Standard

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

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

The goals of regulations to reduce emissions from in-use heavy duty diesel-fueled vehicles are primarily to reduce public health impacts from diesel emissions; however, compliance with such regulations have shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines.[12]

In 2008, CARB approved the Truck and Bus regulation to reduce nitrogen oxide (NO_X), respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) emissions from existing diesel vehicles operating in California (CCR, Title 13, Section 2025). The phased regulation aims to reduce emissions by requiring installation of diesel soot filters and encouraging the retirement, replacement, or retrofit of older engines with newer emission-controlled models. The phasing of this regulation has full implementation by 2023.

CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007

[12] For Construction Pros, Cummins Tier-4-Final Field Test Showed 10% Lower Fuel Consumption, March 5, 2014, https://www.forconstructionpros.com/equipment/fleet-maintenance/diesel-engines/press-release/11323000/cummins-inc-cummins-tier4final-field-test-showed-10-lower-fuel-consumption, accessed March 25, 2020.

aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (CCR, Title 13, Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

(f) California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted AB 32 (codified in California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. Under AB 32, CARB has the primary responsibility for reducing the State's GHG emissions; however, AB 32 also tasked the CEC and the CPUC with providing information, analysis, and recommendations to CARB regarding strategies to reduce GHG emissions in the energy sector.

In 2016, the California State Legislature adopted SB 32 and its companion bill AB 197; both were signed by Governor Brown. SB 32 and AB 197 amend HSC Division 25.5 and establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of the State's climate policies reach into disadvantaged communities. Refer to **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR for additional details regarding these regulations.

(g) Sustainable Communities Strategy

Adopted by the State on September 30, 2008, the Sustainable Communities and Climate Protection Act of 2008, or SB 375, establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Pursuant to SB 375, on April 7, 2016, the Southern California Association of Governments (SCAG) adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS), which achieves and exceeds the GHG emission-reduction targets set by CARB by demonstrating an eight percent reduction in vehicular emissions by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 as compared to the 2005 level on a per capita basis.

In addition, in September 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), which is an update to the previous 2016-2040RTP/SCS. Using growth forecasts and economic trends, the 2020-2045 RTP/SCS provides a vision for transportation throughout the region for the next 25 years. The 2020-2045 RTP/SCS successfully achieves and exceeds the GHG emission-reduction targets set by CARB. Compliance with and implementation of 2020-2045 RTP/SCS policies and strategies would have the co-benefits of reducing per capita vehicle miles traveled

(VMT) and corresponding decreases in per capita transportation-related fuel consumption.

Refer to **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR for additional details regarding the 2020-2045 RTP/SCS.

(h) 2020 California Gas Report

In compliance with the CPUC Decision 95-01-039, the 2020 California Gas Report has been prepared by the California Gas and Electric Utilities, including the Southern California Gas Company (SoCalGas), which is the natural gas provider for the Project, along with five other California utility providers. The 2020 California Gas Report presents a forecast of natural gas supplies and requirements for California through the year 2035. This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. Overall, SoCalGas predicts a decrease in natural gas demand in future years due to a decrease in per capita usage, energy efficiency policies, and the State's transition to renewable energy displacing fossil fuels including natural gas.[13]

(3) Regional

(a) Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy

The Project Site is located within the planning jurisdiction of SCAG, as is all of Los Angeles. Pursuant to SB 375, SCAG prepared its first-ever SCS that was included in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (2012-2035 RTP/SCS), which was adopted by SCAG in April 2012. The goals and policies of that SCS demonstrated a reduction in per capita VMT (and a corresponding decrease in per capita transportation-related fuel consumption) and focused on transportation and land use planning strategies that included encouraging infill projects, locating residents closer to where they work and play, and designing communities with access to high quality transit services.

SCAG has since adopted the 2020-2045 RTP/SCS.[14] The goals and policies of the 2020-2045 RTP/SCS build from the previous 2012-2035 RTP/SCS, and 2016-2040 RTP/SCS and provide updated strategies for reducing per capita VMT. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and levels of education, recreation and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations

[13] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 99.

[14] Southern California Association of Governments (SCAG), Connect SoCal: 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, September 2020.

and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative-fueled vehicles. The 2020-2045 RTP/SCS continues the prioritization of High Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 miles of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. Local jurisdictions are encouraged to focus housing and employment growth within HQTAs to reduce VMT. The Project Site is located within an HQTA as designated by the 2020-2045 RTP/SCS. Refer to **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR for additional details regarding the 2020-2045 RTP/SCS.

(4) Local

(a) LA's Green New Deal (Sustainability City pLAn 2019)

In April 2019, Mayor Eric Garcetti released the Green New Deal. Rather than an adopted plan, the Green New Deal is a mayoral initiative that consists of a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.[15] L.A.'s Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015. It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

While not a plan adopted solely to reduce GHG emissions, 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 by 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 thousand British thermal unit (kBtu) / square feet 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.

[15] City of Los Angeles, L.A. Green New Deal, 2019.

- 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.
- Increase the percentage of electric and zero emission vehicles 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 three degrees by 2035.
- Ensure proportion of Angelenos living within 1/2 mile of a park or open space at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) City of Los Angeles Green Building Code

On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the "Los Angeles Green Building Code," by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the CALGreen Code (CCR, Title 24, Part 11). Projects filed on or after January 1, 2017, must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings. As of the writing of this Draft EIR, while the 2019 Title 24 standards became effective on January 1, 2020, the City of Los Angeles has not adopted the latest standards. However, the analysis below reflects consistency with the 2019 Title 24 standards assuming they will be adopted by the City of Los Angeles. Refer to **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR for additional details.

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, for 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 one hour would be 100 Wh. If ten 100 W bulbs were on for one hour, the energy required would be 1,000 Wh or one 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 electrical service throughout the City, including the Project Site, and many areas of the Owens Valley, serving approximately four million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electrical service 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 Resource Plan*, LADWP has a net dependable generation capacity greater than 7,531 MW.[16] On August 31, 2017, LADWP's power system experienced a record instantaneous peak demand of 6,502 MW.[17] Approximately 32 percent of LADWP's 2018 electricity purchases were from renewable sources, which is similar to the 31 percent Statewide percentage of electricity purchases from

[16] Los Angeles Department of Water and Power (LADWP), 2017 Power Strategic Long-Term Plan, December 31, 2017, page 17.

[17] LADWP, Facts & Figures, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=xk0dbq6vu_4&_afrLoop=865109299538310, accessed March 24, 2020.

renewable sources.[18] The annual electricity sale to customers for the 2017-2018 fiscal year was approximately 22,383,000 MWh.[19] The existing Site's current annual electricity demand is approximately 174 MWh.[20]

(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 and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of the State's total energy requirements. Natural gas is measured in terms of cubic feet (cf). On a utility scale, natural gas usage is measured in thousand cf (Mcf) or million cf (MMcf).

Natural gas is provided to the Project Site by SoCalGas, which is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.6 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 United States/Mexican border.[21]

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.[22] The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply supplements traditional, southwestern United States gas sources for SoCalGas, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.[23] Natural gas supply available to SoCalGas from California sources averaged 2,409 MMcf per day in 2019 (the most recent year for which data are available).[24] The existing site's current annual natural gas demand is approximately 79,750 cf.[25]

18 LADWP, Power Content Label, July 2019.
19 LADWP, 2018 Retail Electric Sales and Demand Forecast, November 2018.
20 See calculations provided in Appendix E of this Draft EIR.
21 Southern California Gas Company (SoCalGas), Company Profile, https://www.socalgas.com/about-us/company-profile, accessed March 2020.
22 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.
23 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111-112.
24 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.
25 See calculations provided in Appendix E of this Draft EIR.

(3) Transportation Energy

According to the CEC, transportation accounted for nearly 41.1 percent of total energy consumption in California during 2017.[26] In 2018, California consumed 15.5 billion gallons of gasoline and 3.7 billion gallons of diesel.[27] Petroleum-based fuels currently account for more than 90 percent of California's transportation fuel use.[28] 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. Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline over the next 10 years, and there will be an increase in the use of alternative fuels.[29] According to fuel sales data from the CEC, fuel consumption in Los Angeles County was approximately 3.64 billion gallons of gasoline and 0.53 billion gallons of diesel in 2018.[30] The existing site's annual demand for gasoline is approximately 28,645 gallons and for diesel is approximately 2,779 gallons.[31]

(4) Project Site

The Project Site is presently developed with a 5,738 square-foot vacant educational building, an 8,225 square-foot Big 5 Sporting Goods store, and associated surface parking.[32] These existing uses would be demolished and removed to allow for development of the Project. Energy demand from the existing uses is incorporated into this analysis to determine the Project's net (Project minus existing) energy consumption.

[26] CEC, 2019 Integrated Energy Policy Report, 2019, page 42. Based on the transportation sector accounting for 41.1 percent of the State GHG emissions in 2017.

[27] CEC, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2020, https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html, accessed March 24, 2020. Diesel is adjusted to account for retail (48 percent) and non-retail (52 percent) diesel sales.

[28] CEC, 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, May 2016.

[29] CEC, 2015 Integrated Energy Policy Report, docketed June 29, 2016, page 113.

[30] CEC, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2020, https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html, accessed March 24, 2020. Diesel is adjusted to account for retail (48 percent) and non-retail (52 percent) diesel sales.

[31] See calculations provided in Appendix E of this Draft EIR.

[32] The 5,738 square foot vacant building previously housed the Montessori Children's World School. As the building was vacated October 2018, credit for this use was included as part of the baseline under CEQA as this reflects the amount of floor area that was in active use during the past two years.

3. Project Impacts

a) Thresholds of Significance

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

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

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

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

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

For this analysis, the Appendix G Thresholds and 2006 L.A. CEQA Thresholds Guide are relied upon. The analysis utilizes factors and considerations identified in Appendix G and Appendix F of the CEQA Guidelines, as appropriate, to assist in answering the Appendix G questions. The factors to evaluate energy impacts under Threshold (a) include:

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

In accordance with Appendix G and Appendix F of the CEQA Guidelines, the following factors are utilized, as appropriate, to evaluate impacts under Threshold (b):

- The degree to which the project complies with existing energy standards;
- The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements; and
- Whether the project conflicts with adopted energy conservation plans.

b) Methodology

This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. Specific analysis methodologies are discussed below. Calculations are provided in Appendix E of this Draft EIR, and are based on the same assumptions as are used in **Section IV.A, *Air Quality***, and **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR.

(1) Construction

Construction energy impacts were assessed based on the incremental change in energy compared to baseline conditions. Under CEQA, the baseline environmental setting for an EIR is established when the NOP for the EIR is published, which is January 14, 2020.

Project construction is estimated to start in 2021, but may commence at a later date. If, for various site planning, financial, or other reasons, the onset of construction is delayed to a later date than assumed in the modeling analysis, construction impacts would be similar to or less than those analyzed, because a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is because State regulations require construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time. As a result, should the Project commence construction on a later date than modeled in this impact analysis, energy conservation and infrastructure impacts would be less than the impacts disclosed herein. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the Project Site. Construction activities can vary substantially from day-to-day, depending on the specific type of construction activity and the number of workers and vendors traveling to the Project Site. This analysis considers these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources. This analysis is based on estimated maximum construction activities.

(a) Electricity

Project construction electricity was estimated for the operation of a temporary construction office, construction equipment that would use electricity as an alternative to diesel fuel, and water usage from dust control. Project construction electricity of the construction office (assumed an approximately 1,000 square-foot trailer) was modelled using the California Emissions Estimator Model (CalEEMod), which is a State-approved emissions model used for the Project's air quality and GHG emissions assessment. In addition to estimating air emissions, CalEEMod provides for estimation of annual project electricity, natural gas, and water use.[33] Electricity demand by construction equipment was estimated using default horsepower and load factors from CalEEMod and hours of operation per day provided by the Applicant. The total horsepower-hours were then converted to kWh using a standard conversion factor. The electricity demand of the Project Site's existing uses was then subtracted from the construction electricity use to determine the net electricity use during Project construction.

(b) Natural Gas

Natural gas is not expected to be consumed in large quantities during Project construction. Therefore, natural gas associated with construction activities was not calculated.[34]

(c) Transportation Energy

Energy use during construction is forecasted by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). The energy usage required for Project construction was estimated based on information provided by the Project's contractor representative, which includes the number and type of construction equipment that would be used during Project construction, the estimated equipment operating hours for off-road equipment or VMT for on-road vehicles, and the estimated duration of construction activities. Energy for construction worker commuting trips was estimated based on the expected number of workers for the various phases of construction and the estimated VMT.[35]

Construction equipment would primarily be diesel-fueled (with the exception of construction worker commute vehicles, which would primarily be gasoline-fueled). For purposes of this assessment, it is conservatively assumed that heavy-duty

[33] California Air Pollution Control Officers Association (CAPCOA), California Emissions Estimator Model, 2017, http://caleemod.com/, accessed March 24, 2020.

[34] In general, natural gas would not be expected to be used and this energy analysis assumes heavy-duty construction equipment is diesel-fueled, as is typically the case. However, natural gas-fueled heavy-duty construction equipment could be used to replace some diesel-fueled heavy-duty construction equipment. If this does occur, diesel fuel demand would be slightly reduced and replaced by a small amount of temporary natural gas demand. This would not substantially affect the energy analysis or conclusions provided herein.

[35] Construction VMT is calculated by multiplying estimated worker, vendor, and haul truck trips by CalEEMod default trip distances.

construction equipment and haul trucks would be diesel-fueled. This represents a worst-case scenario to cover maximum potential energy use during construction. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB off-road vehicle (OFFROAD) emissions model, which is a State-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB Emission Factors (EMFAC) emissions model, which is a State-approved model for estimating emissions on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into CalEEMod. Diesel and gasoline fuel use from construction were then compared to the County of Los Angeles' total annual diesel and gasoline fuel use. See Appendix E of this Draft EIR for detailed fuel consumption calculations.

(2) Operation

Project operational energy impacts were assessed based on the increase in energy demand compared to existing conditions. Under CEQA, the existing environmental setting for an EIR is established at the time the NOP was published for the EIR, which is January 14, 2020.

Within the CalEEMod software, building electricity and natural gas usage rates for the existing site uses were adjusted to account for prior Title 24 Building Energy Efficiency Standards for the existing uses.[36] The Project's building electricity and natural gas usage rates were adjusted to account for the current Title 24 Building Energy Efficiency Standard. As stated above, the net change in operational energy demand is based on the difference between the existing Project Site energy demand and the energy demand of the Project at buildout. This analysis is based on estimated maximum operational activities for the Project.

(a) Electricity

The Project's estimated electricity demand was analyzed relative to LADWP's existing and planned energy supplies in 2023 (i.e., the Project buildout year) to determine if the utility would be able to meet the Project's energy demands.[37] Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas from Project operation was calculated using demand factors based on the 2019 Title 24 standards. Energy usage from water demand (e.g., electricity used to supply, convey, treat, and distribute) was estimated based on new buildings and facilities compared to the existing uses.

[36] CAPCOA, CalEEMod User's Guide For CalEEMod Version 2016.3.2, Appendix E, Section 5, September 2016. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

[37] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, Appendix A, Table A-1.

(b) Natural Gas

Like for construction, the Project's estimated natural gas demand was analyzed relative to SoCalGas' existing and planned energy supplies in 2023 (i.e., the Project buildout year) to determine if the utility would be able to meet the Project's energy demands.[38] Furthermore, natural gas demand generated by the existing site was calculated using demand factors provided in CalEEMod and subtracted from the Project's natural gas demand to obtain the net annual natural gas demand. Natural gas demand for the Project would be generated mainly by building heating and appliances.

(c) Transportation Energy

Energy impacts associated with transportation during Project operation were also assessed. Energy demand due to the transportation of employees and visitors to and from the Project Site was estimated based on the predicted number of trips to and from the Project Site and the estimated VMT, calculated using the LADOT's VMT Calculator and obtained from the Project's Transportation Assessment prepared by Gibson Transportation Consulting, Inc., which is included in Appendix J-1 of this Draft EIR.[39] The assessment also includes a discussion of the Project's land use transportation characteristics that would minimize the amount of transportation energy usage during operations. These features and characteristics are also discussed in **Chapter II, *Project Description***, **Section IV.A, *Air Quality***, and **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR.

Based on the Project's annual operational VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon in EMFAC2017. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for the Project Site area in the Air Basin. Supporting calculations are provided in Appendix E of this Draft EIR.

c) Project Design Features

No specific project design features are proposed with regard to energy.

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?

[38] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 142-147.

[39] Gibson Transportation Consulting, Inc., Transportation Assessment for the 656 San Vicente Medical Office Project, November 2020. Provided in Appendix J-1 of this Draft EIR.

(1) Impact Analysis

(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.

(i) Construction

During Project construction, energy would be consumed in the form of electricity on a limited basis for powering lights, electronic equipment, or other construction activities necessitating electrical power. 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 workers 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).

Table IV.C-1, *Summary of Energy Use During Project Construction*, provides a summary of the annual average electricity, gasoline fuel, and diesel fuel estimated to be consumed during Project construction. Each of these is discussed and analyzed in greater detail in the sections below.

(a) Electricity

During construction of the Project, electricity would be consumed, on a limited basis, to power lighting, electric equipment, and supply and convey water for dust control. 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.

As shown in Table IV.C-1, annual average construction electricity usage would be approximately 391 MWh. The electricity demand would be within the supply and infrastructure capabilities of LADWP (forecasted to be 26,245 GWh net energy for load in the 2023-2024 fiscal year).[40,41] 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. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represent a small fraction of the Project's net annual operational electricity. Furthermore, the electricity used for off-road light construction equipment would have the co-benefit of reducing construction-related air pollutant and GHG emissions from more traditional construction-related energy in the form of diesel fuel.

[40] LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.
[41] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, Appendix A, Table A-1.

TABLE IV.C-1
SUMMARY OF ENERGY USE DURING PROJECT CONSTRUCTION [a]

Energy Type	Total Quantity [b]	Annual Average Quantity During Construction [b]
Electricity		
Off-Road Equipment	1,063 MWh	377 MWh
Construction Office	37 MWh	13 MWh
Electricity from Water (Dust Control)	2 MWh	<1 MWh
Total Electricity	1,102 MWh	**391 MWh**
Gasoline		
On-Road Construction Equipment	172,298 gallons	61,057 gallons
Total Gasoline	**172,298 gallons**	**61,057 gallons**
Diesel		
On-Road Construction Equipment	29,712 gallons	10,529 gallons
Off-Road Construction Equipment	219,874 gallons	77,917 gallons
Total Diesel	**249,586 gallons**	**88,446 gallons**

MWh = megawatt-hours; N/A = not applicable

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

[b] Totals may not add up due to rounding of decimals.

SOURCE: ESA, 2020; CalEEMod, 2020; EMFAC2017.

(b) Natural Gas

As previously stated above, 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 expected demand generated by construction of the Project.

(c) Transportation Energy

Table IV.C-1 reports the estimated amount of petroleum-based transportation energy that could potentially be consumed during Project construction based on the conservative set of assumptions provided in Appendix E of this Draft EIR. During Project construction, on- and off-road vehicles would consume an estimated annual average of approximately 61,057 gallons of gasoline fuel and approximately 88,446 gallons of diesel over the approximately 36 months of construction. For comparison purposes only, and not for the purpose of determining significance, the fuel usage during Project construction would represent approximately 0.002 percent of the 2018 annual on-road gasoline-related energy consumption and 0.02 percent of the

2018 annual diesel-related energy consumption in Los Angeles County, as shown in Appendix E of this Draft EIR.[42]

Construction of the Project would utilize fuel-efficient trucks and equipment consistent with federal and State regulations, such as fuel efficiency regulations in accordance with CARB's Pavley Phase I and II standards (at a minimum through the model year 2020 standards depending on the outcome of the SAFE Vehicles Rule court challenge), the anti-idling regulation in accordance with CCR, Title 13, Section 2485, and fuel requirements in accordance with CCR, Title 17, Section 93115, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation.[43] As such, the Project would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from the use of more fuel-efficient engines. In addition, the Project would divert mixed construction and demolition debris to City-certified construction and demolition waste processors using City-certified waste haulers, consistent with the Los Angeles City Council approved Ordinance No. 181,519 (LAMC Chapter VI, Article 6, Section 66.32-66.32.5 (Purpose; Solid Waste Hauler Permit Requirements; AB 939 Compliance Fees; Violations, Penalties, and Permit Suspension and Revocation; Compliance Permit Terms and Conditions; Indemnifications, respectively)). Diversion of mixed construction and demolition debris would reduce truck trips to landfills, which are typically located some distance away from City centers, and increase the amount of waste recovered (e.g., recycled, reused, etc.) at material recovery facilities, thereby further reducing transportation fuel consumption.

Based on the analysis above, construction would utilize energy only for necessary on-site activities and to transport construction materials, excavated fill, and demolition debris to and from the Project Site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and, thus, reduce the Project's construction-related energy use.

(d) 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

[42] CEC, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2020, https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html, accessed March 24, 2020.

[43] CARB, Final Regulation Order, Regulation for In-Use Off-Road Diesel-Fueled Fleets, 2010.

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 are 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.

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, HVAC; refrigeration; lighting; and the use of electronics, equipment, and appliances. 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, *Summary of Annual Net New Energy Use During Project Operation***, the Project's annual net new energy demand would be approximately 2,337 MWh of electricity, 2,548,788 cf of natural gas, 327,277 gallons of gasoline, and 34,620 gallons of diesel.

(a) Electricity

With compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, at buildout, the Project would result in a projected net increase in the on-site annual demand for electricity totaling approximately 2,337 MWh for the Project, as shown in Table IV.C-2.

LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. With the passage of SB 100 in September 2018, LADWP will be required to update its long-term plans to demonstrate compliance including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030, and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. LADWP's current sources include wind, solar, and geothermal sources. Approximately 32 percent of LADWP's 2018 electricity purchases were from renewable sources, which is similar to the 31 percent Statewide percentage of electricity purchases from renewable sources, and represent the available off-site renewable sources of energy that would meet the Project's energy demand.[44] LADWP generates its load forecast to account for regional economic and population growth based on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, plug-in electric vehicle (PEV) projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar

[44] LADWP, Power Content Label, July 2019.

Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.[45]

TABLE IV.C-2
SUMMARY OF ANNUAL NET NEW ENERGY USE DURING PROJECT OPERATION [a]

Energy Type	Annual Quantity [b,c]
Electricity	
Existing Site	(174 MWh)
Project	
Building Energy	2,191 MWh
Water Conveyance and Treatment	205 MWh
Electric Vehicle Charging	114 MWh
Project Subtotal	2,511 MWh
Total Net Electricity	**2,337 MWh**
Natural Gas	
Existing Site	(105,320 cf)
Project	
Building Energy	2,287,153 cf
Mobile Sources	366,955 cf
Project Subtotal	2,654,108 cf
Total Net Natural Gas	**2,548,788 cf**
Transportation	
Existing Site	
Gasoline	(28,645 gallons)
Diesel	(2,779 gallons)
Project	
Gasoline	355,922 gallons
Diesel	37,399 gallons
Total Net Transportation – Gasoline	**327,277 gallons**
Total Net Transportation – Diesel	**34,620 gallons**

MWh = megawatt-hours
cf = cubic feet
[a] Detailed calculations are provided in Appendix E of this Draft EIR.
[b] Totals may not add up due to rounding of decimals.
[c] Negative values are denoted using parentheses.
SOURCE: ESA, 2020.

[45] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page 70.

In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and accounts for anticipated economic and population growth.[46] LADWP's 2017 Power Strategic Long-Term Resource Plan forecasts that its net energy for load in the 2023-2024 fiscal year (the Project's buildout year) will be approximately 26,245 GWh of electricity.[47,48] The Project-related net increase in annual electricity consumption of 2,337 MWh for the Project would represent approximately 0.01 percent of LADWP's projected sales in 2023 and be within LADWP's projected electricity supplies.

(b) Natural Gas

With compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, at buildout, the Project is projected to generate a net increase in the on-site annual demand for natural gas totaling approximately 2,548,788 cf, as shown in Table IV.C-2.

SoCalGas accounts for anticipated regional demand based on various factors including growth in employment by economic sector, growth in housing and population, and increasingly demanding State goals for reducing GHG emissions. SoCalGas accounts for an increase in employment and housing between 2018 and 2035. The Project would add jobs within the SoCalGas region and would be consistent with the growth projections set forth in the 2020 California Gas Report.[49]

Based on the 2020 California Gas Report, the California Energy and Electric Utilities, a collective of California utility companies, estimates natural gas supplies within SoCalGas' planning area will be approximately 1,253,775,000,000 cf in 2023 (the Project's buildout year).[50] As stated above, the Project's annual net increase in demand for natural gas is estimated to be approximately 2,548,788 cf. Therefore, the Project would account for approximately 0.0002 percent of the 2023 forecasted annual consumption in SoCalGas' planning area and would fall within SoCalGas' projected consumption for the area and would be consistent with SoCalGas' anticipated regional demand from population or economic growth.

(c) Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. The Project Site's commercial uses would be conveniently located to nearby shopping

46 LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page 67.
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 Resource Plan, December 31, 2017, page 14.
49 California Gas and Electric Utilities, 2020 California Gas Report, 2020, pages 94-96.
50 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 144.

areas, including restaurant, office, retail, entertainment, and residential uses, and the Project Site itself is located in a designated high-quality transit area (HQTA) that is close to multiple transit options, affording all of the Project's uses broad mobility without the need to use passenger vehicles.[51] A majority of the vehicle fleet that would be used by Project patrons and employees would consist of light-duty automobiles and light-duty trucks, which are subject to fuel efficiency standards. Annual vehicle trips for the Project were estimated using trip rates provided in the Project's Transportation Assessment included in Appendix J-1 of this Draft EIR.[52]

As reported in Table IV.C-2, the Project's estimated annual net increase in petroleum-based fuel usage would be approximately 327,277 gallons of gasoline and 34,620 gallons of diesel for the Project. Based on the CEC's *California Annual Retail Fuel Outlet Report*, Los Angeles County consumed 3,169,000,000 gallons of gasoline and 475,000,000 gallons of diesel in 2018.[53] The Project would account for 0.05 percent of County gasoline consumption and 0.03 percent of County diesel consumption based on the available County fuel sales data for the year 2018.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[54] The Project would comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards, which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with CAFE standards.

The Project would support Statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles for the reasons provided below. As discussed in detail in **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR, the Project's design and its characteristics would be consistent with and would not conflict with the goals of the SCAG 2020-2045 RTP/SCS. The Project's mixed-use design and its increase in density, which is located on an infill site within an TPA and in proximity to existing high-quality transit including the future Wilshire/La Cienega Metro D (Purple) Line Station in 2023 and multiple Metro bus routes; its proximity to existing restaurant, office, retail, entertainment, and residential land uses; and its highly walkable

[51] SCAG, Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, September 2020, page 50.

[52] Gibson Transportation Consulting, Inc., Transportation Assessment for the 656 San Vicente Medical Office Project, March 2020. Provided in Appendix J-1 of this Draft EIR.

[53] CEC, California Annual Retail Fuel Outlet Report, 2018, https://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html, accessed March 24, 2020.

[54] BP Global, Oil, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html, accessed March 24, 2020.

environment support the conclusion that that the Project has been properly designed and located so that its development would achieve a reduction in VMT greater than the regional and Statewide averages (refer to the detailed VMT analysis provided in **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR). Additionally, the Project design would provide for the installation of the conduit and panel capacity to accommodate future EV charging stations for a minimum of 30 percent and 10 percent EV-installed spaces pursuant to the CALGreen Code and LAMC, of the total proposed number of parking spaces.

As the above discussion demonstrates, the Project would minimize operational transportation fuel demand consistent with and not in conflict with State, regional, and City goals.

(iii) Summary of Energy Requirements and Energy Use Efficiencies

The Project's annual net new energy demand during construction would be approximately 391 MWh of electricity, 61,057 gallons of gasoline, and 88,446 gallons of diesel. 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. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represent a small fraction of the Project's net annual operational electricity. Natural gas would not be used during construction. The Project would comply with Pavley standards, the anti-idling regulation in accordance with CCR, Title 13, Section 2485, and fuel requirements in accordance with CCR, Title 17, Section 93115, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation.

The Project's operational annual net new energy demand would be approximately 2,337 MWh of electricity, 2,548,788 cf of natural gas, 327,277 gallons of gasoline, and 34,620 gallons of diesel. The Project would comply with applicable Title 24 and CALGreen Code standards aimed at reducing electricity and natural gas consumption. Further, the Project would be subject to Pavley standards, CAFE standards, and LCFS. The Project is located in an HQTA and near a diverse set of land uses that would minimize travel and result in less use of transportation fuels.

(b) The Effects of the Project on Local and Regional Energy Supplies and on Requirements for Additional Capacity.

(i) Construction

As discussed above, during construction of the Project, electricity would be consumed, on a limited basis, to power lighting, electric equipment, and supply

and convey water for dust control. 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. 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. 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. As stated above, transportation fuel usage during Project construction activities would represent approximately 0.002 percent of gasoline usage and 0.02 percent of diesel usage within Los Angeles County, respectively. Construction transportation energy would be provided by existing retail service stations and from existing mobile fuel services that are typically needed to deliver fuel to a construction site to refuel the off-road construction equipment at the Project Site and no new facilities would be required. As energy consumption during construction would not be substantial (compared to existing and projected Countywide energy consumption) and is consistent with existing and planned supplies, the Project would not materially affect the local and/or regional energy supplies and would not require additional capacity.

(ii) Operation

As stated above, based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its net energy for load in the 2023-2024 fiscal year (the Project's buildout year) will be 26,245 GWh of electricity.[55,56] The Project-related net increase in annual electricity consumption of 2,452 MWh/year would represent approximately 0.01 percent of LADWP's projected sales for the 2023-2024 fiscal year and would be consistent with LADWP's anticipated regional demand from population or economic growth. Based on these factors, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to serve the Project's electricity demand.

As stated above, the Project's estimated annual net increase in demand for natural gas would be approximately 2,654,108 cf. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates that natural gas consumption within SoCalGas' planning area will be approximately 1,253,775,000,000 cf in 2023 (the Project's buildout year).[57] This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. The Project would account for approximately 0.0002 percent of the 2023 forecasted consumption in SoCalGas' planning area and would fall within

[55] LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.
[56] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, Appendix A, Table A-1.
[57] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 144.

SoCalGas' projected consumption and supplies for the area. As such, SoCalGas' existing and planned natural gas capacity and supplies would be sufficient to serve the Project's demand.

As stated above, at buildout, the Project would consume a net increase of 327,277 gallons of gasoline and between 34,620 gallons of diesel per year. For comparison purposes, the transportation-related fuel usage for the Project would represent between approximately 0.05 percent of the 2018 annual on-road gasoline- and between 0.03 percent of the 2018 annual on-road diesel-related energy consumption in Los Angeles County (based on the available County fuel sales data). Detailed calculations are shown in in Appendix E of this Draft EIR. Operational transportation energy would be provided by existing retail service stations and no new retail service stations would be required. Transportation fuels (gasoline and diesel) are produced from crude oil, which can be produced from domestic supplies or imported from various regions around the world and, based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[58] As such, existing and planned transportation fuel supplies would be sufficient to serve the Project's demand.

Given that energy consumption during operation would be relatively negligible, electricity consumption during operation would be included in LADWP's total load growth of the City's power system, SoCalGas' existing and planned natural gas capacity and supplies would be sufficient to serve the Project's operational natural gas demand, and given that the Project's operational transportation energy would be provided by existing retail service stations such that no new retail service stations would be expected to be required, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.

(c) The Effects of the Project on Peak and Base Period Demands for Electricity and Other Forms of Energy

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of the LADWP's power grid and base load conditions and would be consistent with expected levels of electricity demand. 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] LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next 10 years

[58] BP Global, Oil, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html, accessed March 24, 2020.

[59] LADWP, 2017 Retail Electric Sales and Demand Forecast, September 15, 2017, page 6.

(approximately 30 MW per year).[60] Based on LADWP estimates for 2023-2024 (closest forecasted year to first Project operational year), the base case peak demand for the power grid is 5,976 MW.[61] Under peak conditions, the Project would consume a net increase of 2,452 MWh on an annual basis which, assuming 12 hours of active electricity demand per day, would be equivalent to between approximately 0.5 MW (peak demand assuming 4,380 hours per year of active electricity demand).[62] In comparison to the LADWP power grid base peak load of 5,976 MW for 2023-2024, based on the assumption above, the Project would represent approximately 0.01 percent of the LADWP base peak load conditions and, therefore, would not create any new peak demand impacts that are inconsistent with LADWP demand projections.[63] Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid. As such, the Project's electrical consumption during operational activities would have a negligible effect on peak load conditions of the power grid and is consistent with existing and planned demand.

(d) 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 2017 Power Strategic Long-Term Resource Plan identifies adequate energy resources to support future generation capacity, and, as discussed above, LADWP's existing and planned electricity capacity and supplies would be sufficient to serve the Project's electricity demand.[64] As discussed above in **Subsection IV.C.2.a), *Regulatory Framework***, SB 100, adopted on September 2018, increased the previously required procurement of California's electricity to 60 percent by December 31, 2030 and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. Accordingly, LADWP is required to procure at least 60 percent of its energy portfolio from renewable sources by 2030. The current sources of LADWP's renewable energy include wind, solar, and geothermal sources. Approximately 32 percent of LADWP's 2018 electricity purchases were from renewable sources.[65] Prior to the adoption of SB 100 LADWP committed to

[60] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page 74.

[61] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, Appendix A, Table A-1.

[62] Calculated as follows: 27,837,773 kWh / 4,380 hours = 6,356 kW and 27,883,973 kWh / 4,380 hours = 6,366 kW.

[63] Calculated as follows: 6,356 kW / 6,076,000 kW = 0.1046 percent and 6,366 kW / 6,076,000 kW = 0.1048 percent.

[64] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page ES-25. "the 2017 SLTRP outlines an aggressive strategy for LADWP accomplish its goals, comply with regulatory mandates, and provide sufficient resources over the next 20 years given the information presently available."

[65] LADWP, Power Content Label, July 2019.

providing an increasing percentage of its energy portfolio from renewable sources so as to exceed the RPS requirements, by increasing to 50 percent by 2025 (five years before the 2030 requirement), 55 percent by 2030, and 65 percent by 2036.[66] With the passage of SB 100 in September 2018, LADWP will be required to update its long-term plans to demonstrate compliance including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030 and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. The Project would not conflict with LADWP's ability to procure the required amount of renewable energy.

With regard to on-site renewable energy sources, the Project would meet the applicable requirements of the Los Angeles Green Building Code and the CALGreen Code, including for building rooftops to be solar-ready so that of on-site solar photovoltaic or solar water heating systems could be installed in the future. Due to the Project Site's location, other types of on-site renewable energy sources would not be feasible as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, fuel cells, landfill gas, methane, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Additionally, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.[67] Therefore, the Project would support renewable energy.

As discussed above, natural gas supplied to the Southern California area is mainly sourced from out-of-state with a small portion originating in California. According to the United States Energy Information Administration (EIA), the United States currently has approximately 90 years of natural gas reserves based on 2016 consumption.[68] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years.[69] Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

As stated earlier in the discussion under Threshold (a), transportation fuels (gasoline and diesel) are produced from crude oil, which can be provided domestically or imported from various regions around the world. Based on current

66 LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page ES-3.

67 Office of Energy Efficiency and Renewable Energy, Wind Energy in California, 2019, https://windexchange.energy.gov/maps-data/12, accessed March 25, 2020.

68 United States Energy Information Administration (EIA), How much natural gas does the United States have, and how long will it last?, last updated February 4, 2020, https://www.eia.gov/tools/faqs/faq.php?id=58&t=8.

69 CEC, Tracking Progress, 2017.

proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[70] Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

Given the evidence presented above, the Project would minimize construction and operational energy and transportation fuel demand to the extent feasible and would not substantially impact energy resources.

(e) The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

As discussed in **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR, the SCAG 2020-2045 RTP/SCS presents the transportation vision for the region through the year 2040 and provides a long-term investment framework for addressing the region's transportation and related challenges. The 2020-2045 RTP/SCS seeks to implement strategies that "alleviates development pressure in sensitive resource areas by promoting compact, focused infill development in established communities with access to high-quality transportation."[71] The 2020-2045 RTP/SCS includestransportation network improvements and more compact, infill, walkable and mixed-use development strategies to accommodate new region's growth would be encouraged to accommodate increases in population, households, employment, and travel demand."[72] Consistent with SCAG's 2020-2045 RTP/SCS alignment of transportation, land use, and housing strategies, the Project would accommodate increases in population, households, employment, and travel demand. As discussed below, the Project Site is an infill location close to jobs, housing, shopping and entertainment uses and in close proximity to existing public transit stops, which would result in reduced VMT, as compared to a project of similar size and land uses at a location without close and walkable access to off-site destinations and public transit stops. As shown in Exhibit 3.8 of the SCAG 2020-2045 RTP/SCS, the Project Site is also located within a HQTA, which SCAG defines as "areas within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours".[73] Moreover, the Project would be located within one mile of public transportation, including five existing Metro bus routes (30/330, 20, 720, 728 and 705) and within 1,500 feet of the future Wilshire/La Cienega Metro D (Purple) Line Station. The closest Metro bus stop is located at the intersection of South San Vicente Boulevard and Wilshire Boulevard,

[70] BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html, accessed March 24, 2020.

[71] SCAG, Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, September 2020, page 51.

[72] SCAG, Program Environmental Impact Report – 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy, September 2020, page 3.8-62.

[73] SCAG, Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, September 2020, page 91.

approximately 200 feet southeast of the Project Site. The closest existing Metro light rail station is of approximately 3.5 miles from the Project Site; however, the future Wilshire/La Cienega Metro D (Purple) Line Station would be operational in 2023 at the corner of Wilshire Boulevard and La Cienega Boulevard, would be approximately 0.25 miles to the west of the Project Site. This new transit infrastructure would increase the available capacity for transit riders to utilize from the Project Site.

The 2020-2045 RTP/SCS encourages increasing the density of development with mixed use projects within HQTAs, to reduce VMT and trips.[74] The Project would be consistent with and would not conflict with SCAG's land use types for the area and would encourage the use of alternative modes of transportation, which could result in a reduction in overall VMT compared to regional and Statewide averages (refer to the detailed VMT analysis provided in **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR).

The California Air Pollution Control Officers Association (CAPCOA) has provided guidance on mitigating or reducing emissions from land use development projects within its guidance document titled *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for recommended GHG reduction strategies.[75] The Project would be located in an area which includes a mix of uses and amenities within walking distance. The Project would introduce additional density and uses within close proximity to transit, and the myriad of services and destinations in the area. As a result, operation of the Project would encourage reduced transportation energy and provide employees, and visitors with multiple convenient alternative transportation options. As such, the Project encourages the use of efficient transportation energy use and efficient transportation alternatives.

(f) The Degree to which the Project Complies with Existing Energy Standards.

Construction equipment would comply with federal, state, and regional requirements where applicable. With respect to truck fleet operators, USEPA and NHSTA have adopted fuel efficiency standards for medium- and heavy-duty trucks. 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 six to 23 percent over the 2010 baseline, depending on the vehicle type.[76] USEPA and NHTSA also adopted

[74] SCAG, Connect SoCal: 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy, September 2020, page 52.

[75] CAPCOA, Quantifying Greenhouse Gas Mitigation Measures, 2010.

[76] USEPA, Fact Sheet: EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles, August 2011.

the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a five to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[77] The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards; however, these regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

In addition, construction equipment and trucks are required to comply with CARB regulations regarding heavy-duty truck idling limits of five minutes at a location and the phase-in of off-road emission standards that result in an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in the efficient use of construction-related energy.

Electricity and natural gas usage during operations, as shown in Table IV.C-2, would be minimized through incorporation of applicable Title 24 standards, applicable CALGreen Code requirements, and the Los Angeles Green Building Code.

With respect to operational transportation-related fuel usage, the Project would support Statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. Vehicles used by future visitors and employees would comply with CAFE fuel economy standards and the Pavley and Low Carbon Fuel standards, which are designed to result in more efficient use of transportation fuels. As discussed in detail in **Section IV.E, *Greenhouse Gas Emissions***, the Project's mixed use design and its increase in density located on an infill site within an HQTA in proximity to existing high-quality transit, including the future Wilshire/La Cienega Metro D (Purple) Line Station and multiple bus routes; its proximity to existing restaurant, office, retail, entertainment, and residential land uses; and its highly walkable environment support the conclusion that the Project has been properly designed and located so that its development would achieve a reduction in VMT greater than the regional and Statewide averages (refer to the detailed VMT analysis provided in **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR).

As such, based on the information above, the Project would comply with existing energy standards during construction and operation of the Project.

[77] USEPA, Federal Register/Vol. 81, No. 206/Tuesday, Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2, October 25, 2016.

(g) Conclusion

As demonstrated by the analyses of the criteria discussed above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or capacity. The Project's energy usage during peak and base periods would also not conflict with electricity, natural gas, and transportation fuel future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would also be sufficient to meet the needs of Project-related construction and operations. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements such as the 2019 Title 24 standards and CALGreen Code. In summary, the Project's energy demands would not significantly affect available energy supplies and would comply with existing energy efficiency standards. **In summary, Project impacts related to energy use under Threshold (a) would be less than significant during construction and operation of the Project and would not result in the wasteful, inefficient, and unnecessary consumption of energy. Therefore, Project impacts related to energy use would be less than significant during construction and operation.**

(2) Mitigation Measures

Impacts regarding wasteful, inefficient, and unnecessary consumption of energy would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts regarding to wasteful, inefficient, and unnecessary consumption of energy were determined be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

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

(1) Impact Analysis

As discussed, the Project is designed in a manner that is consistent with and not in conflict with relevant energy conservation plans that are intended to encourage development that results in the efficient use of energy resources. The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the Title 24 standards and CALGreen Code, which have been incorporated into the Los Angeles Green Building Code as amended by the City, to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Los Angeles Green Building Code).

The Project would also be consistent with, and not conflict with, regional planning strategies that address energy conservation. As discussed above and in **Section IV.E, *Greenhouse Gas Emissions***, 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, encouraging the reduction of building energy use, and increasing use of renewable sources. The Project's mixed-use design and its increase in density located on an infill site within a TPA in proximity to high-quality transit, including the future Wilshire/La Cienega Metro D (Purple) Line Station in 2023 and multiple bus routes; its proximity to existing off-site restaurant, office, retail, entertainment, and residential land uses; and its highly walkable environment support the conclusion from this analysis that the Project has been properly designed and located so that its development would achieve a reduction in VMT greater than the regional and Statewide averages (refer to the detailed VMT analysis provided in **Section IV.E, *Greenhouse Gas Emissions***, of this Draft EIR). These land use characteristics would minimize the Project's VMT and are included in the transportation fuel demand for mobile sources. Additional detailed information regarding these land use characteristics are provided in **Section IV.A, *Air Quality*, Section IV.E, *Greenhouse Gas Emissions*,** and **Section IV.J, *Transportation*,** of this Draft EIR.

As a result, the Project would incorporate water conservation, energy conservation, landscaping, and other features consistent with applicable actions and strategies in the City's Green New Deal, as well as sustainability features that go beyond those specified by regulations, such as the Los Angeles Green Building Code. **Therefore, the Project impacts associated with regulatory consistency would be less than significant.**

(2) Mitigation Measures

Impacts regarding conflicts with or obstructing a State or local plan for renewable energy or energy efficiency would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Impacts regarding conflicts with or obstructing a State or local plan for renewable energy or energy efficiency were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

e) Cumulative Impacts

(1) Impact Analysis

(a) Wasteful, Inefficient and Unnecessary use of Energy

Cumulative impacts occur when impacts that are significant or less than significant from a proposed project combined with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. The geographic context for the analysis of cumulative impacts on electricity is LADWP's service area, and the geographic context for the analysis of cumulative impacts on natural gas in SoCalGas' service area, because the Project and related projects are located within the service boundaries of LADWP and SoCalGas. While the geographic context for transportation-related energy use is more difficult to define, the City has determined to consider the Project in the context of County-wide consumption given the tendency for vehicles to travel within and through the County and the availability of County-level data. 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, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. However, LADWP and the CEC account for increases in demand based on various economic, population, and efficiency factors. Electricity demand in the region is projected to increase by 0.4 percent per year over the next 10 years (30 MW per year). The Project and related projects would be consistent with these growth projections.[78] As stated above, to determine its electricity load forecast, LADWP relies on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, PEV projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.[79] In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would therefore account for the Project's and the related projects' electricity demand within its forecasts.[80] Thus, LADWP considers growth from related projects within its service area for the

[78] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page 74.
[79] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page 70.
[80] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 31, 2017, page 67.

increase in demand for electricity, as well as the need for energy infrastructure, such as new or expanded energy facilities.

Related projects, as with the Project, would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient or unnecessary use of electricity, incorporate energy conservation features, comply with applicable regulations including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA.

Additionally, as discussed above, LADWP is required to procure a minimum of 33 percent of its energy portfolio from eligible renewables sources by 2020. LADWP's current sources of renewable energy include biomass and biowaste, geothermal, hydroelectric, solar and wind, and accounted for 32 percent of LADWP's overall energy mix, the most recent year for which data are available.[81] This represents the available off-site renewable sources of energy that could meet the Project's and related projects energy demand. Therefore, the Project and related projects would comply with the energy conservation plans and efficiency standards required to ensure efficient energy use. **As such, the Project's contribution to impacts related to the wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable. Therefore, cumulative impacts would be less than significant.**

(ii) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. As stated above, based on the 2020 California Gas Report, California Energy and Electric Utilities, which a collective of California utility companies, estimates natural gas supplies within SoCalGas' planning area will be approximately 1,253,775,000,000 cf in 2023.

As stated above, SoCalGas forecasts take into account projected population growth and development based on local and regional plans, and the Project's growth and development would not conflict with those projections.

Related projects, as with the Project, would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient or unnecessary use of natural gas, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards and CALGreen code, and incorporate mitigation measures, as necessary under CEQA.

81 LADWP, Power Content Label, July 2019.

As such, the Project's contribution to impacts related to the wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable. Therefore, cumulative impacts would be less than significant.

(iii) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the State and region. As described above, the Project would consume a total net increase of approximately 327,277 gallons of gasoline and approximately 34,620 gallons of diesel per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.05 percent of the 2018 annual on-road gasoline- and 0.03 percent of the annual on-road diesel-related energy consumption in Los Angeles County (based on the available County fuel sales data), as shown in Appendix E of this Draft EIR.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled which would reduce reliance on petroleum fuels. The CEC predicts that the demand for gasoline and transportation fossil fuels in general will continue to decline over the next ten years primarily due to improvements in fuel efficiency and increased electrification.[82]

The 2020-2045 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects and is applicable to the Project and related projects with respect to transportation energy efficiency. Similar to the Project, related projects would be required under CEQA to evaluate if their respective developments would result in wasteful, inefficient or unnecessary use of transportation energy. Furthermore, related projects would be required to implement mitigation measures, as needed, if found to result in wasteful, inefficient or unnecessary use of transportation energy.

Since the Project would be consistent with the 2020-2045 RTP/SCS, the Project's contribution to impacts related to the wasteful, inefficient and unnecessary use of transportation fuel or the wasteful, inefficient and unnecessary use of transportation fuel would not be cumulatively considerable. Therefore, cumulative impacts would be less than significant.

[82] CEC, 2019 Integrated Energy Policy Report, 2019, page 228.

(iv) Conclusion

Based on the analysis provided above, the Project's contribution to impacts related to energy consumption (i.e., electricity, natural gas, and petroleum-based fuel). or the wasteful, inefficient, or unnecessary consumption of energy would not be cumulatively considerable. Therefore, cumulative impacts would be less than significant.

(b) Consistency with State or Local Plans

Related projects, as with the Project, would be required to evaluate energy conservation features and compliance with applicable plans and standards including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate potential impacts related to consistency with the City's Green New Deal standards, and local and regional supplies or capacity based on regional growth plans, such as the LADWP energy supply projections for long-term planning.

Furthermore, the Project would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and achieve a reduction in VMT by resulting in a transportation efficiency level better than the regional and Statewide averages.

The 2020-2045 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects and is applicable to the Project, and related projects with respect to transportation energy efficiency. Related projects would be required under CEQA to evaluate if their respective developments would conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS, such as the per capita VMT targets, promotion of alternative forms of transportation, proximity to public transportation options, provisions for encouraging multi-modal and energy efficient transit such as by accommodating bicycle parking and EV chargers at or above regulatory requirements. Furthermore, related projects would be required to implement mitigation measures, as needed, if found to be in conflict with applicable provisions of the SCAG 2020-2045 RTP/SCS for the land use type.

(i) Conclusion

Based on the analysis provided above, the Project's contribution to impacts would not be cumulatively considerable related to conflicting with or obstruction of a State or local plan for renewable energy or energy efficiency. Therefore, cumulative impacts would be less than significant.

(2) Mitigation Measures

Cumulative impacts regarding energy would be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

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