IV. Environmental Impact Analysis

C. Energy Resources

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)). In addition, Appendix G of the CEQA Guidelines contains threshold questions used to determine whether a project would have significant impacts on energy resources.

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 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 Resources Calculations, which are included as Appendix D of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

(a) Federal Corporate Average Fuel Economy (CAFE) Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and 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]

(b) Energy Independence and Security Act

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

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;

- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and

- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

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

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."[2]

(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 (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. 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.[3] The 2019 Title 24 Standards are "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 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once 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 standards. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.[4]

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

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is updated regularly with the latest version (2019) going into effect January 1, 2020. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.[5] . Most mandatory measure changes in the 2019 CALGreen Code from the previous 2016 CALGreen Code were related to the definitions

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

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

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

[5] *California Building Standards Commission, Guide to the 2019 California Green Building Standards Code Nonresidential, November 2019.*

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.[6] The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.[7] The CEC's responsibilities include: (1) certifying renewable facilities as eligible for the RPS; and (2) designing and implementing a tracking and verification system to ensure that renewable energy output is counted only once for the purpose of the RPS and verifying retail product claims in California or other states.

(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 greenhouse gas (GHG) emissions 40 percent below their 1990 levels by 2030. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.[8]

(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 RPS and SB 350, as discussed above, to the

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[6] *CPUC, California Renewables Portfolio Standard (RPS), www.cpuc.ca.gov/RPS_Homepage/, accessed February 14, 2020.*

[7] *CPUC, California Renewables Portfolio Standard (RPS), www.cpuc.ca.gov/RPS_Homepage/, accessed February 14, 2020.*

[8] *Senate Bill 350 (2015–2016 Reg, Session) Stats 2015, chapter 547.*

following: achieve a 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.[9]

(e) Assembly Bill 32

As discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, Assembly Bill (AB) 32 (Health and Safety Code Sections 38500–38599), also known as the California Global Warming Solutions Act of 2006, commits the State to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the CPUC and the CEC with providing information, analysis, and recommendations to the California Air Resources Board (CARB) regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

(f) Assembly Bill 1493/Pavley Regulations

AB 1493 (commonly referred to as CARB's Pavley regulations) was the first legislation to regulate GHG emissions from new passenger vehicles. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks) for model years 2009–2016.[10] It was expected that the Pavley regulations would reduce GHG emissions from California's passenger vehicles by about 30 percent in 2016, while improving fuel efficiency and reducing motorists' costs.[11]

(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.[12] The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission

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[9] *Senate Bill 100 (2017–2018) Reg. Session Stats 2018, chapter 312.*

[10] *CARB, Clean Car Standards—Pavley, Assembly Bill 1943, www.arb.ca.gov/cc/ccms/ccms.htm, accessed November 18, 2020.*

[11] *CARB, Clean Car Standards—Pavley, Assembly Bill 1943, www.arb.ca.gov/cc/ccms/ccms.htm, accessed November 18 2020.*

[12] *CARB, California's Advanced Clean Cars Program, ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program, last reviewed by CARB December 18, 2019.*

vehicles for model years 2015–2025.[13] The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[14] In March 2017, CARB voted unanimously to continue with the vehicle greenhouse gas emission standards and the ZEV program for cars and light trucks sold in California through 2025.[15]

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

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, CCR, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

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

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[13] *CARB, California's Clean Cars Program, www.arb.ca.gov/msprog/acc/acc.htm, accessed November 18, 2020.*

[14] *CARB, California's Advanced Clean Cars Program, ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about. accessed November 18, 2020.*

[15] *CARB, News Release: CARB finds vehicle standards are achievable and cost-effective, ww2.arb.ca.gov/news/carb-finds-vehicle-standards-are-achievable-and-cost-effective, accessed February 14, 2020.*

[16] *California State Legislature, SB 375 Transportation planning: travel demand models: sustainable communities strategy, environmental review, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375, accessed February 14, 2020.*

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. Specific goals that would reduce transportation fuel usage include Goal 7, to actively encourage and create incentives for energy efficiency, where possible and Goal 8, to encourage land use and growth patterns that facilitate transit and active transportation. SCAG has since adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS).[17] The goals and policies of the 2016 RTP/SCS are substantially the same as those in the 2012–2035 RTP/SCS. See further discussion below.

(i) Assembly Bill 758

AB 758 requires the CEC to develop a comprehensive program to achieve greater energy efficiency in the State's existing buildings. As part of the requirements of AB 758, the AB 758 Action Plan was released March 2015 and provides a 10-year roadmap that would result in accelerated growth of energy efficiency markets, more effective targeting and delivery of building upgrade services, improved quality of occupant and investor decisions, and vastly improved performance of California's buildings in service of those who own and occupy them. The AB 758 Action Plan provides a comprehensive framework centered on five goals, each with an objective and a series of strategies to achieve it.

(j) Senate Bill 1389

SB 1389 (Public Resources Code [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 California Governor and Legislature an Integrated Energy Policy Report every two years. The most recently completed report, the 2016 Integrated Energy Policy Report Update, addresses a variety of issues including the environmental performance of the electricity generation system, landscaped-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, update on the Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios, and the *California Energy Demand Forecast*.[18]

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[17] *SCAG, 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, dated April 2016.*

[18] *CEC, 2016 Integrated Energy Policy Report Update, docketed February 28, 2017.*

(k) California Environmental Quality Act

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)). Appendix F of the CEQA Guidelines provides a list of energy-related items that may be included throughout the various chapters of an EIR. In addition, while not described or required as significance thresholds for determining the significance of impacts related to energy, 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.

(3) Regional

As discussed in Section IV.F, Land Use and Planning, of this Draft EIR, SCAG's 2016 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 RTP/SCS with the mission of providing "leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians."[19] The 2016 RTP/SCS includes land use strategies that focus on urban infill growth and walkable, mixed-use communities in existing urbanized and opportunity areas.

[19] *SCAG, 2016–2040 RTP/SCS.*

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 building types. Furthermore, the 2016 RTP/SCS includes transportation investments and land use strategies that encourage carpooling, increase transit use, active transportation opportunities, and promoting more walkable and mixed-use communities, which would potentially help to reduce VMT.

On September 1, 2020, SCAG's Regional Council adopted an updated RTP/SCS known as the 2020–2045 RTP/SCS or Connect SoCal.[20] As with the 2016–2020 RTP/SCS, the purpose of the 2020–2045 RTP/SCS is to meet the mobility needs of the six-county SCAG region over the subject planning period through a roadmap identifying sensible ways to expand transportation options, improve air quality and bolster Southern California long-term economic viability.[21] The 2020–2045 RTP/SCS has yet to be adopted by the California Air Resources Board (CARB). The goals and policies of the 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the Project would be consistent with the 2016–2020 RTP/SCS as discussed later in this section, the Project would also be consistent with the 2020–2045 RTP/SCS.[22] Because the 2020–2045 RTP/SCS was adopted by SCAG subsequent to both circulation of the Notice of Preparation (NOP) for the Project on March 29, 2019 and approval by LADOT of the Transportation Assessment for the Project on August 8, 2020, this section and the balance of this Draft EIR provided detailed analysis of Project consistency with the 2016–2020 RTP/SCS.

The 2016 RTP/SCS also establishes High-Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.[23] Local jurisdictions are encouraged to focus housing and employment growth within HQTAs to reduce VMT. The Project Site is located within a HQTA as designated by the 2016 RTP/SCS and the existing on-site Metropolitan

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[20] *SCAG, News Release: SCAG Regional Council Formally Adopts Connect SoCal, September 3, 2020.*

[21] *SCAG, News Release: SCAG Regional Council Formally Adopts Connect SoCal, September 3, 2020.*

[22] *For example, the Project would be consistent with both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS because it would increase urban density within an High Quality Transit Area (HQTA) immediately adjacent to a Metro light rail station and in close proximity to more than a dozen bus routes, would include transit-oriented development, and would implement TDM, all of which would reduce the City's per capita VMT and associated air emissions. Another example is that because the Project would be consistent with the City's existing General Plan land use designation and zoning of the Project Site, it has been accounted for in the regional growth projections in both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS.*

[23] *SCAG, 2016–2040 RTP/SCS, p. 8.*

Transportation Authority (Metro) B and D Lines (formerly the Red and Purple Lines, respectively) Pershing Square Station portal is located on-site.[24]

(4) Local

(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.

(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 5 percent by 2025, and increasing trips made by walking, biking or transit by at least 35 percent by 2025. The Sustainable City pLAn was updated in April 2019 and renamed as L.A.'s Green New Deal. The 2019 Sustainable City pLAn/L.A.'s Green New Deal has established targets, such as 100 percent renewable energy by 2045, installation of 10,000 publicly available EV chargers by 2022 and 28,000 by 2028, diversion of 100 percent of waste by 2050, and recycling of 100 percent of wastewater by 2035.

b. Existing Conditions

The Project Site is currently mostly landscaped and vacant, except for the Metro B and D Lines Pershing Square Station portal located at the southeast corner of the Project Site and the publicly accessible stairway adjacent to Angels Flight on the northern

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

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

boundary of the Project Site. To provide a conservative analysis of the Project, existing energy usage associated with the Project Site is considered to be minimal and the analysis below assumes no offset energy usage for comparison to Project.

(1) Electricity

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

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

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City of Los Angeles and many areas of the Owens Valley, serving approximately 4 million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electrical service provided by the 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.[26] In 2017, the LADWP power system experienced an instantaneous peak demand of 6,432 MW.[27]

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

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

Approximately 32 percent of LADWP's 2018 electricity purchases were from renewable sources, which is similar to the 31 percent statewide percentage of electricity purchases from renewable sources.[28]

LADWP supplies electrical power to the Project Site from electrical service lines located in the surrounding roadways and Project vicinity.

(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 21.4 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[29]

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.[30] The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.[31] Gas supply available to SoCalGas from California sources averaged 94 million cf per day in 2019 (the most recent year for which data are available).[32]

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[28] *Los Angeles Department of Water and Power 2018 Power Content Labels.*

[29] *SoCalGas, Company Profile, www.socalgas.com/about-us/company-profile, accessed February 14, 2020.*

[30] *California Gas and Electric Utilities, 2018 California Gas Report, p. 80.*

[31] *California Gas and Electric Utilities, 2018 California Gas Report, p. 80.*

[32] *California Gas and Electric Utilities, 2020 California Gas Report, p. 33.*

SoCalGas supplies natural gas to the Project Site from natural gas service lines located in the surrounding roadways and Project vicinity.

(3) Transportation Energy

According to the U.S. Energy Information Administration, transportation accounts for nearly 40 percent of California's total energy consumption in 2018.[33] In 2019, California consumed 15.4 billion gallons of gasoline and 3.1 billion gallons of diesel fuel.[34,35] Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.[36] However, the State is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. According to the California Department of Tax and Fee Administration, total statewide gasoline consumption has increased by 6 percent from 2011 to 2019.[37] However, this increase is mainly due to population increases as the per capita gasoline consumption is showing a downward trend.[38] The CEC, also predicts that there will be an increase in use of alternative fuels, such as natural gas, biofuels, and electricity. According to CARB's EMFAC Web Database, Los Angeles County on-road transportation sources consumed 4.1 billion gallons of gasoline and 634 million gallons of diesel fuel in 2018.[39]

3. Project Impacts

This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. The Project's estimated energy consumption was calculated using

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[33] *U.S. Energy Information Administration. California State Profile and Energy, Consumption by Sector, www.eia.gov/state/?sid=CA#tabs, accessed November 18, 2020.-2.*

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

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

[36] *CEC, 2020-2021 Investment Plan Update for the Clean Transportation Program, October 2020.*

[37] *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed November 18, 2020.*

[38] *Eno Center for Transportation, How Have Different State Populations Changed Their Gasoline Consumption?, www.enotrans.org/article/how-have-different-state-populations-changed-their-gasoline-consumption/, accessed November 18, 2020.*

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

the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Specific analysis methodologies are discussed below.

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, as well as the *L.A. CEQA Thresholds Guide.* Appendix F of the CEQA Guidelines was 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."

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

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

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

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

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

5. The effects of the project on energy resources.

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

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

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. In addition, the Project's consistency with the SCAG 2016 RTP/SCS which includes goals to reduce VMT and corresponding decrease in fuel consumption, is discussed below and in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR.

b. Methodology

(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 (primarily related to the excavation period) was calculated using CalEEMod.[40] Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was calculated based on data provided in South Coast Air Quality Management District (SCAQMD) construction surveys (i.e., construction activity, horsepower, load factor, and hours of use per day).[41] The SCAQMD construction surveys identify the use of diesel generators to supply construction sites with electrical power.

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

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

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[40] *California Air Pollution Control Officers Association, CalEEMod™ version 2016.3.2 User's Guide, November 2017.*

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

on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix B.2 of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of the SCAQMD *CEQA Air Quality Handbook*. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC 2017 model (EMFAC2017). EMFAC provides the total annual VMT and 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 Appendices B.2 and 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. Vehicle usage in this analysis was based on the *Transportation Impact Study for the Angels Landing Project, City of Los Angeles* dated February 2020 (Traffic Study), prepared by Gibson Transportation Consulting, Inc. (see Appendix J.1 of this Draft EIR). As discussed therein, 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 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 EMFAC2017. 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 Appendices B.2 and 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 2026 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's energy demands. Finally, the capacity of local infrastructure to accommodate the Project's estimated electricity and natural gas demand was assessed.

c. Project Design Features

The Project has been designed and would be constructed to incorporate environmentally sustainable building features and construction protocols required by the Los Angeles Green Building Code and CALGreen. These standards would reduce energy usage associated with the Project. The sustainability features to be incorporated into the Project would include, but would not be limited to high efficiency plumbing fixtures and weather-based controller and drip irrigation systems to promote a reduction of indoor and outdoor water use; Energy Star–labeled appliances; and water-efficient landscape design. Furthermore, the design of the new buildings would comply with 2019 Title 24, Part 6, California Code requirements. As discussed above, the 2019 Title 24 Standards are "challenging but achievable design and construction practices" that represent "a major step towards meeting the Zero Net Energy (ZNE) goal."

The Project would include project design features designed to improve energy efficiency as set forth in Section IV.E, Greenhouse Gas Emissions, and Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure (e.g., design per Leadership in Energy and Environmental Design (LEED)® Silver certification requirements, provision of electric vehicle charging stations, prohibition on natural gas-fueled fireplaces, etc.). Furthermore, the Project would represent a high-density mixed-use infill project within a SCAG-designated HQTA and City-designed Transportation Priority Area (TPA) adjacent to an existing Metro station, which would together maximize transit and other alternative modes of transportation, minimize VMT, and result in associated reductions in motor vehicle-related fuel use. In addition, the Project would be designed to further reduce vehicular trips to the Project Site through various Transportation Demand Management (TDM) strategies (e.g., bicycle infrastructure) as set forth in Section IV.J, Transportation.

d. Analysis of Project Impacts

The Project, which would involve development of two towers (referred to as Tower A and Tower B) atop a podium structure and subterranean parking. The Project includes 180 residential for-sale condominium units, 252 residential apartments, two hotels with a combined total of 515 guest rooms (as well as ballrooms, meeting rooms, amenity space, and 12,170 square feet of commercial (restaurant) space), and 72,091 square feet of commercial (retail/restaurant) space. It is anticipated that Project construction could commence in September 2022 and be completed in June 2026.

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

(1) Impact Analysis

The following analysis considers the eight criteria identified in the Thresholds of Significance subsection above to determine whether Threshold (a) would be exceeded.

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

Project construction activities would start with the clearing of the existing landscaping on the Project Site. This would be followed by grading and excavation for the subterranean parking. The Project would require excavation up to approximately 70 feet below ground surface as measured from the surface elevation of Hill Street adjacent to the Project Site. It is estimated that approximately 334,000 cubic yards of export material would be hauled from the Project Site during the excavation phase. Building foundations would then be laid, followed by building construction, paving/concrete installation, and landscape installation.

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).[42]

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, the Project is a major development consisting of two high rise towers that would not be removed in the foreseeable future. Therefore, analysis of energy usage related to Project removal activities would be speculative. For this reason, energy usage related to Project removal is not warranted and 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,

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

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

As shown in Table IV.C-1 on page IV.C-20, a total of 49 MWh of electricity, 206,976 gallons of gasoline, and 473,733 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 LADWP and would be obtained from the existing electrical lines that connect to the Project Site. This would be consistent with suggested measures in the *L.A. CEQA Thresholds Guide* to use electricity from power poles rather than temporary gasoline or diesel powered generators.

As shown in Table IV.C-1, a total of approximately 49 MWh 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. Consistent with Mitigation Measure AIR-MM-6, the Project would include the use of solar-powered generators, if needed at all to supplement the power from existing electrical lines connected to the LADWP grid, and to the extent such generators are commercially available and feasible, if generators be required during construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements that limit the wattage allowed per specific area, which would result in the conservation of energy.[43] As such, the demand for electricity during construction would not cause wasteful, inefficient, and unnecessary use of energy.

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

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

Fuel Type	Quantity
Electricity	
Water Consumption	13 MWh
Lighting, electronic equipment, and other construction activities necessitating electrical power[b]	36 MWh
Total Electricity	**49 MWh**
Gasoline	
On-Road Construction Equipment	206,976 gallons
Off-Road Construction Equipment	0 gallons
Total Gasoline	**206,976 gallons**
Diesel	
On-Road Construction Equipment	288,709 gallons
Off-Road Construction Equipment	185,024 gallons
Total Diesel	**473,733 gallons**

kWh = kilowatt hours

[a] *Detailed calculations are provided in Appendices B.2 and 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.

The estimated construction electricity usage would represent approximately 0.6 percent of the estimated net annual operational demand under the Project which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.[44]

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 for natural gas generated by construction.

[44] *The percentage is derived by taking the total amount of electricity usage during construction (49 MWh) and dividing that number by the total amount of net electricity usage during operation (8,213 MWh) to arrive at 0.6 percent.*

Transportation Energy

The petroleum-based fuel use summary provided above in Table IV.C-1 on page IV.C-20 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendices B.2 and D, of this Draft EIR. As indicated in Table IV.C-1, on- and off-road vehicles would consume an estimated 206,976 gallons of gasoline and approximately 473,733 gallons of diesel fuel throughout the Project's construction. For comparison purposes, the fuel usage during Project construction would represent approximately 0.004 percent of the 2022 (construction start year) annual on-road gasoline-related energy consumption, and 0.04 percent of the 2022 annual diesel fuel-related energy consumption, in Los Angeles County, as shown in Appendices B.2 and 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. In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to federal fuel efficiency requirements. Therefore, Project construction activities would comply with existing energy standards with 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.

(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 8,213 MWh of electricity per year, 22,478,182 cf of natural gas per year, 473,673 gallons of gasoline per year, and 95,933 gallons of diesel fuel per year.

Electricity

As shown in Table IV.C-2, with compliance with 2019 CALGreen requirements, buildout of the Project would result in a projected net increase in the on-site demand for electricity totaling approximately 8,213 MWh per year under the Project. In addition to complying with CALGreen, the Project Applicant would also implement the Applicant would also implement Project Design Feature GHG-PDF-1 in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would include

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

Source	Estimated Energy Demand[b]
Electricity[c]	
Building	7,548 megawatt hours
Water[d]	665 megawatt hours
Total Electricity	8,213 megawatt hours
Natural Gas	
Building[e]	22,478,182 cubic feet
Total Natural Gas	**22,478,182 cubic feet**
Transportation	
Gasoline	473,673 gallons
Diesel	95,933 gallons
Total Transportation	569,606 gallons

[a] *Detailed calculations are provided in Appendices B.2 and D of this Draft EIR.*

[b] *Electricity and natural gas estimates assume compliance with applicable CALGreen requirements. Transportation fuel estimates include project characteristics consistent with CAPCOA guidance measures.*

[c] *Project Design Feature GHG-PDF-2, discussed further in Section IV.E, Greenhouse Gas Emissions, states that that the Project would provide 5 percent of code-required parking spaces with EV charging equipment and a total of 20 percent of code-required parking spaces wired for EV ready charging stations. Providing infrastructure for EV in itself does not result in additional electricity usage. These project design features were not included in the electricity calculation for the Project electricity usage.*

[d] *Calculations assume compliance with Project Design Feature WAT-PDF-1.*

[e] *Energy usage was calculated consistent with the requirements of Project Design Feature GHG-PDF-1*

Source: Eyestone Environmental, 2020.

features that are capable of meeting the standards of LEED® Silver or equivalent green building standards; and Project Design Feature WAT-PDF-1 in Section IV.L.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, which states that the Project would incorporate water conservation features, such as high efficiency toilets with a flush volume of 1.0 gallons or less and showerheads with a maximum flow rate of 1.5 gallons per minute or less (does not apply to proposed hotel rooms/uses), among others. These measures would further reduce the Project's energy demand.

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.[45] 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 (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 2026–2027 fiscal year (the Project's buildout year) will be 23,807 GWh of electricity.[46,47] As such, the Project-related net increase in annual electricity consumption of 8,213 MWh per year under the Project would represent only approximately 0.03 percent of LADWP's projected sales in 2026. In addition, as previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

Natural Gas

As provided in Table IV.C-2 on page IV.C-22, with compliance with 2019 Title 24 standards and applicable CALGreen requirements, buildout of the Project is projected to generate a net increase in the on-site demand for natural gas totaling approximately 22,478,182 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), the Project would implement project design features to further reduce energy use. Specifically, the Applicant would implement Project Design Feature 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 capable of meeting the standards of LEED® Silver or equivalent green building standards, which entails implementing conservation features to reduce natural gas usage. Such features may include use of efficient water heaters, cooking equipment and other major support appliances. Furthermore, the Project Applicant would implement Project Design Feature GHG-PDF-3 in Section IV.E, Greenhouse Gases, of this Draft EIR, which states that the Project would prohibit the use of natural gas-fueled fireplaces in the proposed residential units except for in some of the Tower A units on levels 57 through 61.

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[45] *Los Angeles Department of Water and Power 2018 Power Content Labels.*

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

[47] *LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1, p. A-6.*

As stated above, the Project's estimated net increase in demand for natural gas is 22,478,182 cf per year, or approximately 61,584 cf per day under the Project. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.3 billion cf/day in 2026 (the Project's buildout year).[48] The Project would account for only approximately 0.003 percent of the 2026 forecasted consumption in SoCalGas' planning area. In addition, as described above, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. As noted above, the Project Site is located in a 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. The Project Site is also located in a City-designated TPA.[49] As discussed in Section IV.J, Transportation, of this Draft EIR, the Project Site is transit accessible and is close to many bus transit lines, rail lines, and local shuttle service. Public transit service in the vicinity of the Project Site includes Metro's B and D Lines and numerous local and regional bus lines, which provide connections to other Downtown subway stations. In particular, the Metro B and D Lines Pershing Square Station portal is located on the southeastern corner of the Project Site. There is also a bus stop along Hill Street, across from the Project Site, which serves Metro Bus Lines 2/302, 4, 10/48, 81, 90/91, and 94 and the Los Angeles Department of Transportation (LADOT)'s Commuter Express 419. An additional bus stop along Hill Street, near 3rd Street, serves Metro Bus Lines 2/302, 4, 10/48, and 794. In addition, the adjacent Angels Flight, a historic funicular railway, provides a connection between Hill Street and California Plaza above Olive Street. The Project would also provide required short- and long-term bicycle parking spaces in compliance with the requirements of the Los Angeles Municipal Code (LAMC). The increase in transit accessibility and the bicycle parking spaces provided on-site would

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[48] *California Gas and Electric Utilities, 2020 California Gas Report pp. 144–145. Interpolated between 2021 and 2035 estimates.*

[49] *The Project Site is also located in a Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Also refer to the City's ZIMAS system confirming the location of the Project Site within a Transit Priority Area.*

further reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation. The Project design would also provide pedestrian access that minimizes barriers and links the Project Site with external streets to encourage people to walk instead of drive.

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 developments.[50] The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix D, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 52 percent reduction in overall VMT and resultant transportation fuel consumption

Based on the above, the Project 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 net petroleum-based fuel usage would be approximately 473,673 gallons of gasoline and 95,933 gallons of diesel per year, or a total of 569,606 gallons of petroleum-based fuels annually under the Project.

(iii) Summary of Energy Requirements and Energy Use Efficiencies

CEQA Guidelines Appendix F recommends quantification of the project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed. The Project's energy requirements were calculated based on the methodology contained in CalEEMod for

[50] *USEPA, Mixed-Use Trip Generation Model. www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed November 18, 2020.*

electricity and natural gas usage. Project VMT data was calculated based on the LADOT VMT Calculator. The calculations also took into account energy efficiency measures such as Title 24, CALGreen and vehicle fuel economy standards. Table IV.C-1 and Table IV.C-2 on pages IV.C-20 and IV.C-22, respectively, provide a summary of Project construction and operational energy usage, respectively. During Project construction activities, a net total of 49 MWh of electricity would be consumed along with 680,708 gallons of transportation fuel (gasoline and diesel). During Project operations, a net total of 8,213 MWh of electricity, 22,478,182 cf of natural gas, and 569,606 gallons of transportation fuel would be consumed on an annual basis under the Project. The implementation of project design features and energy efficiency measures would reduce operational electricity usage by 10 percent, natural gas usage by 5 percent, and transportation fuel usage by 52 percent when compared to a project without energy efficiency measures.

(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 would represent approximately 0.6 percent of the estimated net annual operational demand under the Project which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.[51] Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus there would be no demand generated by construction. Transportation fuel usage during Project construction activities would represent only approximately 0.004 percent of gasoline usage and 0.04 percent of diesel usage within Los Angeles County, respectively. As energy consumption during Project construction activities would be negligible, the Project would not likely affect regional energy consumption during the construction period, and would not in itself require additional capacity.

[51] *The percentage is derived by taking the total amount of electricity usage during construction (49 MWh) and dividing that number by the total amount of net electricity usage during operation (8,213 MWh) for the Project.*

(ii) Operation

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2026–2027 fiscal year (the Project's buildout year) will be 23,807 GWh of electricity.[52,53] As such, the Project-related net increase in annual electricity consumption of 8,213 MWh per year under the Project would represent only approximately 0.03 percent of LADWP's projected sales in 2026.[54] Furthermore, LADWP has confirmed that the Project's electricity demand can be served by the facilities in the Project area.[55] 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 increase in demand for natural gas is 22,478,182 cf per year, or approximately 61,584 cf per day under the Project. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.3 billion cf/day in 2026 (the Project's buildout year).[56] The Project would account for only approximately 0.003 percent of the 2026 forecasted consumption in SoCalGas' planning area. In addition, as described above, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

At buildout, the Project would result in an increase of 473,673 gallons of gasoline and 95,933 gallons of diesel per year, or a total of 569,606 gallons of petroleum-based fuels annually under the Project. As shown in Appendix D of this Draft EIR. Transportation fuel usage during Project operational activities would represent approximately 0.009 percent of gasoline and diesel usage within Los Angeles County.

As energy consumption during Project operations would be negligible and energy requirements are within LADWP's and SoCalGas' service provision, Project operational impacts on energy usage would be less than significant.

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

[53] *LADWP, 2017 Power Strategic Long-Term Resources Plan, December 2017, Appendix A, Table A-1, p. A-6.*

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

[55] *KPFF Consulting Engineers, Utility Infrastructure Technical Report: Water, Wastewater, and Energy for the Angels Landing Mixed-Use Project, December, 2020. Refer to Appendix L of this Draft EIR.*

[56] *California Gas and Electric Utilities, 2020 California Gas Report pp. 144–145. Interpolated between 2021 and 2035 estimates.*

(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.[57] In 2018, the LADWP power system experienced a peak of 6,195 MW on July 6, 2018.[58] The LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2017, the base case peak demand for the power grid is 5,820 MW in 2018.[59] Under peak conditions, Project operation would result in net increase of 8,213 MWh on an annual basis which is equivalent to a daily peak load of 1,733 kW. In comparison to the LADWP power grid base peak load of 5,820 MW in 2017, the Project Site net energy demand would represent only approximately 0.03 percent of the LADWP base peak load conditions for the Project.[60] In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical demand associated with the Project.[61] Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid.

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

Although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (greater than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements (includes limits on the wattage allowed per specific area). In addition, construction equipment would comply with energy efficiency requirements contained in the Federal Energy Independence and Security Act or previous energy policy acts for electrical motors and equipment.[62] 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 requirements and Los Angeles Green Building Code. The Project would also provide any additional energy conservation features/measures required to achieve LEED Silver certification. Therefore, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage.

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

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

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

[60] *Eyestone Environmental, Energy Calculations for Angels Landing Project. See Appendix D of this Draft EIR.*

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

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

With regard to transportation fuels, trucks and equipment used during Project construction activities, the Project would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy. 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. Therefore, Project construction and operation activities would have a negligible effect on future energy generation capacity.

Natural gas supplied to the Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California region are obtained from locations throughout the western United States as well as Canada.[63] According to the U.S. Energy Information Administration (EIA), the United States currently has over 92 years of natural gas reserves based on 2018 consumption.[64] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

Transportation fuels (gasoline and diesel) are produced from crude oil which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of world consumption.[65] The Project would also comply with CAFE fuel economy standards, which would result in more

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

[64] *U.S. Energy Information Administration, Frequently Asked Questions, www.eia.gov/tools/faqs/faq.php?id=58&t=8, accessed November 18, 2020.*

[65] *bp Global, Oil Reserves, www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html#oil-reserves, accessed February 14, 2020.*

efficient use of transportation fuels (lower consumption). Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in Subsection 2.a.(2)(c), 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. Accordingly, LADWP is required to procure at least 50 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, 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.[66] This represents the available off-site renewable sources of energy that would meet the Project's energy demand. As previously discussed, the Project's use of renewable energy would indirectly reduce use of fuels required for electricity generation (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 Section 110.10 of Title 24, which includes mandatory requirements for solar-ready buildings. 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.[67]

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

As discussed above in Subsection 3.c., the Project would include project features to reduce VMT during operational activities. The Project's high-density design and proximity to job centers and retail uses would allow for more residents to live closer to work and shopping areas, thereby reducing VMT. The Project design, which includes dedicated bicycle parking facilities and an improved streetscape with pedestrian amenities, would also encourage non-automotive forms of transportation such as walking or biking to destinations. In addition, the Project Site is well served by public transit and the Metro B

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[66] *Los Angeles Department of Water and Power 2018 Power Content Labels.*

[67] *CEC, Wind Resource Area & Wind Resources, website: www.energy.ca.gov/maps/renewable/wind.html, updated October 16, 2017.*

and D Lines Pershing Square Station portal is located on the southeastern corner of the Project Site. Moreover, the Project would be designed to further reduce vehicular trips to the Project Site through various TDM strategies as set forth in Section IV.J, Transportation. As discussed in detail in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, these measures would reduce VMT by approximately 52 percent in comparison to a standard project as estimated by CalEEMod, which would result in a corresponding reduction in the Project's petroleum-based fuel usage. Therefore, the Project would encourage the use of efficient transportation alternatives.

(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 LA Green Building Code requires compliance with CALGreen and California's Building Energy Efficiency Standards (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 and other measures required to achieve LEED Silver certification. 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, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

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 its LA Green Plan/ClimateLA in 2007 which outlines 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 the 2019 CALGreen Code and California's Building Energy Efficiency Standards, which have been incorporated into the City's Green Building Code.

The Project would be consistent with SCAG's regional planning strategies that address energy conservation. As discussed above and in Section IV.F, Land Use and Planning, of this Draft EIR, SCAG's 2016 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 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 RTP/SCS. Most notably, the Project would reduce the VMT throughout the region and encourage use of alternative modes of transportation by locating complementary new residential, hotel, retail, and restaurant uses in proximity to other existing off-site residential, office, retail and restaurant uses. The Project would provide greater proximity to neighborhood services, jobs, and residences and would be well-served by existing public transportation, including Metro and LADOT bus lines and rail lines. This is evidenced by the Project Site's location within a designated HQTA and TPA.[68] In addition, the Project would be designed to further reduce vehicular trips to the Project Site through various TDM strategies (e.g., bicycle infrastructure) as set forth in Section IV.J, Transportation.

The introduction of new housing and job opportunities within a designated HQTA and TPA, as proposed by the Project, is consistent with numerous policies in the 2016 RTP/SCS related to locating new housing and jobs near transit. The 2016 RTP/SCS would result in an estimated 8-percent decrease in per capita transportation GHG emissions by 2020, an 18-percent decrease in per capita transportation GHG emissions by 2035, and a 21-percent decrease in per capita transportation GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in transportation per capita GHG emissions by 2040 (an additional 3-percent reduction in the 5 years between 2035 [18 percent] and 2040 [21 percent]), the 2016 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with

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[68] *The Project Site is also located in Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Also refer to the City's ZIMAS system confirming the location of the Project Site within a Transit Priority Area.*

respect to meeting the State's GHG emission reduction goals. Subsequent to adoption of the 2016 RTP/SCS, CARB adopted in 2018 a new target requiring a 19-percent decrease in transportation per capita GHG emissions for the SCAG region by 2035. It is expected that this new target will be incorporated into the next RTP/SCS. The 2016 RTP/SCS and/or the next RTP/SCS are therefore expected to fulfill and exceed SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

Thus, consistent with the 2016 RTP/SCS, the Project would reduce VMT by 52 percent in comparison to a standard project as estimated by CalEEMod, thereby reducing the Project's petroleum-based fuel usage. In addition, the Project would comply with state energy efficiency requirements including Title 24 energy efficiency requirements and would use electricity from LADWP, which has a current renewable energy mix of 30 percent. 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.

On September 1, 2020, SCAG's Regional Council adopted an updated RTP/SCS known as the 2020–2045 RTP/SCS or Connect SoCal.[69] As with the 2016–2020 RTP/SCS, the purpose of the 2020–2045 RTP/SCS is to meet the mobility needs of the six-county SCAG region over the subject planning period through a roadmap identifying sensible ways to expand transportation options, improve air quality and bolster Southern California long-term economic viability.[70] The 2020–2045 RTP/SCS has yet to be adopted by the California Air Resources Board (CARB). The goals and policies of the 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the Project would be consistent with the 2016–2020 RTP/SCS, the Project would also be consistent with the 2020–2045 RTP/SCS.[71] Because the 2020–2045 RTP/SCS was adopted by SCAG subsequent to both circulation of the Notice of Preparation (NOP) for the Project on March 29, 2019 and approval by LADOT of the Transportation Assessment for the Project on August 8, 2020, this section and the balance of this Draft EIR provided detailed analysis of Project consistency with the 2016–2020 RTP/SCS.

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[69] *SCAG, News Release: SCAG Regional Council Formally Adopts Connect SoCal, September 3, 2020.*

[70] *SCAG, News Release: SCAG Regional Council Formally Adopts Connect SoCal, September 3, 2020.*

[71] *For example, the Project would be consistent with both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS because it would increase urban density within an High Quality Transit Area (HQTA) immediately adjacent to a Metro light rail station and in close proximity to more than a dozen bus routes, would include transit-oriented development, and would implement TDM, all of which would reduce the City's per capita VMT and associated air emissions. Another example is that because the Project would be consistent with the City's existing General Plan land use designation and zoning of the Project Site, it has been accounted for in the regional growth projections in both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS.*

(i) Conclusion

As demonstrated in the analysis above, the Project would not result in potentially significant environmental impact due to the wasteful, inefficient, and unnecessary consumption of energy resources during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or capacity. The Project's energy usage during based 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, and would include energy conservation measures that exceed requirements, such as those associated with achieving LEED® Silver certification. In summary, the Project's energy demands would not significantly affect available energy supplies and would comply with existing energy efficiency standards. **In summary, the Project's energy demands would comply with existing energy efficiency standards and would not cause wasteful, inefficient, or unnecessary use of energy. Therefore, Project impacts related to energy use under Threshold (a) would be less than significant during construction and operation.**

(2) Mitigation Measures

Project-level impacts related to Threshold (a) would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to Threshold (a) were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

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

(1) Impact Analysis

As discussed in Subsection 3.d(1)(h) above, the energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, CALGreen, and the City of Los Angeles Green Building Code. As these conservation policies are mandatory under the City of LA Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency. In addition, the Project would

implement measures to achieve LEED® Certified Silver equivalency which would exceed Title 24 energy efficiency requirements.

With regard to transportation related energy usage, the Project would comply with goals of the SCAG's 2016 RTP/SCS, which incorporate GHG emissions reduction targets established by SB 375. The Project's infill nature, 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. Implementation of TDM strategies (e.g., bicycle infrastructure) as set forth in Section IV.J, Transportation, and Project Design Features GHG-PDF-2 (minimum of 20 percent of total code-required parking spaces shall be capable of supporting future EVSE and 5 percent equipped with EV charging stations) would also serve to reduced transportation fuel consumption. In addition, vehicle trips generated during Project operation would comply with CAFE 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 under Threshold (b) would be less than significant.**

(2) Mitigation Measures

Project-level impacts related to Threshold (b) would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project-level impacts related to Threshold (b) were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

e. Cumulative Impacts

(1) Impact Analysis

(a) Wasteful, Inefficient and Unnecessary Use of Energy

Cumulative impacts occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. Based on the information presented in Section III, Environmental Setting, of this Draft EIR, there are 50 related

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

(i) Electricity

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 meet 2019 Title 24 energy standards and LEED Silver certification requirements. Furthermore, other future development projects (related projects) would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and state energy standards under 2019 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.[72] This represents the available off-site renewable sources of energy that could meet the Project's and related projects energy demand. Thus, the Project and related projects would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **Therefore, the Project and the related projects would not result in significant cumulative impacts related to the wasteful, inefficient and unnecessary use of electricity. Furthermore, the Project's contribution to cumulative impacts associated with this issue would not be cumulatively considerable. As such, cumulative impacts with respect to this issue would be less than significant.**

[72] *Los Angeles Department of Water and Power 2018 Power Content Labels.*

(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 incorporate additional energy efficiency measures capable of exceeding Title 24 energy efficiency standards and achieving LEED Silver Certification as required by Project Design Feature GHG-PDF-1 and would reduce natural gas usage by limiting the number of natural gas fueled fireplaces, as required by Project Design Feature GHG-PDF-3. Furthermore, future development projects (related projects) would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and state energy standards under Title 24, and incorporate mitigation measures, as necessary. Thus, the Project and related projects would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **Therefore, the Project and the related projects would not result in significant cumulative impacts related to potentially significant environmental impacts due to wasteful, inefficient and unnecessary use of natural gas. Furthermore, the Project's contribution to cumulative impacts associated with this issue would not be cumulatively considerable. As such, cumulative impacts with respect to this issue 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 an estimated total of 473,673 gallons of gasoline and 95,933 gallons of diesel per year, or a total of 569,606 gallons of petroleum-based fuels per year under the Project. For comparison purposes, the transportation-related fuel usage for the Project would represent only approximately 0.009 percent of the 2026 annual on-road gasoline- and diesel-related energy consumption in Los Angeles County under the Project, as shown in Appendix D, of this Draft EIR.

Like the Project, the related projects would also be infill projects that would locate residential and commercial uses near other similar uses, which would reduce VMT as well as consumption of transportation fuel. The Project and some, if not the majority of related projects, would also implement TDM measures, which would reduce single-occupancy motor vehicle use, VMT, and associated fuel consumption. As analyzed above, Project transportation fuel usage would represent a very small percentage of total fuel consumption within Los Angeles County. While it is speculative to assess transportation fuel usage from related projects, it is expected that cumulative transportation fuel usage resulting from the Project and related projects would be consistent with projections discussed above.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT which would reduce reliance on petroleum fuels. According to the California Department of Tax and Fee Administration, total statewide gasoline consumption has increased by 6 percent from 2011 to 2019. [73] However, this increase is mainly due to population increases as the per capita gasoline consumption is showing a downward trend.[74] The CEC, also predicts that there will be an increase in 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 and 2020–2045 RTP/SCS. Specifically, the Project would locate complementary new residential, hotel, retail, and restaurant uses in proximity to other existing off-site residential, office, retail and restaurant uses. The Project would provide greater proximity to neighborhood services, jobs, and residences and would be well-served by existing public transportation, including Metro and LADOT bus lines and rail lines. The Project also would introduce new housing and job opportunities within a HQTA and TPA, which is consistent with numerous policies in the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS related to locating new jobs near transit.[75] These features would serve to reduce VMT and associated transportation fuel consumption, thereby reducing GHG emissions.[76] Although there are no per capita GHG

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[73] *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed November 18, 2020.*

[74] *Eno Center for Transportation, How Have Different State Populations Changed Their Gasoline Consumption?, www.enotrans.org/article/how-have-different-state-populations-changed-their-gasoline-consumption/, accessed November 18, 2020.*

[75] *The Project Site is also located in Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Also refer to the City's ZIMAS system confirming the location of the Project Site within a Transit Priority Area.*

[76] *Implementation of Project Design Features GHG-PDF-2 (minimum of 20 percent of total code-required parking spaces shall be capable of supporting future EVSE and five percent equipped with EV charging stations) would also serve to reduced transportation fuel consumption.*

emission reduction targets for passenger vehicles set by CARB for 2040, the 2016 RTP/SCS and 2020–2045 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[77] 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 transportation per capita GHG emissions by 2035. Implementation of the 2020–2045 RTP/SCS will 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 would result in a VMT reduction of approximately 52 percent in in comparison to a Project without project design features, which would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS, as well as CARB's updated 2035 target.

Although the 2016-2020 RTP/SCS and 2020–2045 are 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 and 2020–2045 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 and 2020–2045 RTP/SCS. **Therefore, the Project and the related projects would not result in significant cumulative impacts related to wasteful, inefficient and unnecessary use of transportation fuel. Furthermore, the Project's contribution to cumulative impacts regarding this issue would not be cumulatively considerable. Therefore, cumulative impacts with respect to this issue would 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 LA 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 and 2020–2045 RTP/SCS. The Project would be a mixed-use infill development located near major job centers and public transit which

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

would result in VMT reductions. As discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project would result in a VMT reduction of approximately 52 percent in comparison to a standard project as estimated by CalEEMod, which would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS and 2020-20245 RTP/SCS as well as CARB's updated 2035 target. **Therefore, the Project is consistent with the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS, and would not contribute considerably to cumulative impacts with regard to consistency with energy conservation plans.**

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

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