IV. Environmental Impact Analysis

C. Energy

1. Introduction

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

In accordance with the applicable Appendix G sections and utilizing guidance from Appendix F of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). Detailed energy calculations can be found in Appendix E of this Draft EIR. Information found herein, as well as other aspects of the Project's energy implications, are discussed in greater detail elsewhere in this Draft EIR, including in Section II, Project Description; Section IV.E, Greenhouse Gas Emissions; and Section IV.M.1, Water Supply and Infrastructure, of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

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

- Energy Independence and Security Act of 2007

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

(1) Federal

(a) Energy Independence and Security Act of 2007

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

- Increasing the supply of alternative fuel sources by setting mandatory Renewable Fuel Standards (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 United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) actions described below (i) establishing miles per gallon (mpg) targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

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

(b) Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 CFR Parts 531 and 533) reduce energy consumption by increasing the fuel economy of cars and light trucks. The NHTSA and USEPA jointly administer the CAFE standards. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[2] When these standards are raised, automakers respond by creating a more fuel-efficient fleet. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 mpg. Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to

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

[2] *For more information on the CAFE standards, refer to www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy, accessed October 4, 2021.*

23 percent over the 2010 baseline, depending on the vehicle type.[3] USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5- to 25-percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[4]

(c) Federal Energy Policy and Conservation Act

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

(2) State

(a) Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code (PRC) Sections 25300–25323; SB 1389) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (PRC Section 25301[a]). The 2017 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California including energy efficiency, strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan, building energy efficiency standards, the impact of drought on California's energy system, achieving 50 percent renewables by 2030, the California Energy Demand Forecast, the Natural Gas Outlook, the Transportation Energy Demand Forecast, Alternative and Renewable Fuel and Vehicle Technology Program benefits updates, update on electricity infrastructure in Southern California, an update on trends in California's sources of crude oil, an update on California's nuclear plants, and other energy issues.

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

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

(b) Renewable Portfolio Standard

First established in 2002 under SB 1078, California's Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030.[5] SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation. On September 10, 2018, former Governor Jerry Brown signed SB 100, which further increased California's RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030, and that the California Air Resources Board (CARB) should plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.[6]

(c) California Building Standards

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

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020.[7] The 2019 Title 24 standards continue to improve upon the 2016 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings which include efficiency improvements to the residential standards for attics, walls, water heating, and lighting, and efficiency improvements to the non-residential standards include alignment with the

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

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

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

American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2017 national standards.[8]

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

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11) are commonly referred to as the CALGreen Code. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.[9] The 2019 CALGreen Code improves upon the 2016 CALGreen Code by updating standards for bicycle parking, electric vehicle charging, and water efficiency and conservation. The 2019 CALGreen Code went into effect on January 1, 2020. Refer to Section IV.E, Greenhouse Gas Emissions, of this Draft EIR for additional details regarding these standards.

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

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO–) emissions, Assembly Bill (AB) 1493 (commonly referred to as CARB's Pavley regulations), enacted on July 22, 2002, requires CARB to set greenhouse gas (GHG) emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017–2025.[10,11] In March 2020, the U.S. Department of Transportation and the US EPA issued the SAFE Vehicles Rule, which amends existing CAFE standards and tailpipe CO_2 emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026. Refer to Section IV.E, Greenhouse Gas Emissions, of this Draft EIR for additional details regarding this regulation.

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

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

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

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

(e) California Air Resources Board

(i) Scoping Plan

AB 32 required CARB to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code [HSC] Section 38561 (h)). The 2008 Climate Change Scoping Plan proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."[12] The 2008 Climate Change Scoping Plan had a range of GHG reduction actions which included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a Cap-and-Trade Program, and an AB 32 implementation fee to fund the program.

The 2008 Climate Change Scoping Plan called for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required to include more renewable energy sources through implementation of the RPS.[13] Additionally, the 2008 Climate Change Scoping Plan emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicates that substantial savings of electricity and natural gas will be accomplished through "improving energy efficiency by 25 percent."

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

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

> *A Green Building strategy will produce greenhouse gas savings through buildings that exceed minimum energy efficiency standards, decrease consumption of potable water, reduce solid*

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

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

waste during construction and operation, and incorporate sustainable materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health, and minimize impacts to the environment.

- The importance of supporting the Department of Water Resources' work to implement the Governor's objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The Climate Change Scoping Plan notes that water use requires significant amounts of energy, including approximately one-fifth of statewide electricity.

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

(ii) Advanced Clean Cars Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations.[14] The program requires a greater number of zero-emission vehicle (ZEV) models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the ZEV regulations to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025. In particular, implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered. Effective November 26, 2019, the federal SAFE Vehicles Rule Part One: One National Program withdraws the California waiver for the GHG and ZEV programs under section 209 of the CAA, which revokes California's authority to implement the Advanced Clean Cars and ZEV mandates. In particular, implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered.

[14] *CARB, California's Advanced Clean Cars Program, www.arb.ca.gov/msprog/acc/acc.htm, last reviewed by CARB January 18, 2017.*

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

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

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

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

(f) Sustainable Communities Strategy (SB 375)

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associate with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle

miles traveled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

(3) Regional

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

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

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

(4) Local

(a) Green New Deal

On April 8, 2015, Mayor Eric Garcetti released the Sustainable City pLAn which includes both short-term and long-term aspirations through the year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others.[15] Specific targets included the construction of new housing units

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

within 1,500 feet of transit by 2017, reducing VMT per capita by five percent by 2025, and increasing trips made by walking, biking or transit by at least 35 percent by 2025. The Sustainable City pLAn was intended to be updated every four years.

In April 2019, Mayor Eric Garcetti released an update to the Sustainable City pLAn renamed as L.A.'s Green New Deal I Sustainability Plan 2019 (Green New Deal), which consist of a program of actions designed to create sustainability-based performance targets through 2050 to advance economic, environmental, and equity objectives.[16] The Green New Deal augments, expands, and elaborates in more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

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

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types by 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 thousand British thermal units (mBTU) per square foot in 2015).
- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/ matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric vehicles (EVs) and ZEVs in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.

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

- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.

- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 pounds of waste generated per capita per day in 2011).

- Eliminate organic waste going to landfill by 2028.

- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.

- Ensure the proportion of Angelenos living within 0.5 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) Green Building Code

Chapter IX of the Los Angeles Municipal Code (LAMC) is referred to as the "Los Angeles Green Building Code," which incorporates by reference portions of the CALGreen Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. The Los Angeles Green Building Code includes mandatory measures for newly constructed nonresidential and high-rise residential buildings. The Los Angeles Green Building Code includes some requirements that are more stringent than State requirements such as increased requirements for EV charging spaces and water efficiency, which results in potentially greater energy demand reductions from improved transportation fuel efficiency and water efficiency.

(c) City of Los Angeles Mobility Plan 2035

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the most recent amendment on September 7, 2016.[17] The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their streets. The Mobility Plan includes five main goals that define the City's high-level mobility priorities:

(1) Safety First;

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

(2) World Class Infrastructure;

(3) Access for All Angelenos;

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

(5) Clean Environments and Healthy Communities.

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

b. Existing Conditions

(1) Electricity

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

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

The Los Angeles Department of Water and Power (LADWP) provides electricity throughout the City of Los Angeles and many areas of the Owens Valley, serving approximately four million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electricity 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.[18] In 2017, the LADWP power system experienced an instantaneous peak demand of 6,432 MW.[19] Approximately 37 percent of LADWP's 2020 electricity purchases were from renewable sources, which is similar to the 33 percent statewide percentage of electricity purchases from renewable sources.[20] LADWP's annual electricity sale to customers for the 2017–2018 fiscal year, the most recent year for which data are available, was approximately 22,383 million kWh.

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. The Project Site currently receives electric power service from LADWP via nearby overhead power lines. Existing electricity usage was estimated based on the same methodology contained in the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR (California Emissions Estimator Model [CalEEMod] Version 2020.4.0). Specifically, the California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate of the existing electricity usage by inputting into the program the size of the land uses, the electrical demand factors for the land uses, electrical intensity factors related to water usage, and the estimated existing VMT at the Project Site. It is estimated that existing uses on the Project Site currently consume approximately 550,336 kWh of electricity per year.[21]

(2) Natural Gas

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

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

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

[20] *LADWP, 2020 Power Content Label, October 2020, www.ladwp.com/powercontent. Accessed August 2, 2022.*

[21] *Eyestone Environmental, Energy Calculations for 2159 Bay Street Project. See Appendix E of this Draft EIR.*

Natural gas is provided to the Project Site by the Southern California Gas Company (SoCalGas). SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.8 million customers in more than 500 communities encompassing approximately 24,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[22]

SoCalGas receives gas supplies from several sedimentary basins in the western United States and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies.[23] The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.[24] Gas supply available to SoCalGas from California sources averaged 87 million cf per day in 2020 (the most recent year for which data are available).[25]

SoCalGas supplies natural gas to the Project Site from natural gas service lines located in the Project vicinity. It is estimated that existing uses on the Project Site currently consume approximately 508,715 cf of natural gas per year.[26]

(3) Transportation Energy

According to the U.S. Energy Information Administration, transportation accounts for approximately 34 percent of California's total energy consumption in 2020.[27] In 2021, California consumed 13 billion gallons of gasoline and 3.1 billion gallons of diesel fuel.[28,29] Petroleum-based fuels currently account for 90 percent of California's transportation energy

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[22] *SoCalGas, Company Profile, www.socalgas.com/about-us/company-profile, accessed October 4, 2021.*

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

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

[25] *California Gas and Electric Utilities, 2021 Supplemental California Gas Report, p. 28.*

[26] *Eyestone Environmental, Energy Calculations for 2159 Bay Street. See Appendix E of this Draft EIR.*

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

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

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

sources.[30] However, the state is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. According to the California Department of Tax and Fee Administration, total statewide gasoline consumption has increased by 6 percent from 2011 to 2019.[31] However, this increase is mainly due to population increases as the per capita gasoline consumption is showing a downward trend.[32] The CEC predicts that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity.[33] According to CARB's EMFAC Web Database, Los Angeles County on-road transportation sources consumed 6.21 billion gallons of gasoline and 1.08 billion gallons of diesel fuel in 2020.[34]

The existing on-site land uses currently generate a demand for transportation-related fuel use as a result of vehicle trips to and from the Project Site. The estimate of annual VMT associated with the existing Project Site uses is 832,104 VMT per year.[35] Based on Year 2019 average fuel economy for the Los Angeles County area, this translates to 32,608 gallons of gasoline and 5,473 gallons of diesel per year.[36] Persons travelling to and from the Project Site also have the option of using public transportation to reduce transportation-related fuel use. Specifically, transit service within the Project Site area is provided by Metro. The Project Site is served by two Metro Rapid lines and three Metro Local lines. The Project Site is also located 1.5 miles from the Metro Little Tokyo/Arts District station. For further discussion of public transit lines that serve the Project area, refer to Section IV.K, Transportation, of this Draft EIR.

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

31 *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed October 4, 2021.*

32 *Eno Center for Transportation, How Have Different State Populations Changed Their Gasoline Consumption?, www.enotrans.org/article/how-have-different-state-populations-changed-their-gasoline-consumption/, accessed October 4, 2021.*

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

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

35 *Eyestone Environmental, Energy Calculations for 2159 Bay Street Project, See Appendix E of this Draft EIR.*

36 *Eyestone Environmental, Energy Calculations for 2159 Bay Street Project, See Appendix E of this Draft EIR.*

3. Project Impacts

a. Thresholds of Significance

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

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

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

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

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

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

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

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

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

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

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

5. The effects of the project on energy resources;

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

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

8. Whether the project conflicts with adopted energy conservation plans.

With regard to Threshold (b), the Project will be evaluated for consistency with adopted energy conservation plans and policies relevant to the Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CALGreen Code, and City building codes. Also, as discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project would also be consistent with the SCAG 2020–2045 RTP/SCS, which includes goals to reduce VMT with a corresponding decrease in fuel consumption.

b. Methodology

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

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

- The effects of the project on local and regional energy supplies and on requirements for additional capacity;

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

- The degree to which the project complies with existing energy standards;

- The effects of the project on energy resources;
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

(1) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control (including supply and conveyance) and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using the California Emissions Estimator Model (CalEEMod).[37] 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).[38] The SCAQMD construction surveys identified the use of diesel generators to supply construction sites with electrical power. As SCAQMD recommends use of electricity from LADWP instead of diesel generators the equivalent use of electrical power was calculated for the Project.

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

Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction worker travel and from the project site, and delivery and haul truck trips (e.g., the hauling of demolition material to off-site reuse and disposal facilities). Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix B 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

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

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

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

(2) Operation

Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas was calculated using demand factors provided in CalEEMod as part of the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR.

Energy impacts associated with transportation during operation were also assessed. Daily trip generation used in this analysis was based on the *2159 Bay Street Project Transportation Assessment* dated July 2020 (Transportation Assessment), prepared by The Mobility Group (See Appendix M of this Draft EIR). As discussed therein, the trip generation for the Project was determined based on the Los Angeles Department of Transportation (LADOT) VMT Calculator. The VMT Calculator was developed by the City and LADOT to comply with SB 743 which requires lead agencies to adopt VMT criteria to determine transportation related impacts. The daily Project-VMT was then input into CalEEMod, which calculated the annual VMT. The resulting annual VMT was used as part of the GHG analysis included in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. Based on this annual VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon calculated using 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 Appendix E of this Draft EIR. These calculations were used to determine if the Project causes the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F guidelines.

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies in 2025 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's energy demands. These calculations were used to determine if the Project causes the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F of the CEQA Guidelines.

c. Project Design Features

The Project would include project design features designed to improve energy efficiency as set forth in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, detailed in Project Design Feature GHG-PDF-1. These measures include, but are not

limited to, installation of occupancy-controlled light switches and thermostats, installation of time-controlled lighting, use of LED land other efficient lighting, and provisions to encourage pedestrian and bicycle use.

d. Analysis of Project Impacts

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

(1) Impact Analysis

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

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

As discussed above, the Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption (during operation only), and transportation fuels such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (construction, operations, maintenance and removal activities).[39]

For purposes of this analysis, Project maintenance would include activities such as repair of structures, landscaping and architectural coatings, which could potentially use electricity and petroleum-based fuels. Energy usage related to Project maintenance activities are assumed to be included as part of Project operations. Removing the structures constructed under this Project would include demolition or abandonment of the Project Site. However, it is not known when the Project would be removed after its construction and operation. Therefore, analysis of energy usage related to future Project removal activities would be speculative. For this reason, energy usage related to Project removal was not analyzed.

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

(i) Construction

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

As shown in Table IV.C-1 on page IV.C-23, a total of 22,797 kWh of electricity, 76,052 gallons of gasoline, and 273,689 gallons of diesel is estimated to be consumed during Project construction. Project construction is expected to be completed in 2025.

Electricity

During construction of the Project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electric equipment, and other construction activities necessitating electrical power. In accordance with Project Design Feature AQ-PDF-1 in Section IV.A, Air Quality, of this Draft EIR, electricity for non-emergency operational purposes would be supplied to the Project Site by LADWP via LADWP electricity lines and power poles rather than from gasoline or diesel powered generators.

As shown in Table IV.C-1, a total of approximately 22,797 kWh of electricity is anticipated to be consumed during Project construction. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the site and staging areas would also comply with applicable Title 24 requirements which includes limits on the wattage allowed per specific area, which result in the

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

Fuel Type	Quantity
Electricity	
Water Consumption	4,351 kWh
Lighting, electric equipment, and other construction activities necessitating electrical power[b]	18,446 kWh
Total Electricity	**22,797 kWh**
Gasoline	
On-Road Construction Equipment	76,052 gallons
Off-Road Construction Equipment	0 gallons
Total Gasoline	**76,052 gallons**
Diesel	
On-Road Construction Equipment	173,995 gallons
Off-Road Construction Equipment	99,694 gallons
Total Diesel	**273,689 gallons**

kWh = kilowatt hours

[a] *Detailed calculations are provided in Appendix E 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, 2021.

conservation of energy.[40] As such, the demand for electricity during construction would not cause wasteful, inefficient, and unnecessary use of energy.

The estimated construction electricity usage represents approximately 0.6 percent of the estimated net annual operational demand which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.[41] Moreover, construction electricity usage would replace the existing electricity usage at the Project Site during construction.

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

[41] *The percentage is derived by taking the total amount of electricity usage during construction (22,797 kWh) and dividing that number by the total amount of electricity usage during operation (4,266,959 kWh) to arrive at 0.6 percent.*

Natural Gas

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

Transportation Energy

The petroleum-based fuel use summary provided above in Table IV.C-1 on page IV.C-23 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix E, of this Draft EIR. As shown, on- and off-road vehicles would consume an estimated 76,052 gallons of gasoline and approximately 273,689 gallons of diesel fuel throughout the Project's construction. For comparison purposes, the fuel usage during Project construction would represent approximately 0.001 percent of the 2023 annual on-road gasoline-related energy consumption and 0.03 percent of the 2023 annual diesel fuel-related energy consumption in Los Angeles County, as shown in Appendix E, of this Draft EIR. Moreover, the temporary construction-period fuel consumption would be offset by removal of existing uses, thereby reducing the net temporary increase in consumption.

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.[42] In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. Anti-idling regulations would limit the amount of fuel wasted in equipment and trucks that are not in operation. Emissions regulations to control DPM and NOx emissions would require that engines be more efficient, which results in reduced fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to Federal fuel efficiency requirements. Therefore, Project construction activities would comply with existing energy standards with regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not cause wasteful, inefficient, and unnecessary use of energy.

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

Construction Materials

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

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in Table IV.C-2 on page IV.C-26, the Project's energy demand would be approximately 4,266,959 kWh of electricity per year, 3,252,133 cf of natural gas per year, 214,498 gallons of gasoline per year, and 42,214 gallons of diesel fuel per year.

Electricity

As shown in Table IV.C-2, with compliance with Title 24 standards and applicable CALGreen Code requirements, buildout of the Project would result in a projected on-site demand for electricity totaling approximately 4,266,959 kWh per year. In addition to complying with CALGreen Code, the Project would also implement GHG-PDF-1 in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would include features to reduce energy usage; and Project Design Feature WAT-PDF-1, presented in Section IV.M.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 flush volume of 1.0 gallon of water per flush, showerheads with a flow rate of 1.5 gallons per minute or less, and drip/subsurface irrigation, among others. These measures would further reduce the Project's energy demand. Specifically, as shown in Table IV.C-2, with incorporation of project design features, electricity usage would be reduced by 6 percent. In addition, the Project would be subject to the 2019 Title 24 standards. Residential and nonresidential

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

Source	Estimated Energy Demand (without PDFs)[b]	Estimated Energy Demand (with PDFs)[b]	Percent Reduction
Electricity			
Building	3,755,834 kWh	3,540,576 kWh	-6%
Water[d]	667,943 kWh	534,354 kWh	-20%
EV Chargers[c]	192,029 kWh	192,029 kWh	0%
Total Electricity	**4,615,806 kWh**	**4,266,959 kWh**	**-8%**
Natural Gas			
Building	3,252,133 cf	3,252,133 cf	0%
Total Natural Gas	**3,252,133 cf**	**3,252,133 cf**	**0%**
Transportation			
Gasoline	263,544 gallons	169,771 gallons	-36%
Diesel	51,867 gallons	33,412 gallons	-36%
Total Transportation	**315,410 gallons**	**203,183 gallons**	**-36%**

kWh = kilowatt hours

cf = cubic feet

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

[b] *Electricity and natural gas estimates assume compliance with applicable 2019 CALGreen Code requirements and implementation of GHG-PDF-1, in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. Transportation fuel estimates include project characteristics consistent with Mitigation Measure TR-MM-1 which requires a Transportation Demand Management (TDM) program for the Project.*

[c] *Section IV.E, Greenhouse Gas Emissions, states that that the Project would provide at least 30 percent of Code-required parking capable of supporting future electric vehicle supply equipment (EVSE) and that 10 percent of Code-required parking spaces would be further provided with EV charging stations. Providing infrastructure for EV in itself does not result in additional electricity usage. However, electricity usage was estimated for the EV charging stations.*

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

Source: Eyestone Environmental, 2021.

buildings built in compliance with the 2019 standards use about 30 to 53 percent less energy than those under the 2016 standards.[43]

LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. The current sources procured by LADWP include wind, solar,

[43] *LADWP, 2020 Power Content Label, October 2020, www.ladwp.com/powercontent. Accessed August 2, 2022.*

and geothermal sources. These sources account for 34 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available.[44] 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.

In addition, the Project would provide rooftop solar panels and a battery in excess of current Title 24 requirements which would reduce the Project's demand for electricity from LADWP.[45]

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2025-2026 fiscal year (the Project's buildout year) will be 23,537 GWh of electricity.[46,47] As such, the Project-related annual electricity consumption of 4,266,959 kWh per year would represent less than 0.02 percent of LADWP's projected sales in 2025. 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-26, with compliance with Title 24 standards and applicable CALGreen Code requirements, buildout of the Project is projected to generate an on-site demand for natural gas totaling approximately 3,252,133 cf per year. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen Code), the Project would implement project design features to further reduce energy use. Specifically, the Project would implement GHG-PDF-1 in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would include features which entails implementing conservation features to reduce natural gas usage. In order to meet the energy performance requirement, the

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[44] *LADWP, 2020 Power Content Label, October 2020, www.ladwp.com/powercontent. Accessed August 2, 2022.*

[45] *Building permits applications submitted prior to January 1, 2023 are subject to the requirements of the current version of the California Energy Code (Title 24, Section 110.10) which, given the type, size, and number of stories of the proposed buildings, only requires the reservation of roof space for solar atop the proposed 10-story building. Building permits submitted on or after January 1, 2023 will be subject to the 2022 version of the code which will require the installation of solar panels and a battery.*

[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, Appendix A, Table A-1.*

Project may include use of efficient water heaters, cooking equipment and other major support appliances.

As stated above, the Project's estimated demand for natural gas is 3,252,133 cf per year, or approximately 8,286 cf per day. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.43 billion cf per day in 2025 (the Project's buildout year).[48] The Project would account for approximately 0.0003 percent of the 2025 forecasted consumption in SoCalGas' planning area. In addition, as also previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. The 2020-2045 RTP/SCS identifies High-Quality Transit Areas (HQTAs) which are described as corridor-focused Priority Growth Areas (PGAs) that are within 0.5 mile of an existing or planned transit stop or bus transit corridor with 15-minute or less service frequency during peak commute hours. 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.[49,50] As discussed in

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[48] *California Gas and Electric Utilities, 2020 California Gas Report, p. 147.*

[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.*

[50] *Connect SoCal 2020-2045 RTP/SCS, Page 174. September 2020. As indicated therein, smart growth is an urban planning and transportation theory that concentrates growth in compact walkable urban centers to avoid sprawl. Development guided by smart growth principles can minimize air and water pollution, reduce greenhouse gas emissions, encourage cleanup and reuse of contaminated properties, and preserve natural lands. As further indicated therein, smart growth principles include: mix land uses to take advantage of compact building design; create a range of housing opportunities and choices; create walkable neighborhoods, foster distinctive, attractive communities with a strong sense of place; preserve open space, farmland, natural beauty, and critical environmental areas; strengthen and direct development towards existing communities; provide a variety of transportation choices; make development decisions predictable, fair, and cost effective; and encourage community and stakeholder collaboration in development decisions.*

Section IV.K, Transportation, of this Draft EIR, the Project Site is located approximately 1.5 miles from the recently rebuilt Metro Little Tokyo/Arts District Station, as well as five NextGen Metro bus lines within one-half mile of the Project Site or less which provide service within the Project vicinity and would provide employees and visitors with various public transportation opportunities. In accordance with the LAMC, the Project would provide a total of 71 bicycle parking spaces. The Project would also incorporate characteristics that would reduce trips and VMT as compared to standard ITE trip generation rates. Such measures include increase in density of jobs per unit area and proximity to major job or residential centers (i.e., Downtown Los Angeles).

As such, the Project's siting would minimize transportation fuel consumption through the reduction of VMT, as described above and discussed further in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR. As discussed previously, the MXD model takes into account features such as increased density and proximity to transit which contributes to a reduction in VMT and associated fuel usage. As shown in Table IV.C-2 on page IV.C-26, with incorporation of these measures and Mitigation Measure TR-MM-1, net transportation-fuel usage would be reduced by 36 percent for both gasoline and diesel fuels.

As summarized in Table IV.C-2, when accounting for the measures that would be implemented to reduce VMT, the Project's estimated petroleum-based fuel usage would be approximately 196,613 gallons of gasoline and 37,539 gallons of diesel per year, or a total of 234,152 gallons of petroleum-based fuels annually.

(iii) Summary of Energy Requirements and Energy Use Efficiencies

As previously discussed, CEQA Guidelines Appendix F recommends quantification of a project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed. The Project's energy requirements were calculated based on the methodology contained in CalEEMod for electricity and natural gas usage. Project VMT data were calculated based the LADOT VMT Calculator. The calculations also took into account energy efficiency measures such as Title 24, CALGreen Code, and vehicle fuel economy standards. Table IV.C-1 on page IV.C-23 and Table IV.C-2 provide a summary of Project construction and operational energy usage, respectively. During Project construction activities, a total of 22,797 kWh of electricity would be consumed along with 362,580 gallons of transportation fuel (gasoline and diesel). Construction activities typically do not involve the consumption of natural gas, and current plans do not involve use of natural gas powered construction equipment.

During Project operations, a total of 4,266,959 kWh of electricity, 3,252,133 cf of natural gas, and 256,712 gallons of transportation fuel would be consumed on an annual basis. When accounting for project design features and increased energy efficiency measures, operational electricity usage would be reduced by six percent, and transportation fuel usage would be reduced by 36 percent when compared to the Project without energy efficiency measures. Details are provided in Appendix E of this Draft EIR.

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

(i) Construction

As discussed above, electricity would be intermittently consumed during the conveyance of the water used to control fugitive dust, as well as to provide electricity for temporary lighting and other general construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 0.6 percent of the estimated net annual operational demand which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.[51] Furthermore, the electricity demand during construction would be somewhat offset with the removal of the existing on-site uses which currently generate a demand for electricity. Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus there would be no demand generated by construction, resulting in a net decrease when compared to existing operations. Transportation fuel usage during Project construction activities would represent approximately 0.001 percent of gasoline usage and 0.03 percent of diesel usage within Los Angeles County, respectively. As energy consumption during Project construction activities would be immaterial, the Project would not have a significant effect on regional energy consumption in years during the construction period.

(ii) Operation

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2025-2026 fiscal year (the Project's buildout year)

[51] *The percentage is derived by taking the total amount of electricity usage during construction (22,797 kWh) and dividing that number by the total amount of electricity usage during operation (4,266,959 kWh) to arrive at 0.6 percent.*

will be 23,537 GWh of electricity.[52,53] As such, the Project-related annual electricity consumption of 4,266,959 kWh per year would represent less than 0.02 percent of LADWP's projected sales in 2025.[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 in demand for natural gas is 3,252,133 cf per year, or approximately 8,286 cf per day. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.43 billion cf per day in 2025 (the Project's buildout year).[56] The Project would account for approximately 0.0003 percent of the 2025 forecasted consumption in SoCalGas' planning area. Furthermore, SoCalGas has confirmed that the Project's natural gas demand can be served by the facilities in the Project area.[57]

At buildout, the Project would consume a total of approximately 214,498 gallons of gasoline and 42,214 gallons of diesel per year, or a total of 256,712 gallons of petroleum-based fuels annually. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.003 percent of the 2025 (buildout year) annual on-road gasoline- and diesel-related energy consumption in Los Angeles County, as shown in Appendix E, of this Draft EIR.

In sum, as energy consumption during Project operation would be relatively negligible compared to overall energy usage in the county, and energy requirements are within LADWP's and SoCalGas' service provision, Project operation would not have a significant effect regional energy consumption.

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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, Appendix A, Table A-1.*

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

[55] *LADWP, Will serve letter from Ralph Jaramillo, dated March 30, 2018. Provided in Appendix Q of this Draft EIR.*

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

[57] *SoCalGas, Will serve letter from Jason Jones, dated February 9, 2018. Provided in Appendix Q of this Draft EIR*

(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.[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 5,854 MW.[59] Under peak conditions, the Project would consume 4,266,959 kWh on an annual basis which is equivalent to a daily peak load of 838 kW.[60] In comparison to the LADWP power grid base peak load of 5,854 MW in 2017, the Project would represent approximately 0.02 percent of the LADWP base peak load conditions. In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical demand by the Project.[61] As shown in Table IV.C-1 and Table IV.C-2 on pages IV.C-23 and IV.C-26, respectively, electricity usage during Project construction activities would be lower than the operational activities. As Project operational electricity usage demands would be met by the LADWP supplies, construction electricity usage would not significantly impact the electrical grid. Therefore, Project electricity consumption during construction and operational activities would have a negligible effect on peak load conditions of the power grid.

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

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, would comply with Title 24 standards and applicable CALGreen and Los Angeles Green Building Code requirements. Therefore, Project construction and operational activities

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[58] *LADWP, 2017 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 2159 Bay Street. See Appendix E 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).*

would comply with existing energy standards with regards to electricity and natural gas usage.

With regard to transportation fuels, trucks and equipment used during proposed construction activities, the Project would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are 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 travelling to and from the Project Site are assumed to comply with CAFE fuel economy standards. Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions but would also result in fuel savings in addition to CAFE standards, as required.

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

(e) Effects of the Project on Energy Resources

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

Natural gas supplied to Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California 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 80 years of natural gas reserves based on 2015 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.

With regard to on-site energy resources, the Project Site does not contain any significant sources of renewable (i.e., water, solar, wind, geothermal) or non-renewable

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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 April 13, 2020.*

energy, such as coal, natural gas, petroleum. In addition, the Project would not generate power using non-renewable sources or associated energy transmission lines. Therefore, the Project construction and operation activities would not conflict with existing or planned energy resources.

Transportation fuels (gasoline and diesel) are produced from crude oil which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[65] The Project would also comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). The Project would also support alternative modes of transportation by providing for bicycle parking spaces and preferred parking for fuel efficient vehicles, resulting in a reduction of transportation fuel usage. Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in Subsection 2.a(2)(b), Regulatory Framework, one of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. However, as of September 2018, SB 100 was signed, which would require retail sellers of electric services to increase procurement from eligible renewable energy resources to 50 percent renewable resources target by December 31, 2026, and 60 percent by December 31, 2030. Accordingly, LADWP is required to procure at least 60 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources account for 34 percent of LADWP's overall energy mix in 2019, 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. 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 avoid consumption of fossil fuels.

With regard to on-site renewable energy sources, as indicated previously and as discussed in Section II, Project Description, of this Draft EIR, the Project would provide rooftop solar panels and a battery in excess of current Title 24 requirements. 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:

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[65] *BP Global, Oil Reserves, www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.htm, accessed October 5, 2021.*

[66] *LADWP, 2020 Power Content Label, October 2020, www.ladwp.com/powercontent. Accessed August 2, 2022.*

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

The Project's high-density design and location in proximity to residential centers and retail uses would allow for more employees to live closer to work and shopping areas, reducing the vehicle miles travelled. The design, which includes dedicated bicycle parking facilities and an improved streetscape with pedestrian amenities, also encourages non-automotive forms of transportation such as walking or biking to destinations. In addition, the Project represents an infill development within an existing urbanized area that would concentrate new office and retail/restaurant uses within an HQTA. The Project would be located approximately 1.5 miles from the Metro Gold Line Little Tokyo/Arts District station. In addition, the Project Site is served by five Metro lines. As further discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, these measures would reduce VMT by approximately 36 percent in comparison to a standard project as estimated by CalEEMod, with 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 Los Angeles Green Building Code requires compliance with the CALGreen Code and California's Building Energy Efficiency Standards (Title 24). In addition to compliance with the City's Green Building Code, the Project would implement energy efficiency measures contained in GHG-PDF-1. Therefore, the Project would incorporate measures that are above and beyond current State and City energy conservation requirements.

Project Design Feature WAT-PDF-1 in Section IV.M.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, states that the Project would implement water conservation features that go beyond current California Plumbing Code, including high-efficiency toilets with flush volume of 1.0 gallon of water per flush,

[67] *CEC, Wind Resource Area & Wind Resources.*

showerheads with a flow rate of 1.5 gallons per minute or less, and drip/subsurface irrigation, among others. A reduction in water usage would in turn reduce the amount of electricity used for water conveyance meet or exceed 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 Integrated Resources Plan, the RENEW LA Plan, the City of Los Angeles Space Allocation Ordinance (Ordinance No. 171,687), and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. As discussed in the Initial Study included as Appendix A of this Draft EIR, the Project would be consistent with the applicable regulations associated with solid waste. Specifically, the Project would provide adequate storage areas in accordance with Ordinance No. 171,687, which requires that development projects include an on-site recycling area or room of specified size.[68] The Project would also comply with State and City waste diversion goals, as applicable, by providing clearly marked, source-sorted receptacles to facilitate recycling. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

Based on the above, with implementation of these features along with compliance 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, of this Draft EIR, 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 Title 24, which have been incorporated into the City's Green Building Code.

With regard to transportation uses, the Project design would reduce the vehicle miles travelled throughout the region and encourage use of alternative modes of transportation. The Project would be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.H, Land Use, of this Draft EIR, SCAG's 2020–2045 RTP/SCS focuses on creating livable communities with an

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

emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2020–2045 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The Project would be consistent with the energy efficiency policies emphasized in the 2020–2045 RTP/SCS. Most notably, the Project would be a high density commercial development located within the Arts District, which is characterized by a high degree of pedestrian activity. The Project would provide greater proximity to neighborhood services and residences and would be well-served by existing public transportation, including Metro and LADOT bus lines and rail lines. This is evidenced by the Project Site's location within a designated HQTA.[69]

The introduction of new housing and job opportunities within a HQTA, as proposed by the Project, is consistent with numerous policies in the 2020–2045 RTP/SCS related to locating new housing and jobs near transit. As discussed above, the Project results in a reduction in VMT compared to a Project without Reduction Features when taking into account features such as encouraging use of bicycle trips and promoting mass-transit usage to reduce Project-related vehicle trips.[70] With this reduction in VMT, the Project would be consistent with goals of the 2020-2045 RTP/SCS and SB 375 requirements

In addition, the Project would comply with state energy efficiency requirements and would use electricity from LADWP, which had a renewable energy mix of 34 percent in 2019, the most recent year for which data are available. Measures contained in GHG-PDF-1 would also increase energy efficiency of the project. All of these features would serve to reduce the consumption of electricity, natural gas, and transportation fuel. Based on the above, the Project would be consistent with adopted energy conservation plans.

(i) Conclusion Regarding Significance Threshold No. 1

As demonstrated in the analysis above, the Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption

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[69] *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.*

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

of energy resources during construction or operation. The Project's energy requirements would not significantly affect local or regional supplies or capacity. The Project's energy usage during base and peak periods would also be consistent with electricity and natural gas future projections for the region. As discussed previously, gasoline fuel usage for the region is expected to continue to decline over the next 10 years. Transportation fuel supply is not expected to decrease significantly over this same period and supplies would be sufficient to meet Project demand. Electricity generation capacity and supplies of natural gas and transportation fuels would be sufficient to meet the needs of Project-related construction and operations. During construction, the Project would comply with on-road fuel economy standards and 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 the CALGreen Code and include energy conservation measures included as part of GHG-PDF-1. **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 impacts with regard to energy use would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

Project impacts with regard to energy use would be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact 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.c(2)(h) above, the energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the CALGreen Code, and the City of Los Angeles Green Building Code. As these conservation policies are mandatory under the City of Los Angeles Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency. In addition, the Project would implement measures to exceed Title 24 energy efficiency requirements.

With regard to transportation related energy usage, the Project would comply with goals of the SCAG's 2020–2045 RTP/SCS, which incorporates VMT targets established by SB 375. The Project's mixed-use commercial development and proximity to major job centers and public transportation would serve to reduce VMT and associated transportation fuel usage within the region. In addition, vehicle trips generated during Project operations would comply with CAFE fuel economy standards. During construction activities, the Project would be required to comply with CARB anti-idling regulations and the In-Use Off-Road Diesel Fleet regulations.

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

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project impacts with regard to conflicts with plans would be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact 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. 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 making the Project more energy-efficient, and would be consistent with growth expectations for LADWP's service area. The Project also would incorporate additional energy efficiency measures as required by GHG-PDF-1. Furthermore, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the CALGreen Code and state energy standards that are required by code under Title 24, and incorporate mitigation measures, as necessary.

Additionally, as discussed above, LADWP is required to procure at least 60 percent of its energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources accounted for 37 percent of LADWP's overall energy mix in 2020, the most recent year for which data are available.[71] This represents the available off-site renewable sources of energy that could meet the Project's and related projects' energy demand. Therefore, the Project and related projects would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.**

(ii) Natural Gas

Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient, and would be consistent with regional and local growth expectations for SoCalGas' service area. The Project also would incorporate additional energy efficiency measures as required by GHG-PDF-1 and reduce natural gas usage. Furthermore, future development projects within SoCalGas's service area would be expected to incorporate energy conservation features, comply with applicable regulations including the CALGreen Code and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Therefore, the Project and other future development projects within SoCalGas's service area would comply with energy conservation plans and efficiency

[71] *LADWP, 2020 Power Content Label, October 2020, www.ladwp.com/powercontent. Accessed August 2, 2022.*

standards required to ensure that energy is used efficiently. **As such, cumulative impacts related to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and, thus, would be less than significant.**

(iii) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. As described above, at buildout, the Project would consume a total of 214,498 gallons of gasoline and 42,214 gallons of diesel per year, or a total of 256,712 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.003 percent of the 2025 (buildout year) annual on-road gasoline- and diesel-related energy consumption in Los Angeles County, as shown in Appendix E of this Draft EIR.

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

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled which would reduce reliance on petroleum fuels. According to the California Department of Tax and Fee Administration, gasoline consumption has increased by 6 percent from 2011 to 2019;[72] however, the CEC predicts that the demand for gasoline will continue to decline over the next 10 years and that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions.

Furthermore, as described above, the Project would be consistent with the energy efficiency policies emphasized by the 2020–2045 RTP/SCS. Specifically, the Project would

[72] *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed October 6, 2021.*

be a high density commercial development located within the Arts District, an existing urbanized area that is characterized by a high degree of pedestrian activity. The Project would provide greater proximity to neighborhood services, and residential uses near the Project site and would be well-served by existing public transportation, including Metro and LADOT bus lines and rail line. The Project would introduce new job opportunities within a HQTA, which is consistent with numerous policies in the 2020–2045 RTP/SCS related to locating new jobs near transit.[73] These features would serve to reduce VMT and associated transportation fuel consumption.[74] Although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2020–2045 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[75] Implementation of the 2020–2045 RTP/SCS would result in an estimated 19-percent decrease in per capita GHG emissions by 2035. Implementation of the 2020–2045 RTP/SCS and the next plan are expected to fulfill and exceed the region's obligations under SB 375 with respect to meeting the State's GHG emission reduction goals. As discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project results in a VMT reduction of approximately 19

percent in comparison to a Project without Reduction Features, which would be consistent with the reduction in transportation emission per capita provided in the 2020–2045 RTP/SCS and with CARB's updated 2035 target.

Although the 2020–2045 RTP/SCS is intended to reduce GHG emissions, the reduction in VMT would also result in reduced transportation fuel consumption. By its very nature, the 2020–2045 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects. In addition, it is assumed that related projects in the Project Site vicinity would reduce VMT, consistent with the goals of the 2020–2045 RTP/SCS. **Since the Project is consistent with the 2020–2045 RTP/SCS, its contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of transportation fuel would not be cumulatively considerable and, thus, would be less than significant.**

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[73] *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.*

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

[75] *SCAG, 2020–2045 RTP/SCS, September 2020, p. 126.*

(iv) Conclusion

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

(b) Consistency with State or Local Plans

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

Furthermore, as described above, the Project would be consistent with the policies emphasized by the 2020–2045 RTP/SCS. The Project would develop high-density commercial uses near major residential centers and public transit which would result in a VMT reduction. As discussed in Section IV.E, Greenhouse Gas Emissions, of this Draft EIR, the Project results in a VMT reduction of approximately 36 percent in comparison to a Project without Reduction Features, which would be consistent with the reduction in transportation emission per capita provided in the 2020–2045 RTP/SCS and with CARB's updated 2035 target. **Therefore, the Project is consistent with the 2020–2045 RTP/SCS and would not be cumulatively considerable with regard to consistency with energy conservation plans.**

(2) Mitigation Measures

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

(3) Level of Significance after Mitigation

Cumulative impacts with regard to energy use and conflicts with plans would be less than significant without mitigation. Therefore, no mitigation measures are required or included, and the impact levels remains less than significant.