IV. Environmental Impact Analysis

C. Energy

1. Introduction

This section of the Draft EIR provides the content and analysis required by Public Resources Code (PRC) Section 21100(b)(3) and described in Appendix F to the Guidelines for the Implementation of the California Environmental Quality Act (CEQA) (14 California Code of Regulations [CCR] Sections 15000 et seq.). In accordance with CEQA and Appendix F, Energy Conservation, of the CEQA Guidelines, in order to assure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (PRC Section 21100(b)(3)).

Consistent with the goals of Appendix F to conserve energy by decreasing overall per capita energy consumption, decreasing reliance on fossil fuels, and increasing reliance on renewable energy sources, this section analyzes the Project's potential impacts on energy resources, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section evaluates the demand for energy resources attributable to the Project and makes a determination as to whether the Project would result in a potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction and operation and whether the Project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The information presented herein is based, in part, on the *Energy Calculations for 2143 Violet Project* and the *Onni Violet Street Project (2143 Violet Street, Los Angeles, CA 90021) Utility Infrastructure Technical Report: Water, Wastewater, and Energy*, prepared for the Project by KPFF Consulting Engineers, dated February 27, 2018 (Utility Report), which are included as Appendices D and E, of this Draft EIR, respectively.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

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

(2) State

(a) California Building Standards Code (Title 24)

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

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (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.

On May 9, 2018, the California Energy Commission (CEC) adopted the 2019 Title 24 Standards, which went into effect on January 1, 2020. The 2019 standards continue to improve upon the previous (2016) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.[2] The 2019 Title 24 Standards, the standards ensure that builders use the most energy efficient and energy conserving technologies and construction practices. As described in the 2019 Title 24 Standards represent "challenging but achievable design and construction practices" that represent "a major step towards meeting the Zero Net Energy (ZNE) goal." Single-family homes built with the 2019 Title 24 Standards are projected to use approximately seven percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once the mandated rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016

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[1] *For more information on the CAFE standards, refer to www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy, accessed April 9, 2020.*

[2] *CEC, 2019 Building Energy Efficiency Standards.*

standards. Nonresidential buildings are projected to use approximately 30 percent less energy due mainly to lighting upgrades.[3] Compliance with Title 24 is enforced through the building permit process.

(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, went into effect on January 1, 2017. The 2019 CALGreen Code, which went into effect January 1, 2020, 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.[4] Most mandatory measure changes in the 2019 CALGreen Code from the previous 2016 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 outdoor water use were clarified to present a more generic reference to irrigation requirements for residential developments. In addition, the 2019 CALGreen Code resulted in minor changes to voluntary measures related to landscaping water usage and indoor air quality. Compliance with the CALGreen Code is enforced through the building permit process.

(b) California's Renewable Portfolio Standard

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) require retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020.[5] The California Public Utilities Commission (CPUC) and the California Energy Commission (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]

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[3] *CEC, News Release: Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation, www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first, accessed April 9, 2020.*

[4] *California Building Standards Commission, 2019 Green Building Standards Code.*

[5] *CPUC, Renewables Portfolio Standard (RPS) Program, www.cpuc.ca.gov/rps/, accessed April 9, 2020.*

[6] *CPUC, Renewables Portfolio Standard (RPS Program), www.cpuc.ca.gov/rps/, accessed April 9, 2020.*

(c) Senate Bill 350

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of Executive Order B-30-15, issued in April 2015, which established a new statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. The objectives of SB 350 are to: (1) increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.[7]

(d) Senate Bill 100

SB 100, signed September 10, 2018, is the 100 Percent Clean Energy Act of 2018. SB 100 updates the goals of California's Renewable Portfolio Standard and SB 350, as discussed above, to the following: achieve 50-percent renewable resources target by December 31, 2026, and achieve a 60-percent target by December 31, 2030. SB 100 also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.[8]

(e) Assembly Bill 1493/Pavley Regulations

AB 1493 (commonly referred to as CARB's Pavley regulations) recognized that climate change is a public health concern, that motor vehicles are a major source of the state's GHG emissions, and that reducing these emissions will protect public health and the environment while stimulating the economy and enhancing job opportunities.[9] While the main purpose is to reduce GHG emissions, the Pavley regulations would also result in better fuel efficiency. In comparison to the Federal CAFE standard of 35 miles per gallon (mpg), the California average fuel economy would be 43 mpg in 2020.[10]

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[7] *SB 350 (2015–2016 Reg. Session) Stats 2015, ch. 547.*

[8] *SB 100 (2017–2018 Reg. Session) Stats 2018, ch. 312.*

[9] *CARB, California's Greenhouse Gas Vehicle Emission Standards under Assembly Bill 1493 of 2002 (Pavley), ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley, accessed April 9, 2020.*

[10] *CARB, Addendum to February 25 Technical Assessment, Comparison of Greenhouse Gas Reductions for the United States and Canada under ARB Regulations and Proposed 2011-2015 Model Year Fuel Economy Standards,, May 8, 2008.*

(f) 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.[11] 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.[12]

(g) California Air Resources Board

(i) CARB's Advanced Clean Cars Program

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions-control program was approved by CARB in 2012.[13] The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.[14] The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[15]

(h) Sustainable Communities Strategy (SB 375)

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32. SB 375 specifically requires each Metropolitan Planning Organization (MPO) to prepare a "sustainable communities strategy" (SCS) as a part of its Regional Transportation Plan (RTP), that will achieve GHG emission reduction targets set by CARB for the years 2020 and 2035 by

[11] *CARB, Low Carbon Fuel Standard.*

[12] *CARB, Low Carbon Fuel Standard.*

[13] *CARB, Facts About the Advanced Clean Cars Program, revised November 9, 2011.*

[14] *CARB, Facts About the Advanced Clean Cars Program, revised November 9, 2011.*

[15] *CARB, Facts About the Advanced Clean Cars Program, revised November 9, 2011.*

reducing vehicle-miles traveled (VMT) from light-duty vehicles through the development of more compact, complete, and efficient communities.[16]

The Project Site is located within the planning jurisdiction of the Southern California Association of Governments (SCAG). SCAG's first-ever SCS 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 the SCS that reduce VMT (and result in corresponding decreases in transportation-related fuel consumption) focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. SCAG has since adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS).[17] The goals and policies of the 2016–2040 RTP/SCS are substantially the same as those in the 2012–2035 RTP/SCS. See further discussion below.

(i) Senate Bill 1389

SB 1389 (PRC Sections 25300–25323) requires the development of an integrated plan for electricity, natural gas, and transportation fuels. The CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report (IEPR) every two years. In 2018, the CEC decided to write the Integrated Energy Policy Report in two volumes. Volume I, which was published on August 1, 2018, highlights the implementation of California's innovative policies and the role they have played in establishing a clean energy economy. Volume II, which was adopted on February 20, 2019, provides more detail on several key energy issues and will encompass new analyses.[18] The IEPR contains measures, such as decarbonizing buildings, doubling energy efficiency savings, increasing flexibility in the electrical system to integrate more renewable energy, and reduce petroleum use in cars and trucks by up to 50 percent.

(j) California Environmental Quality Act

Appendix F provides a list of energy-related items that may be included throughout the various chapters of an EIR.

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16 *SCAG, Senate Bill 375 Factsheet.*

17 *SCAG, 2016–2040 RTP/SCS, dated April 2016.*

18 *CEC, 2018 Integrated Energy Policy Report, Volume I, August 2018.*

(3) Regional

As discussed in Section IV.F, Land Use, of this Draft EIR, SCAG's 2016–2040 RTP/SCS presents a long-term transportation vision through the year 2040 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. On April 7, 2016, the SCAG Regional Council adopted the 2016–2040 RTP/SCS, the mission of which is "leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians."[19] The 2016–2040 RTP/SCS includes land use strategies that focus on urban infill growth and walkable, mixed-use communities in existing urbanized and opportunity areas. More mixed-use, walkable, and urban infill development would be expected to accommodate a higher proportion of growth in more energy-efficient housing types like townhomes, apartments, and smaller single-family homes, as well as more compact commercial buildings types. Furthermore, the 2016–2040 RTP/SCS includes transportation investments and land use strategies that encourage carpooling, increased transit use, active transportation opportunities, and promoting more walkable and mixed-use communities which would potentially help to offset passenger VMT.

The 2016–2040 RTP/SCS also establishes High-Quality Transit Areas (HQTA), which are generally described as walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor that has a minimum density of 20 dwelling units per acre with a 15-minute or less service frequency during peak commute hours.[20] Local governments 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 2016–2040 RTP/SCS.[21]

(4) Local

(a) Green LA: An Action Plan to Lead the Nation in Fighting Global Warming/Climate LA

Green LA: An Action Plan to Lead the Nation in Fighting Global Warming/Climate LA (LA Green Plan), was released in May 2007, sets forth a goal of reducing the City's GHG emissions to 35 percent below 1990 levels by the year 2030.[22] ClimateLA is the implementation program that provides detailed information about each action item

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[19] *SCAG, 2016–2040 RPT/SCS, April 2016.*

[20] *SCAG, 2016–2040 RTP/SCS, April 2016, p. 8.*

[21] *SCAG, 2016–2040 RTP/SCS, Exhibit 5.1: High Quality Transit Areas in the SCAG Region for 2040 Plan, p. 77.*

[22] *City of Los Angeles, Green LA: An Action Plan to Lead the Nation In Fighting Global Warming, May 2007.*

discussed in the Green LA framework. Climate LA includes focus areas addressing environmental issues, including, but not limited to, energy, water, transportation, and waste.[23] The energy focus area includes action items with measures that aim to increase the use of renewable energy to 35 percent by 2020, reduce the use of coal-fired power plants, and present a comprehensive set of green building policies to guide and support private sector development.[24] Such energy saving measures include use of LED lighting, increased use of renewable energy, and increased solid waste diversion. As both the LA Green Plan and ClimateLA are interrelated, it will be referred to as LA Green Plan/Climate LA.

(b) City of Los Angeles Green Building Code

On December 11, 2019, the Los Angeles City Council approved Ordinance No. 186,488, 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 2019 CALGreen Code. Projects filed on or after January 1, 2020, 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. Mandatory measures include installation of electrical raceways to future electric vehicle supply equipment (EVSE), reduce water use by 20 percent compared to maximum allowable water use per plumbing fixture as required by the LAMC, and use of roofing material to reduce the heat island effect.

(c) City of Los Angeles Sustainable City pLAn/L.A.'s Green New Deal

The Sustainable City pLAn was adopted in 2015 and includes both short-term and long-term aspirations through the year 2035 in various topic areas, including water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others.[25] Specific targets include the construction of new housing units within 1,500 feet of transit by 2017, reducing VMT per capita by five percent by 2025, and increasing trips made by walking, biking, or transit by at least 35 percent by 2025. The Sustainable City pLAn was updated in

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[23] *City of Los Angeles, Climate LA: Municipal Program Implementing the GreenLA Climate Action Plan, 2008.*

[24] *City of Los Angeles, Climate LA: Municipal Program Implementing the GreenLA Climate Action Plan, 2008.*

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

April 2019 and renamed L.A.'s Green New Deal.[26] The 2019 Sustainable City pLAn/ L.A.'s Green New Deal has established targets, such as 100 percent renewable energy by 2045, diversion of 100 percent of waste by 2050, and recycling of 100 percent of wastewater by 2035.

(d) City of Los Angeles Solid Waste Programs and Ordinances

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, in 2015, 3.61 million tons of aluminum were produced by recycling in the United States, saving enough energy to provide electricity to 7.5 million homes.[27] In 1989, California enacted AB 939, the California Integrated Waste Management Act which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.[28] The City of Los Angeles has also adopted programs and ordinances related to solid waste. They include (1) the City of Los Angeles Solid Waste Management Policy Plan, which was adopted in 1993 and is a long-range policy plan promoting source reduction for recycling for a minimum of 50 percent of the City's waste by 2000 and 70 percent of the waste by 2020; (2) the RENEW LA Plan, which is a Resource Management Blueprint with the aim to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources now going to disposal so as to achieve an overall diversion level of 90 percent or more by 2025; (3) the Waste Hauler Permit Program (Ordinance No. 181,519), which requires all private waste haulers collecting solid waste, including construction and demolition waste, to obtain AB 939 Compliance Permits and to transport construction and demolition waste to City certified construction and demolition processing facilities; and (4) the Exclusive Franchise System Ordinance (Ordinance No. 182,986), which, among other requirements, sets maximum annual disposal levels and specific diversion requirements for franchised waste haulers in the City to promote solid waste diversion from landfills in an effort to meet the City's zero waste goals. These solid waste reduction programs and ordinances help to reduce the number of trips to haul solid waste, therefore reducing the amount of petroleum-based fuel, and also help to reduce the energy used to process solid waste.

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[26] *City of Los Angeles, L.A.'s Green New Deal, Sustainability Plan 2019, April 2019.*

[27] *American Geosciences Institute, How Does Recycling Save Energy?, www.americangeosciences.org/critical-issues/faq/how-does-recycling-save-energy, accessed April 9, 2020.*

[28] *CalRecycle, History of California Solid Waste Law, 1985–1989, www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989, accessed April 9, 2020.*

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 electrical energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

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

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

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resources Plan, the LADWP has a net dependable generation capacity greater than 7,531 MW.[29] In 2017, the LADWP power system experienced an instantaneous peak demand of 6,432 MW.[30] Approximately 32 percent of LADWP's 2018 electricity purchases were from renewable

[29] *LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017.*

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

sources, which is similar to the 31-percent statewide percentage of electricity purchases from renewable sources.[31]

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. According to the Utility Report, the Project Site is currently served by above ground conduits on power poles via both 7th Place and Violet Street. Existing electricity usage was estimated based on the same methodology contained in the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR (California Emissions Estimator Model [CalEEMod] Version 2016.3.2). It is estimated that existing uses on the Project Site currently consume approximately 627,942 kWh of electricity per year.[32]

(2) Natural Gas

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

Natural gas is provided to the Project Site by the Southern California Gas Company (SoCalGas). SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.8 million customers in more than 500 communities encompassing approximately 24,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[33]

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.[34] The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky

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[31] *CEC, 2018 Power Content Label, Los Angeles Department of Water and Power, July 2019.*

[32] *Eyestone Environmental, Energy Calculations for 2143 Violet Street Project, see Appendix D of this Draft EIR.*

[33] *SoCalGas, Company Profile, www.socalgas.com/about-us/company-profile, accessed April 9, 2020.*

[34] *California Gas and Electric Utilities, 2018 California Gas Report, pp. 80.*

Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.[35] Gas supply available to SoCalGas from California sources averaged 323 million cf per day in 2017 (the most recent year for which data are available).[36]

SoCalGas supplies natural gas to the Project Site from natural gas service lines located in the Project vicinity. According to the Utility Report, based on available substructure maps, there is an existing SoCalGas line under Violet Street. Existing natural gas usage was estimated based on the same methodology contained in the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR (CalEEMod Version 2016.3.2). It is estimated that existing uses on the Project Site currently consume approximately 265,165 cf of natural gas per year.[37]

(3) Transportation Energy

According to the CEC, transportation accounts for nearly 37 percent of California's total energy consumption in 2014.[38] In 2016, California consumed 15.5 billion gallons of gasoline and 3.0 billion gallons of diesel fuel.[39,40] Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.[41] 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.[42] The CEC predicts that the demand for gasoline will continue to decline over the next ten years, and there will be an increase in the use of alternative fuels.[43] According to CARB's EMFAC Web Database, Los Angeles County on-road

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35 *California Gas and Electric Utilities, 2018 California Gas Report, pp. 80.*

36 *California Gas and Electric Utilities, 2018 California Gas Report, pp. 80.*

37 *Eyestone Environmental, Energy Calculations for 2143 Violet Street Project, see Appendix D of this Draft EIR.*

38 *CEC, 2016 Integrated Energy Policy Report, docketed January 18, 2017, p. 4.*

39 *California Board of Equalization, Net Taxable Gasoline Gallons 10-Year Report.*

40 *California Board of Equalization, Net Taxable Diesel Gallons 10-Year Report.*

41 *CEC, 2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, March 2016.*

42 *State Board of Equalization, Economic Perspective, Discussion of Recent Economic Developments, Publication 329, Volume XIX, Number 1, February 2013.*

43 *CEC, 2015 Integrated Energy Policy Report.*

transportation sources consumed 7.19 billion gallons of gasoline and 1.23 billion gallons of diesel fuel in 2018.[44]

The existing on-site land uses currently generate a demand for transportation-related fuel use as a result of vehicle trips to and from the Project Site. The estimate of annual VMT associated with the existing Project Site uses is 1,009,550 VMT per year.[45] This translates to 50,308 gallons of gasoline and 8,916 gallons of diesel per year based on current (2018) fuel economy averages.[46] Persons traveling to and from the Project Site also have the option of using public transportation to reduce transportation-related fuel use. Specifically, three Metro Local bus routes run within 0.25 mile of the Project Site, including Metro Local Bus Lines 18, 60, and 62, with stops along Santa Fe Avenue and 7th Street. Metro Rapid 720 bus route runs within 0.5 mile of the Project Site, with a stop at the corner of 7th Street and Decatur Street. The Project Site is also located approximately 1.5 miles away from the Metro Gold Line Little Tokyo/Arts District and Pico/Aliso Stations.

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?

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

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

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[44] *CARB, EMFAC2014 Web Database.*

[45] *Eyestone Environmental, Energy Calculations for 2143 Violet Street Project, see Appendix D of this Draft EIR.*

[46] *Eyestone Environmental, Energy Calculations for 2143 Violet Street Project, see Appendix D of this Draft EIR.*

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.

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

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

With regard to Threshold (b), the Project is evaluated for consistency with adopted energy conservation plans and policies relevant to the Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CALGreen and City building codes. Also, as discussed in Section IV.E, Greenhouse Gas Emissions,

of this Draft EIR, the Project would be consistent with the SCAG 2016-2040 RTP/SCS, which includes goals to reduce VMT and corresponding reduction in fuel consumption.

b. Methodology

Appendix F provides the following topics that the lead agency may consider in the discussion of energy use in an EIR, where topics are applicable or relevant to the project:

- 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 degree to which the project complies with existing energy standards;
- The effects of the project on energy resources;
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

(1) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control (including supply and conveyance) and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using CalEEMod.[47] Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was calculated based on data provided in SCAQMD construction surveys (i.e., construction activity, horsepower, load factor, and hours of use per day).[48] The SCAQMD construction surveys identified the use of diesel generators to supply construction sites with electrical power. As SCAQMD recommends use of electricity from LADWP instead of diesel generators and the Project would not

[47] *California Air Pollution Control Officers Association, CalEEMod™ version 2016.3.2.*

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

include the use of diesel generators, the equivalent use of electrical power was calculated for the Project.

In terms of natural gas, construction activities typically do not involve the consumption of natural gas.

Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the project site, construction worker travel and from the project site, and delivery and haul truck trips (e.g., the hauling of demolition material to off-site reuse and disposal facilities). Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix D of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of SCAQMD's *CEQA Air Quality Handbook*. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC 2014 model (EMFAC2014). EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Consistent with CalEEMod, construction worker trips were assumed to include 50-percent light duty gasoline auto and 50-percent light-duty gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix D of this Draft EIR for detailed calculations.

(2) Operation

Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas was calculated using demand factors provided in CalEEMod as part of the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. Energy impacts associated with transportation during operation were also assessed. Daily trip generation used in this analysis was based on the *2143 Violet Street Project Transportation Impact Analysis* dated February 2020 (Transportation Study), prepared by Fehr and Peers (see Appendix N.1 of this Draft EIR). The Project-related VMT was calculated using the LADOT VMT Calculator. The VMT Calculator was developed by the City and LADOT to comply with SB 743 which requires lead agencies to adopt VMT criteria to determine transportation related impacts. The daily Project-VMT was then input into CalEEMod, which calculated the annual VMT. The resulting annual VMT was used as part of the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. Based on this annual VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon calculated using EMFAC2014. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for Los Angeles County.

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

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies in 2024 (i.e., buildout of the Project) to determine if these two energy utility companies would be able to meet the Project's energy demands. The capacity of existing local infrastructure to accommodate the Project's estimated electricity and natural gas demand was assessed based on service letters included as part of Appendix E of this Draft EIR. These calculations were used to determine if the Project causes the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F of the CEQA Guidelines.

c. Project Design Features

The Project would include project design features designed to improve energy efficiency as set forth in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, detailed in Project Design Feature GHG-PDF-1. These measures include, but are not limited to, exceeding Title 24, Part 6, California Energy Code baseline standard requirements, installation of occupancy-controlled light switches and thermostats, installation of time-controlled lighting, and provisions to encourage pedestrian and bicycle use.

d. Analysis of Project Impacts

Threshold (a): Would the Project result in potentially significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

(1) Impact Analysis

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

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

The Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas

consumption, and transportation fuels, such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (construction, operations, maintenance, and removal activities).[49]

For purposes of this analysis, Project maintenance would include activities, such as repair of structures, landscaping and architectural coatings. Energy usage related to Project maintenance activities are assumed to be included as part of Project operations. Project removal activities of the structures constructed under this Project would include demolition or abandonment of the Project Site. However, it is not known when the Project would be removed. Therefore, analysis of energy usage related to Project removal activities would be speculative. For this reason, energy usage related to Project removal was not analyzed.

(i) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the demolition of existing structures, construction of new buildings, and facilities, typically do not involve the consumption of natural gas. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

As shown in Table IV.C-1 on page IV.C-19, a total of 64.7 MWh of electricity, 147,727 gallons of gasoline, and 351,168 gallons of diesel is estimated to be consumed during Project construction.

Electricity

During construction of the Project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electronic equipment, and other construction activities necessitating electrical power. Electricity would be supplied to the Project Site by existing electrical services within the Project Site and would not affect other services.

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

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

Fuel Type	Quantity
Electricity	
Water Consumption	17,523 kWh
Lighting, electronic equipment, and other construction activities	47,174 kWh
Total Electricity	**64,697 kWh**
Gasoline	
On-Road Construction Equipment	147,727 gallons
Off-Road Construction Equipment	0 gallons
Total Gasoline	**147,727 gallons**
Diesel	
On-Road Construction Equipment	230,972 gallons
Off-Road Construction Equipment	120,196 gallons
Total Diesel	**351,168 gallons**

kWh = kilowatt hours

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

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

Source: Eyestone Environmental, 2020.

As shown in Table IV.C-1, a total of approximately 64,697 kWh of electricity is anticipated to be consumed during Project construction. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the site and staging areas would also comply with applicable Title 24 requirements, which includes limits on the wattage allowed per specific area, which result in the conservation of energy.[50] As such, the demand for electricity during construction would not cause wasteful, inefficient, and unnecessary use of energy.

The estimated construction electricity usage represents approximately one percent of the estimated net annual operational demand, which, as discussed below, would be

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

within the supply and infrastructure service capabilities of LADWP.[51] Moreover, construction electricity usage would replace some of the existing electricity usage at the Project Site during construction.

Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no demand generated by construction.

Transportation Energy

The petroleum-based fuel use summary provided in Table IV.C-1 on page IV.C-19 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix D, of this Draft EIR. As shown, on- and off-road vehicles would consume an estimated 147,727 gallons of gasoline and approximately 351,168 gallons of diesel fuel throughout the Project's construction. For comparison purposes, the fuel usage during Project construction would represent approximately 0.002 percent of the 2024 annual on-road gasoline-related energy consumption and 0.03 percent of the 2024 annual diesel fuel-related energy consumption in Los Angeles County, as shown in Appendix D, of this Draft EIR.

Trucks and equipment used during proposed construction activities would comply with CARB's anti-idling regulations, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation.[52] In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. Anti-idling regulations would limit the amount of fuel wasted in equipment and trucks that are not in operation. Emissions regulations to control

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[51] *The percentage is derived by taking the total amount of electricity usage during construction (64,697 kWh) and dividing that number by the total amount of net electricity usage during operation (5,996,153 kWh) to arrive at one percent.*

[52] *The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2485) was primarily adopted to reduce diesel air toxic pollutant emissions from heavy-duty trucks but also indirectly encourages the use of petroleum-based fuel in a more efficient manner by not allowing diesel trucks to idle for greater than 5 minutes at any location. The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, CCR, Division 3, Chapter 1, Section 2025) was primarily adopted to reduce pollutant emissions but also indirectly encourages the use of petroleum-based fuel in a more efficient manner by requiring retirement, replacement, or repower of older less efficient, dirtier engines.*

DPM and NOx emissions would require that engines be more efficient, which results in reduced fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to Federal fuel efficiency requirements. Therefore, Project construction activities would comply with existing energy standards with regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not cause wasteful, inefficient, and unnecessary use of energy.

Construction Materials

The energy analysis does not include a full life cycle analysis of energy usage that would occur over the production/transport of materials used during the construction of the Project or used during the operational life of the Project, or the end of life for the materials and processes that would occur as an indirect result of the Project. Estimating the energy usage associated with these processes would be too speculative for meaningful consideration, would require analysis beyond the current state-of-the-art in impact assessment, and may lead to a false or misleading level of precision in reporting. Manufacture and transport of materials related to Project construction and operation 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, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in Table IV.C-2 on page IV.C-22, the Project's net new energy demand would be approximately 5,996 MWh of electricity per year, 9,294,200 cf of natural gas per year, 632,265 gallons of gasoline per year, and 115,330 gallons of diesel fuel per year.

Electricity

As shown in Table IV.C-2, with compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, buildout of the Project would result in a projected net increase in the on-site demand for electricity totaling approximately 5,996 MWh per year. In addition to complying with CALGreen Code requirements, the Applicant would also implement GHG-PDF-1 in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would include features so as to be capable of exceeding Title 24 energy efficiency requirements, use of Energy Star-labeled appliances, a reduction of indoor water use by at least 20 percent, use of plumbing fixtures and fitting

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

Source	Estimated Energy Demand
Electricity	
Building	5,167 MWh
Water[b]	829 MWh
Total Electricity	**5,996 MWh**
Natural Gas	
Building	9,294,200 cf
Total Natural Gas[c]	**9,294,200 cf**
Transportation (On-Road Vehicles and Off-Road Equipment)	
Gasoline	681,701 gallons
Diesel	124,347 gallons
Total Transportation[d]	**806,049 gallons**

cf = cubic feet

MWh = million kilowatt hours

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

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

[c] *Electricity and natural gas estimates assume compliance with applicable 2019 CALGreen requirements and implementation of GHG-PDF-1, in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR.*

[d] *Transportation fuel estimates include project characteristics consistent with LADOT VMT Calculator output. With implementation of Mitigation Measure TR-MM-1 (TDM Program), transportation fuel would be reduced by approximately 38,175 gallons of gasoline and 6,963 gallons of diesel per year.*

Source: Eyestone Environmental, 2020.

that exceed the performance requirements specified in the LAMC, and use of a weather-based irrigation system and water efficient landscaping with use of drought tolerant plants in up to 60 percent of the proposed landscaping. These measures would further reduce the Project's energy demand. It should be noted that the CalEEMod energy (electricity and natural gas) calculations are based on 2016 Title 24 energy efficiency standards and has not been updated to 2019 Title 24 standards. This analysis conservatively includes a 10-percent reduction in the CalEEMod calculated energy use to account for compliance with 2019 Title 24 standards.

In addition, LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020. The current sources procured by LADWP include wind, solar, and geothermal sources. These sources account for 32 percent of

LADWP's overall energy mix in 2018, the most recent year for which data are available.[53] This represents the available off-site renewable sources of energy that would meet the Project's energy demand. The use of renewable energy would indirectly reduce use of fossil fuels required for electricity generation (e.g., natural gas, coal, oil). While the electricity usage rate for a given land use would not be directly affected by the availability of renewable energy, the consumption of fossil fuels required for electricity generation would be reduced.

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

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2024–2025 fiscal year (the Project's buildout year) will be 23,286 GWh of electricity.[54,55] As such, the Project-related net increase in annual electricity consumption of 5,996 MWh per year would represent less than 0.03 percent of LADWP's projected sales in 2024. In addition, as previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

Natural Gas

As provided in Table IV.C-2 on page IV.C-22, with compliance with 2019 Title 24 standards and applicable 2019 CALGreen Code requirements, buildout of the Project is projected to generate a net increase in the on-site demand for natural gas totaling approximately 9,294,200 cf per year. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen Code), the Project would implement project design features to further reduce energy use. The Project would implement GHG-PDF-1 in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, which would include features so as to be capable of exceeding Title 24 energy efficiency requirements by implementing conservation features to reduce natural gas usage. In order to meet the energy performance requirement, the Project may include use of efficient water heaters, cooking equipment and other major support appliances.

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[53] *CEC, 2018 Power Content Label, Los Angeles Department of Water and Power, July 2019.*

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

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

As stated above, the Project's estimated net increase in demand for natural gas is 9,294,200 cf per year, which translates to 25,464 cf per day. Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.47 billion cf per day in 2024 (the Project's buildout year).[56] The Project would account for approximately 0.001 percent of the 2024 forecasted consumption in SoCalGas' planning area. In addition, as also previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

Transportation Energy

Based on the Project trip-generation estimates provided in Section IV.I, Transportation, of this Draft EIR, the 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 is located in an HQTA designated by SCAG, which indicates that the Project Site is an appropriate site for increased density and employment opportunities from a "smart growth," regional planning perspective.[57] As discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project Site is located within a quarter mile of three Metro Local bus routes with stops along Santa Fe Avenue and 7th Street, including a stop adjacent to the Project Site on Santa Fe Avenue. Metro Rapid 720 bus route runs within 0.5 mile of the Project Site, with a stop at the corner of 7th Street and Decatur Street. The Project Site is also located 1.5 miles from the Metro Gold Line Little Tokyo/Arts District and Pico/Aliso Stations. Furthermore, the Project would provide short- and long-term bicycle parking spaces as required by the LAMC in addition to bicycle-serving amenities that would further encourage biking.

Previously, trip generation for land uses was calculated based on survey data collected by the Institute of Transportation Engineers (ITE). However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019, the USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the EPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use

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[56] *California Gas and Electric Utilities, 2018 California Gas Report p. 100. Interpolated between 2025 and 2030 estimates.*

[57] *The City's Zoning Information and Map Access System (ZIMAS) also shows the Project Site in a Transit Priority Area (TPA). However, transit headways do not appear to meet the requirements for a TPA.*

developments.[58] The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix D, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 23 percent reduction in overall VMT and resultant transportation fuel consumption compared to the baseline ITE trip generation rates.

As such, the Project's siting would minimize transportation fuel consumption through the reduction of VMT, as described above and discussed further in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR.

As summarized in Table IV.C-2 on page IV.C-22, when accounting for the measures that would be implemented to reduce VMT, the Project's estimated petroleum-based fuel usage would be approximately 681,701 gallons of gasoline and 124,347 gallons of diesel per year, or a total of 806,049 gallons of petroleum-based fuels annually, compared to 1,044,049 gallons of petroleum-based fuels annually for a project without reduction features.

(iii) Summary of Energy Requirements and Energy Use Efficiencies

CEQA Guidelines Appendix F recommends quantification of a project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of a project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed. The Project's energy requirements were calculated based on the methodology contained in CalEEMod for electricity and natural gas usage. The calculations also took into account energy efficiency measures, such as Title 24, CALGreen Code, and vehicle fuel economy standards. Table IV.C-1 and Table IV.C-2 on pages IV.C-19 and IV.C-22, respectively, provide a summary of Project construction and operational energy usage, respectively. During Project construction activities, a total of 64,697 kWh of electricity would be consumed along with 498,894 gallons of transportation fuel (gasoline and diesel). During Project operations, a total of 5,996 MWh of electricity, 9,294,200 cf of natural gas, and 806,049 gallons of transportation fuel would be consumed on an annual basis. When accounting for project design features and increased energy efficiency measures, operational electricity usage would be reduced by 10 percent and transportation fuel usage would be reduced by 23 percent when compared to the Project without energy efficiency measures. With implementation of Mitigation Measure TR-MM-1 (TDM Program), transportation fuel would be further reduced by approximately 38,175 gallons of gasoline and 6,963 gallons of diesel

[58] *Environmental Protection Agency, Mixed-Use Trip Generation Model, www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed April 9, 2020.*

per year. This mitigation measure would further support that the Project would not result in wasteful, inefficient or unnecessary consumption of energy resources. Details are provided in Appendix D of this Draft EIR.

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

(i) Construction

As discussed above, electricity would be intermittently consumed during the conveyance of the water used to control fugitive dust, as well as to provide electricity for temporary lighting and other general construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 1 percent of the estimated net annual operational demand which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.[59] 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, resulting in a net decrease when compared to existing operations. 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. As energy consumption during Project construction activities would be relatively negligible, the Project would not likely affect regional energy consumption in years during the construction period.

(ii) Operation

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2024–2025 fiscal year (the Project's buildout year) will be 23,286 GWh of electricity.[60,61] As such, the Project-related net increase in annual electricity consumption of 5,996 MWh per year would represent less than 0.03 percent of LADWP's projected sales in 2024.[62] Furthermore, LADWP has

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[59] *The percentage is derived by taking the total amount of electricity usage during construction (64,697 kWh) and dividing that number by the total amount of net electricity usage during operation (5,996 MWh) to arrive at 1 percent.*

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

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

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

confirmed that the Project's electricity demand can be served by the facilities in the Project area.[63] Therefore, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand.

As stated above, the Project's estimated net decrease in demand for natural gas is 9,294,200 cf per year, which translates to 25,464 cf per day. Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.47 billion cf per day in 2024 (the Project's buildout year).[64] The Project would account for approximately 0.001 percent of the 2024 forecasted consumption in SoCalGas' planning area. Furthermore, SoCalGas has confirmed that the Project's natural gas demand can be served by the facilities in the Project area.[65]

As energy consumption during Project operation would be relatively negligible and energy requirements are within LADWP's and SoCalGas' service provision, Project operation would not likely affect regional energy consumption.

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

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of LADWP's power grid and base load conditions. With regard to peak load conditions, the LADWP power system experienced an all time high peak of 6,432 MW on August 31, 2017.[66] LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2017, the base case peak demand for the power grid is 5,854 MW.[67] Under peak conditions, the Project would consume a total of 5,996 MWh on an annual basis, which is equivalent to a daily peak load of 1,229 kW. In comparison to the LADWP power grid base peak load of 5,854 MW in 2017, the Project would represent approximately 0.02 percent of the LADWP base peak load conditions. In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical

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[63] *KPFF Consulting Engineers, Utility Technical Report: Water, Wastewater, and Energy, February 27, 2018, refer to Appendix E of this Draft EIR.*

[64] *California Gas and Electric Utilities, 2018 California Gas Report p. 100. Interpolated between 2025 and 2030 estimates.*

[65] *KPFF Consulting Engineers, Utility Technical Report: Water, Wastewater, and Energy, February 27, 2018, refer to Appendix E of this Draft EIR.*

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

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

demand by the Project.[68] As shown in Table IV.K-1, electricity usage during Project construction activities would be lower than the operational activities. As Project operational electricity usage demands would be met by the LADWP supplies, construction electricity usage would not significantly impact the electrical grid. Therefore, Project electricity consumption during construction and operational activities would have a negligible effect on peak load conditions of the power grid.

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

Construction equipment would comply with energy efficiency requirements contained in the Federal Energy Independence and Security Act or previous Energy Policy Acts for electrical motors and equipment.[69] Electricity and natural gas usage during Project operations presented in Table IV.C-2 on page IV.C-22 would comply with 2019 Title 24 standards and applicable 2019 CALGreen Code and Los Angeles Green Building Code requirements. Therefore, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage.

With regard to transportation fuels, the Project would comply with CARB's anti-idling regulations, as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy. During Project operations, vehicles traveling to and from the Project Site are assumed to comply with CAFE fuel economy standards, as required.

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

(e) Effects of the Project on Energy Resources

As discussed above, LADWP's electricity generation is derived from a mix of non-renewable and renewable sources such as coal, natural gas, solar, geothermal wind and hydropower. The LADWP's most recently adopted 2017 Power Strategic Long-Term Resources Plan identifies adequate resources (natural gas, coal) to support future generation capacity.

Natural gas supplied to Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California

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

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

region are obtained from locations throughout the western United States as well as Canada.[70] According to the U.S. Energy Information Administration (EIA), the United States currently has over 80 years of natural gas reserves based on 2015 consumption.[71] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

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

Transportation fuels (gasoline and diesel) are produced from crude oil, which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[72] The Project would also comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). The Project would also include adequate alternative modes of transportation by providing for bicycle parking spaces and preferred parking for fuel efficient vehicles, resulting in a reduction of transportation fuel usage. Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in the Regulatory Framework, one of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. However, as of September 2018, SB 100 was signed, which would require retail sellers of electric services to increase procurement from eligible renewable energy resources to 50 percent renewable resources target by December 31, 2026, and 60 percent by December 31, 2030. Accordingly, LADWP is required to procure at least 60 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources account for 32 percent of LADWP's overall energy mix in 2018, the most recent year for which data are available.[73] This represents the available off-site renewable

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[70] *California Gas and Electric Utilities, 2018 California Gas Report.*

[71] *U.S. Energy Information Administration, Frequently Asked Questions, www.eia.gov/tools/faqs/faq.php?id=58&t=8, accessed April 9, 2020.*

[72] *BP Global, Oil Reserves, www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html, accessed April 9, 2020.*

[73] *CEC, 2018 Power Content Label, Los Angeles Department of Water and Power, July 2019.*

sources of energy that would meet the Project's energy demand. The Project's use of renewable energy would indirectly reduce use of fuels required for electricity generation (e.g., natural gas, coal, oil). While the Project's electricity usage rate would not be directly affected by the availability of renewable energy, the Project's usage of renewable energy would indirectly avoid consumption of fossil fuels.

With regard to on-site renewable energy sources, the Project would comply with Title 24 requirements for "Solar Ready Buildings" which requires a certain area of rooftop to be set aside for installation of solar panels. However, due to the Project Site's location, other on-site renewable energy sources would not be feasible to install on-site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, methane, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Furthermore, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.[74]

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

As discussed above, the Project would include project features to reduce VMT during operational activities. The Project includes dedicated bicycle parking facilities and encourages non-automotive forms of transportation, such as walking or biking to destinations. In addition, the Project represents an infill development within an existing urbanized area that would concentrate new residential, office, retail/restaurant, and community room that residents could use for art production within an HQTA. Specifically, three Metro Local bus routes run within 0.25 mile of the Project Site, including Metro Local Routes 18, 60, and 62, with stops along Santa Fe Avenue and 7th Street. Metro Local Route 60 stops adjacent to the Project Site along Santa Fe Avenue. Metro Rapid 720 bus route also runs within 0.5 mile of the Project Site, with a stop at the corner of 7th Street and Decatur Street. The Project Site is also located approximately 1.5 miles away from the Metro Gold Line Little Tokyo/Arts District and Pico/Aliso Stations. As further discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, these measures would reduce Project-related VMT in comparison to a standard project without convenient access to mass transit, with a corresponding reduction in the Project's petroleum-based fuel usage. Therefore, the Project would encourage the use of efficient transportation alternatives.

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[74] *CEC, Wind Resource Area & Wind Resources, www.energy.ca.gov/maps/renewable/wind.html, updated August 3, 2018.*

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

The current City of Los Angeles Green Building Code requires compliance with CALGreen Code and Title 24. In addition, the Project would implement measures to further reduce energy consumption during operations such as use of energy efficient appliances and water saving measures. Therefore, the Project would incorporate measures that are consistent with or better than current state and City energy conservation requirements.

The City has also adopted several plans and regulations to promote the reduction, reuse, recycling, and conversion of solid waste going to disposal systems. These regulations include the City of Los Angeles Solid Waste Management Policy Plan, the RENEW LA Plan, the City of Los Angeles Space Allocation Ordinance (Ordinance No. 171,687), and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. As discussed in the Initial Study included as Appendix A of this Draft EIR, the Project would be consistent with the applicable regulations associated with solid waste. Specifically, the Project would provide adequate storage areas in accordance with Ordinance No. 171,687, which requires that development projects include an on-site recycling area or room of specified size.[75] The Project would also comply with State and City waste diversion goals, as applicable, by providing clearly marked, source-sorted receptacles to facilitate recycling. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

With implementation of these features along with complying with state and local energy efficiency standards, the Project would meet and/or exceed all applicable energy conservation policies and regulations.

(h) Whether the Project conflicts with adopted energy conservation plans

As discussed in Section IV.E, Greenhouse Gas Emissions, the City has published the LA Green Plan/ClimateLA in 2007, which outline goals and actions by the City to reduce GHG emissions. To facilitate implementation of the LA Green Plan/Climate LA, the City adopted the Green Building Code. The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in

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

the 2019 CALGreen Code and Title 24, which have been incorporated into the City's Green Building Code.

With regard to transportation uses, the Project design would reduce VMT throughout the region and encourage use of alternative modes of transportation. The Project would be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.F, Land Use, of this Draft EIR, SCAG's 2016–2040 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 2016–2040 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The Project would be consistent with the energy efficiency policies emphasized in the 2016–2040 RTP/SCS. Most notably, the Project would be an infill development within an existing urbanized area that would concentrate new residential, office, retail/restaurant, and artist production amenity uses within an HQTA[76], which is defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours (see Section IV.F, Land Use, of this Draft EIR for further details). Specifically, three Metro Local bus routes run within 0.25 mile of the Project site including Metro Local Routes 18, 60, and 62, with stops along Santa Fe Avenue and 7th Street. Metro Local Route 60 stops adjacent to the Project Site along Santa Fe Avenue. Metro Rapid 720 bus route also runs within 0.5 mile of the Project Site, with a stop at the corner of 7th Street and Decatur Street. The Project Site is also located approximately 1.5 miles away from the Metro Gold Line Little Tokyo/Arts District and Pico/Aliso Stations. Furthermore, the Project would provide short- and long-term bicycle parking spaces as required by the LAMC. Development of the Project within an HQTA would encourage the use of transit and reduce the transportation fuel associated with VMT.

The introduction of new housing and job opportunities within an HQTA, as proposed by the Project, is consistent with numerous policies in the 2016–2040 RTP/SCS. The 2016–2040 RTP/SCS is estimated to result in an 8-percent decrease in VMT by 2020, an 18-percent decrease in VMT by 2035, and a 21-percent decrease in VMT by 2040. In March 2018, CARB adopted updated targets requiring a 19-percent decrease in VMT for the SCAG region by 2035. As the CARB targets were adopted after the 2016–2040 RTP/SCS, it is expected that the updated targets will be incorporated into the next RTP/SCS. The 2016–2040 RTP/SCS and/or the next RTP/SCS are expected to fulfill and exceed SB 375 compliance with respect to meeting the State's GHG emission reduction goals. Consistent with both the 2016–2040 RTP/SCS and CARB's updated targets

[76] *SCAG, 2016–2040 RTP/SCS, Exhibit 5.1, dated April 2016*

adopted in March 2018, the Project would reduce VMT by 23 percent, thereby reducing fuel usage.

These VMT reducing measures are also consistent with the goals of the Sustainable City pLAn/L.A.'s Green New Deal, which targets GHG emissions generated by city-owned buildings and properties. Although the Sustainable City pLAn/L.A.'s Green New Deal targets City-generated GHG emissions, the Project would also comply with or not conflict with measures to reduce GHG emission. In addition, as previously discussed, the Project would exceed state energy efficiency requirements and would use electricity from LADWP, which had a renewable energy mix of 32 percent in 2018, the most recent year for which data are available. All of these features would serve to reduce the consumption of electricity, natural gas, and transportation fuel. Based on the above, the Project would be consistent with adopted energy conservation plans.

(i) Conclusion Regarding SignificanceThreshold No. 1

As demonstrated in the analysis above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. Project Design Feature GHG-PDF-1, would allow the Project to exceed Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency. The Project would also reduce VMT by 23 percent in comparison to a Project without trip reduction features (transit accessibility, mix of uses, proximity to job centers), thereby reducing fuel usage. The Project's energy requirements would not significantly affect local or regional supplies or capacity. The Project's energy usage during base and peak periods would be consistent with electricity and natural gas future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would be sufficient to meet the needs of Project-related construction and operational activities. During construction the Project would comply with on-road fuel economy Title 24 energy efficiency standards where applicable resulting in efficient use of energy. During operations, the Project would comply with applicable energy efficiency requirements, such as CALGreen Code, as well as include energy conservation measures beyond such requirements. **In summary, the Project would comply with relevant energy efficiency standards and would not cause wasteful, inefficient, or unnecessary use of energy. Therefore, Project impacts related to energy use would be less than significant during construction and operation.**

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project impacts with regard to energy use would be less than significant without mitigation.

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

(1) Impact Analysis

As discussed above, the energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the 2019 CALGreen building code, and the City of Los Angeles Green Building Code. As these conservation policies are mandatory under the City of Los Angeles Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency. In addition, the Project would implement measures to exceed Title 24 energy efficiency requirements.

With regard to transportation related energy usage, the Project would comply with goals of the SCAG's 2016-2040 RTP/SCS, which incorporates VMT targets established by SB 375. The Project's mixed-use development and proximity to major job centers and public transportation would serve to reduce VMT and associated transportation fuel usage within the region. In addition, vehicle trips generated during Project operations would comply with CAFE fuel economy standards. During construction activities, the Project would be required to comply with CARB anti-idling regulations and the In-Use Off-Road Diesel Fleet regulations.

Based on the above, the Project would not conflict with adopted energy conservation plans, or violate state or federal energy standards. **Therefore, Project impacts associated with regulatory consistency would be less than significant.**

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project impacts with regard to conflicts with plans would be less than significant without mitigation.

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 combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. The geographic context for the cumulative analysis of electricity is LADWP's service area and the geographic context for the cumulative analysis of natural gas is SoCalGas' service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the Project in the context of County-wide consumption. Growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

(i) Electricity

Although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient, and would be consistent with growth expectations for LADWP's service area. The Project would also incorporate additional energy efficiency measures to make the Project capable of exceeding Title 24 energy efficiency standards, as required by Project Design Feature GHG-PDF-1. Furthermore, other future development projects within LADWP's service area would be expected to incorporate energy conservation features, comply with applicable regulations, including CALGreen Code and state energy standards under Title 24, and incorporate mitigation measures, as necessary.

Additionally, as discussed above, LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources accounted for 32 percent of LADWP's overall energy mix in 2018, the most recent year for which data are available.[77] This represents the available off-site renewable sources of energy that could meet the Project's energy demand and energy demand of future projects within LADWP's service area. Therefore, the Project and other future projects within LADWP's service area would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **As such, the Project's**

[77] *CEC, 2018 Power Content Label, Los Angeles Department of Water and Power, July 2019.*

contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.

(ii) Natural Gas

Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient, and would be consistent with regional and local growth expectations for SoCalGas' service area. The Project would also incorporate additional energy efficiency measures capable of exceeding Title 24 energy efficiency standards. Furthermore, future development projects within SoCalGas' service area would be expected to incorporate energy conservation features, comply with applicable regulations, including CALGreen Code and state energy standards under Title 24, and incorporate mitigation measures, as necessary. Therefore, the Project and other future development projects within SoCalGas' service area would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **As such, cumulative impacts related to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and, thus, 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, at buildout, the Project would consume a total of 632,265 gallons of gasoline and 115,330 gallons of diesel per year, or a total of 747,945 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.008 percent of the 2024 annual on-road gasoline and diesel related energy consumption in Los Angeles County, as shown in Appendix D, of this Draft EIR.

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

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the state has

implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT, which would reduce reliance on petroleum fuels. According to the California Department of Tax and Fee Administration, gasoline consumption has increased by four percent from 2010 to 2018[78]; however, the CEC predicts that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions.

Furthermore, as described above, the Project would be consistent with the energy efficiency policies emphasized by the 2016–2040 RTP/SCS. Specifically, the Project would be an infill development within an existing urbanized area that would concentrate new residential, office, retail/restaurant, and artist production amenity uses within an HQTA. The Project would provide greater proximity to neighborhood services and residences and would be well-served by existing public transportation, including Metro and LADOT bus lines and rail line. The Project also would introduce new housing and job opportunities within an HQTA, which is consistent with numerous policies in the 2016–2040 RTP/SCS related to locating new jobs near transit. These features would serve to reduce VMT and associated transportation fuel consumption.[79] Although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[80] Implementation of the 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita GHG emissions by 2020, 18-percent decrease in per capita GHG emissions by 2035, and 21-percent decrease in per capita GHG emissions by 2040. As discussed above, CARB updated the SB 375 targets for the SCAG region, requiring a 19-percent decrease in VMT by 2035. Implementation of the 2016–2040 RTP/SCS or the next plan is expected to fulfill and exceed the region's obligations under SB 375 with respect to meeting the State's GHG emission reduction goals. As discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project results in a VMT reduction of approximately seven percent in comparison to a standard project without trip reduction features (transit accessibility, mix of uses, proximity to job centers), as estimated by CalEEMod, which would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS and with CARB's updated 2035 target.

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[78] *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed April 9, 2020.*

[79] *Provision of code-required EV infrastructure would also serve to reduce transportation fuel consumption.*

[80] *SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 153.*

Although the 2016–2040 RTP/SCS is intended to reduce GHG emissions, the reduction in VMT would also result in reduced transportation fuel consumption. By its very nature, the 2016–2040 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects. In addition, it is assumed that related projects in the Project Site vicinity would reduce VMT, consistent with the goals of the 2016–2040 RTP/SCS. **Since the Project is consistent with the 2016 RTP/SCS, its contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of transportation fuel would not be cumulatively considerable and, thus, would be less than significant.**

(iv) Conclusion

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

(b) Consistency with State or Local Plans

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

Furthermore, as described above, the Project would be consistent with the policies emphasized by the 2016–2040 RTP/SCS. The Project would be mixed-use and located near major job centers and public transit which would result in a VMT reduction. As discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project results in a VMT reduction of approximately seven percent in comparison to a Project without Reduction Features as estimated by CalEEMod, which would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS and with CARB's updated 2035 target. Similarly, most, if not all, of the related Project would also be located near job centers and public transit, which would result in VMT reductions. Therefore, the Project is consistent with the 2016-2040 RTP/SCS and would not be cumulatively considerable with regard to consistency with energy conservation plans.

(2) Mitigation Measures

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

(3) Level of Significance after Mitigation

Cumulative impacts would be less than significant without mitigation.