IV. Environmental Impact Analysis

C. Energy

1. Introduction

In accordance with the intent of Appendix F and Appendix G of the California Environmental Quality Act (CEQA) Guidelines, this Draft Environmental Impact Report (EIR) analyzes the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section includes a summary of the Project's anticipated energy needs (detailed calculations of which can be found in Appendix E of this Draft EIR), and conservation measures that are included as part of the Project. Information found herein, as well as other aspects of the Project's environmental-related energy impacts, are discussed in greater detail elsewhere in this Draft EIR, including in Chapter II*, Project Description*, and Sections IV.E, *Greenhouse Gas Emissions*, and IV.N.2, *Water Supply*, of this Draft EIR. Information related to energy infrastructure is provided in Section IV.N.4, *Electric Power, Natural Gas, and Telecommunications Infrastructure,* of this Draft EIR.

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

2. Environmental Setting

a) Regulatory Framework

(1) Federal

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

[1] 14 California Code of Regulations Section 15000 et seq.

States Environmental Protection Agency (USEPA) jointly administer the Corporate Average Fuel Economy standards. The U.S. Congress has specified that Corporate Average Fuel Economy 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] On April 1, 2010, federal CAFE standards were adopted for passenger cars and light-duty trucks for model years 2012 through 2016 and in August 2012, CAFE standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. The standards surpass the prior CAFE standards.

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on 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]

In August 2018, the USEPA and NHTSA proposed the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule that would, if adopted, maintain the CAFE standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE standards for model year 2020 are 43.7 miles per gallon (mpg) for passenger cars and 31.3 mpg for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012.

(2) State

(a) Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code 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 (Public Resources Code Section 25301[a]). The 2019 Integrated Energy Policy Report, the latest published report from CEC, provides the results of the CEC's assessments related to energy sector trends, building decarbonization and energy efficiency, zero-emission vehicles, energy

[2] National Highway Traffic Safety Administration, Corporate Average Fuel Economy, https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy. Accessed May 26, 2020.

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

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

equity, climate change adaptation, electricity reliability in Southern California, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts.

(b) California's Renewables Portfolio Standard

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

On September 10, 2018, Governor Jerry Brown signed SB 100, which supersedes prior legislation 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] Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

(c) California Building Standards Code (Title 24)

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

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. 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 include efficiency improvements to the residential and non-residential standards.[8]

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

6 California Public Utilities Commission (CPUC), RPS Program Overview, 2018, http://www.cpuc.ca.gov/RPS_Overview/. Accessed May 26, 2020.

7 California Energy Commission (CEC), 2019 Building Energy Efficiency Standards, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed May 26, 2020.

8 CEC, 2019 Building Energy Efficiency Standards, https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed May 26, 2020.

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

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the California Green Building Standards (CALGreen) Code, includes mandatory measures for residential and non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. When compared to the previously applicable 2016 CALGreen Code, changes were related to solar photo-voltaic system requirements, new requirements for newly constructed healthcare facilities, encouraging demand responsive technologies (residential developments), updating indoor and outdoor lighting (non-residential developments), and the use of highly efficient air filters (both residential and non-residential developments).[9] For new multi-family dwelling units, the residential mandatory measures were revised to provide additional EV charging requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification. For non-residential mandatory measures, the number of required EV charging spaces has been revised in its entirety. Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding these standards.

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

In response to the transportation sector's large share of California's CO_2 emissions, Assembly Bill (AB) 1493 (commonly referred to as the 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] As discussed above, in September 2019, the USEPA published the SAFE Vehicles Rule in the federal register (Federal Register, Vol. 84, No. 188, Friday, September 27, 2019, Rules and Regulations, 51310-51363) that maintains the vehicle miles per gallon standards applicable in model year 2020 for model years 2021 through 2026. California and 23 other states and environmental groups in November 2019 in U.S. District Court in Washington, filed a petition for the USEPA to reconsider the published rule. The Court has not yet ruled on these lawsuits.

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

9 CALGreen Energy Systems, A Comprehensive List of All Changes to the 2019 California CalGreen Code.

10 California Air Resources Board (CARB), Clean Car Standards—Pavley, Assembly Bill 1493, http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed May 26, 2020.

11 USEPA, 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 Health and Safety Code (HSC), Division 25.5/California Global Warming Solutions Act of 2006

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

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

(f) Senate Bill 350

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 efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.[12]

(g) California Air Resources Board

(i) CARB's Advanced Clean Car Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations.[13] The program requires a greater number of zero-emission vehicle 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 Zero-Emissions Vehicle (ZEV) regulations to require manufacturers to produce an increasing number of pure ZEV's (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

[12] As mentioned under Subsection 2.a)(2)(b), *California's Renewables Portfolio Standard*, on September 10, 2018, Governor Jerry Brown signed SB 100, which further increased California's Renewables Portfolio Standard to achieve 50% renewable resources by December 31, 2026, and achieve a 60 percent target by December 31, 2030. See Subsection 2.a)(2)(b), *California's Renewables Portfolio Standard,* for additional details.

[13] CARB, Clean Car Standards – Pavley, Assembly Bill 1493, https://www.arb.ca.gov/cc/ccms/ccms.htm, last reviewed January 11, 2017. Accessed May 26, 2020.

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

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485 and Title 17 CCR Section 93115). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

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

The goals of regulations to reduce emissions from in-use heavy duty diesel-fueled vehicles are primarily to reduce public health impacts from diesel emissions; however, compliance with such regulations has shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines.[14]

In 2008, CARB approved the Truck and Bus regulation to reduce nitrogen oxide (NO_X), respirable particulate matter (PM10), and fine particulate matter (PM2.5) emissions from existing diesel vehicles operating in California (13 CCR, Section 2025). The phased regulation aims to reduce emissions by requiring installation of diesel soot filters and encouraging the retirement, replacement, or retrofit of older engines with newer emission-controlled models, which would make the vehicles more fuel efficient than vehicles older engines. The phasing of this regulation has full implementation by 2023.

CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by CARB on July 26, 2007 aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (13 CCR Section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

[14] For Construction Pros, Cummins Tier-4-Final Field Test Showed 10% Lower Fuel Consumption, March 5, 2014, https://www.forconstructionpros.com/equipment/fleet-maintenance/diesel-engines/press-release/11323000/cummins-inc-cummins-tier4final-field-test-showed-10-lower-fuel-consumption. Accessed May 26, 2020.

(h) Sustainable Communities Strategy

On September 3, 2020, the SCAG's Regional Council formally adopted the *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy* (SCAG 2020–2045 RTP/SCS) also known as the Connect SoCal, which is an update to the previous 2012-2035 RTP/SCS and 2016-2040 RTP/SCS.[15] The 2020-2045 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by achieving an 8 percent reduction in per capita transportation GHG emissions by 2020 and 19 percent reduction in per capita transportation GHG emissions by 2035 compared to the 2005 level on a per capita basis.[16] Compliance with and implementation of 2020-2045 RTP/SCS policies and strategies would have co-benefits of reducing per capita criteria air pollutant emissions (e.g. nitrogen dioxide, carbon monoxide, etc.) associated with reduced per capita vehicle miles traveled (VMT), and corresponding decreases in per capita transportation-related fuel consumption. Information regarding the applicable RTP/SCS for the region in which this Project is located is provided below in Subsection IV.C.2(3)(b). In addition, refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding these requirements.

(i) California Environmental Quality Act

In accordance with CEQA and Appendix F, Energy Conservation, of the CEQA Guidelines, and to assure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the CEQA Guidelines provides a list of energy-related topics that should be analyzed in the EIR. In addition, while not described or required as significance thresholds for determining the significance of impacts related to energy, Appendix F provides the following topics for consideration in the discussion of energy use in an EIR, to the extent the 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; and

[15] Southern California Association of Governments (SCAG), 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), May 2020.
[16] SCAG, 2020-2045 RTP/SCS, May 2020.

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

(3) Regional

(a) Southern California Gas Company

The Southern California Gas Company (SoCalGas), who is the natural gas retailer for the Project, along with five other California utility providers released the *2020 California Gas Report*, presenting a forecast of natural gas supplies and requirements for California through the year 2035. This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. Overall, SoCalGas predicts a decrease in natural gas demand in future years due to a decrease in per capita usage, energy efficiency policies, and the State's transition to renewable energy displacing fossil fuels including natural gas.[17]

(b) Southern California Association of Governments

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

SCAG has since adopted the 2020-2045 RTP/SCS. The goals and policies of the 2020-2045 RTP/SCS build from the previous 2012-2035 RTP/SCS and 2016-2020 RTP/SCS and provide strategies for reducing per capita VMT. These strategies include supporting projects that encourage diverse job opportunities for a variety of skills and levels of education, recreation, and a full-range of shopping, entertainment and services all within a relatively short distance; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "Complete Streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative-fueled vehicles.[18] In addition, the 2020-2045 RTP/SCS includes strategies to support local planning and projects that serve short trips, promote transportation investments, investments in active transportation, more walkable and bikeable communities, that will result in improved air quality and public health, and reduced greenhouse gas emissions, and supports building physical

[17] California Gas and Electric Utilities, 2020 California Gas Report, 2020.
[18] SCAG, 2025-2040 RTP/SCS, May 2020, pages 74-99.

infrastructure such as local and regional bikeways, sidewalk and safe routes to schools pedestrian improvements, regional greenways and first-last mile connections to transit, including to light rail and bus stations. Like the prior 2016-2040 RTP/SCS, the 2020-2045 RTP/SCS supports development in High Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.[19] The Project Site is located within an HQTA as designated by the 2020-2045 RTP/SCS. Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding the 2020-2045 RTP/SCS.

(4) Local

(a) Green New Deal

In April 2019, Mayor Eric Garcetti released L.A.'s Green New Deal (Sustainable City pLAn 2019). Rather than an adopted plan, the Green New Deal is a mayoral initiative that consists of a program of actions designed to create sustainability-based performance targets through 2050 that advance economic, environmental, and equity objectives.[20] L.A.'s Green New Deal (Sustainable City pLAn 2019) is the first four-year update to the City's first Sustainable City pLAn that was released in 2015. It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it addresses climate change with accelerated targets and new aggressive goals.

While not a plan intended solely to reduce energy use, within the Green New Deal, energy efficiency and innovation are important parts that help define its strategies and reach its goals. These include reducing GHG emissions through near-term outcomes:

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square feet for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 mBTU/sqft 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.

[19] SCAG, 2025-2040 RTP/SCS, May 2020, pages 74-99
[20] City of Los Angeles, L.A.'s Green New Deal (Sustainable City pLAn 2019), 2019.

- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. 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 proportion of Angelenos living within 1/2 mile of a park or open space at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) City of Los Angeles Green Building Code

On December 17, 2019, the Los Angeles City Council approved Ordinance No. 186,488, which amended Chapter 9 of the Los Angeles Municipal Code (LAMC), referred to as the "Los Angeles Green Building Code," by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the CALGreen Code (CCR, Title 24, Part 11). Projects filed on or after January 1, 2020, must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details.

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

The generation of solid waste results in fuel demand from collection service vehicles to transport waste to a material recovery facility or landfill. The City has enacted plans, policies and regulations to address solid waste services and reduction of the solid waste stream. The recycling of solid waste materials contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, in 2015, 3.61 million tons of aluminum were produced from using recycled materials in the United States, saving enough energy to provide electricity to 7.5 million homes. In 1989, California enacted AB 939, the California Integrated Waste Management Act, which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.

The City has developed and is in the process of implementing, the Solid Waste Integrated Resources Plan, also referred to as the City's Zero Waste Plan, whose goal is to lead the

City towards being a "zero waste" City by 2030. These waste reduction plans, policies, and regulations, along with Mayoral and City Council directives, have increased the level of waste diversion (e.g., recycling) for the City to 76 percent as of 2013.[21] The RENEW LA Plan, aims to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources not going to disposal and achieving a diversion rate of 90 percent or more by 2025.[22]

The Waste Hauler Permit Program (Ordinance No. 181519, LAMC Chapter VI, Article 6, Section 66.32-66.32.5), effective January 1, 2011, requires private waste haulers to obtain AB 939 Compliance Permits to transport construction and demolition waste to City-certified construction and demolition waste processing facilities.

The City's Exclusive Franchise System Ordinance (Ordinance No. 182,986), among other requirements, sets a maximum annual disposal level and diversion requirements for franchised waste haulers to promote waste diversion from landfills and support the City's zero waste goals. These programs reduce the number of trips to haul solid waste and therefore reduce the amount of petroleum-based fuels and energy used to process solid waste. Refer to Section IV.N.3, *Solid Waste*, of this Draft EIR for additional details regarding City of Los Angeles Solid Waste Programs and Ordinances.

b) Existing Conditions

(1) Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, for distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid.

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 LADWP provides electrical service throughout the City, including the Project Site, serving approximately 4 million people within a service area of approximately 465 square miles. Electrical service provided by LADWP is divided into two planning districts: Valley

[21] City of Los Angeles, Department of Public Works, LA Sanitation, Recycling, 2017, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-r?_adf.ctrl-state=kq9mn3h5a_188. Accessed May 27, 2020.

[22] City of Los Angeles, RENEW LA, Five-Year Milestone Report, 2011.

and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP has a net dependable generation capacity greater than 7,531 MW.[23] On August 31, 2017, LADWP's power system experienced a record instantaneous peak demand of 6,502 MW.[24] Approximately 34 percent of LADWP's 2019 electricity purchases were from renewable sources, which is similar to the 31.7 percent statewide percentage of electricity purchases from renewable sources.[25] The annual electricity sale to customers for the 2018-2019 fiscal year was approximately 22,663 million kWh.[26]

(2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of the State's total energy requirements. Natural gas is measured in terms of cubic feet (cf).

Natural gas is provided to the Project Site by SoCalGas, which is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.6 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the U.S./Mexican border.[27]

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.[28] 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

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

[24] LADWP, Facts & Figures, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=xk0dbq6vu_4&_afrLoop=9598324856637&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D9598324856637%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dfcfwtty0v_25. Accessed May 27, 2020.

[25] LADWP, 2019 Power Content Label, Version: October 2020.

[26] LADWP, 2017 Retail Electric Sales and Demand Forecast, page 14, September 2017.

[27] Southern California Gas Company (SoCalGas), Company Profile. Accessed May 27, 2020.

[28] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 143.

cost of transport.[29] Gas supply available to SoCalGas from California sources averaged 97 million cf per day in 2019 (the most recent year for which data are available), and the annual natural gas sales to customers in 2019 was approximately 879,285 million cf.[30]

(3) Transportation Energy

According to the CEC, transportation accounted for about 41 percent of California's total energy consumption in 2017 based on a carbon dioxide equivalent basis.[31] In 2018, California consumed 15.5 billion gallons of gasoline and 3.7 billion gallons of diesel fuel.[32] Petroleum-based fuels currently account for more than 90 percent of California's transportation fuel use.[33] However, the state is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline and transportation fossil fuels in general will continue to decline over the next 10 years primarily due to improvements in fuel efficiency and increased electrification.[34] According to fuel sales data from the CEC, fuel consumption in Los Angeles County was approximately 3.56 billion gallons of gasoline and 0.59 billion gallons of diesel fuel in 2019.[35]

(4) Existing Project Site

The Project Site is currently developed with existing one- to four-story freezer, cold storage, and dry storage warehouses with associated office space, loading docks, and surface parking. The existing warehouses, which date from approximately 1908 through 2003, range from approximately 22 to 61 feet in height and total approximately 205,393 square feet. All of the existing features are to be demolished to allow for the development of the Project. Energy demand from the existing uses is incorporated into this analysis to determine the Project's net (Project minus existing) energy consumption from operations. The Existing Site's current annual electricity demand is approximately 4,304,153 kWh, and annual natural gas demand is approximately 271,303 kBtu, based on facility provided information including utility billing data. The Existing Site's annual demand for diesel fuel is approximately 83,601 gallons and for gasoline is approximately 24,439 gallons, based

29 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.

30 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 143. Daily natural gas usage in 2019 was 2,409 million cf, annual value derived by multiplying daily values by 365 days.

31 California Energy Commission, 2019 Integrated Energy Policy Report, p.4.

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

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

34 California Energy Commission, 2019 Integrated Energy Policy Report, p.228.

35 CEC, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2020, https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed May 27, 2020. Diesel is adjusted to account for retail (47.2 percent) and non-retail (52.8 percent) diesel sales.

on facility provided information on truck and vehicle trips. Detailed calculations are provided in Appendix E, and existing site utility data and existing site vehicle and truck trip data is provided in Appendix C of this Draft EIR.

3. Project Impacts

a) Thresholds of Significance

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

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

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

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

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

In accordance with Appendix G and Appendix F of the CEQA Guidelines, the degree to which the Project complies with existing energy standards is considered, as appropriate, to evaluate impacts under Threshold (b).

b) Methodology

This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. Specific analysis methodologies are discussed below. Energy calculations are provided in Appendix E of this Draft EIR, and are based on the same assumptions as

are used in Section IV.A, *Air Quality*, and Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR.

(1) Construction

Construction energy impacts were assessed based on the incremental change in energy compared to baseline conditions. Under CEQA, the baseline environmental setting for an EIR is generally established at or around the time that the Notice of Preparation (NOP) for the EIR is published. As discussed previously, the Project Site is currently developed with existing one- to four-story freezer, cold storage, and dry storage warehouses with associated office space, loading docks, and surface parking. The existing warehouses range from approximately 22 to 61 feet in height and total approximately 205,393 square feet. These existing uses would be demolished and removed to allow for development of the Project.

Project construction was expected to start in 2020, but would commence at a later date. If, for various site planning, financial, or other reasons, the onset of construction is delayed to a later date than assumed in the modeling analysis, construction impacts would be similar to or less than those analyzed, because a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is because State regulations require construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time. As a result, should the Project commence construction on a later date than modeled in this impact analysis, energy conservation and infrastructure impacts would be less than the impacts disclosed herein. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the Project Site. Construction activities can vary substantially from day to day, depending on the specific type of construction activity and the number of workers and vendors traveling to the Project Site. This analysis considers these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources. This analysis is based on estimated maximum construction activities. Therefore, the construction analysis is applicable to both the Project and the Project with the Deck Concept.

(a) Electricity

Construction electricity was estimated for a temporary construction office, for construction equipment that would use electricity as an alternative to diesel fuel, and for water usage from dust control. The construction office was assumed to be a 1,000 square foot trailer and was modelled using the California Emissions Estimator Model (CalEEMod),[36] which is a state-approved emissions model used for the Project's air quality and GHG emissions assessment. In addition to outputting emissions, CalEEMod provides for estimation of annual electricity, natural gas, and water use. Electricity demand by construction

[36] California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017, http://caleemod.com/. Accessed May 28, 2020.

equipment was estimated using default horsepower and load factors from CalEEMod and hours of operation per day provided by the Applicant. The total horsepower-hours were then converted to kilowatt-hours using a standard conversion factor.

(b) Natural Gas

Natural gas is not expected to be consumed in large quantity during Project construction. Therefore, natural gas associated with construction activities was not calculated.[37]

(c) Transportation Fuels

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 C of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour from CARB's off-road vehicle (OFFROAD) model. Fuel consumption from construction on-road worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the emissions modeling worksheets and CalEEMod construction output files. Total VMT for these on-road vehicles were then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC2017 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. CalEEMod assumed trip lengths were used for worker commutes while vendor, management visits, concrete, and haul truck trips were taken from emissions modeling worksheets that used EMFAC2017 emission factors. Consistent with CalEEMod, construction worker trips were assumed to include a mix of light duty gasoline automobiles and light duty gasoline trucks. Construction vendor truck were assumed to be a mix of medium-heavy duty and heavy duty diesel trucks and concrete and haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix E of this Draft EIR for detailed energy calculations.

The energy usage required for Project construction has been estimated based on the number and type of construction equipment that would be used during Project construction by assuming a conservative estimate of construction activities (i.e., maximum daily equipment usage levels). Energy for construction worker commuting trips has been estimated based on the predicted number of workers for the various phases of construction and the estimated VMT based on the conservative values in the CalEEMod and EMFAC2017 models. The assessment also includes a discussion of the Project's compliance with relevant energy-related regulatory requirements that would minimize the amount of energy usage during construction. These measures are also discussed in Chapter II*, Project Description*, Section IV.A, *Air Quality*, and Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR.

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

The construction equipment and haul trucks would likely be diesel-fueled, while the construction worker commute vehicles would primarily be gasoline-fueled. For the purposes of this assessment, it is conservatively assumed that all heavy-duty construction equipment and haul trucks would be diesel-fueled. This represents a worst-case scenario intended to represent the maximum potential energy use during construction. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB OFFROAD emissions model, which is a state-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB EMFAC emissions model, which is a state-approved model for estimating emissions on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into CalEEMod, which is a state-approved emissions model used for the Project's air quality and GHG emissions assessment. However, emissions for management, vendor, and concrete/haul trucks were calculated outside of CalEEMod using emission factors from EMFAC2017 to provide a more detailed and accurate account of truck emissions.

(2) Operation

Operation of the Project would require energy in the form of electricity and natural gas for building heating, cooling, cooking, lighting, water demand and wastewater treatment, consumer electronics, and other energy needs, and transportation fuels, primarily gasoline, for vehicles traveling to and from the Project Site. Operational energy impacts were assessed based on the increase in energy demand compared to existing conditions. Under CEQA, the existing environmental setting for an EIR is generally established at or around the time that the NOP for the EIR is published. As discussed previously, the Project Site is currently developed with existing one- to four-story freezer, cold storage, and dry storage warehouses with associated office space, loading docks, and surface parking. The existing warehouses range from approximately 22 to 61 feet in height and total approximately 205,393 square feet. As stated above, the net change in operational energy demand is based on the difference between the existing Project Site energy demand and the energy demand of the Project at full buildout. This analysis is based on estimated maximum operational activities for the Project and the Project with the Deck Concept. Therefore, the operational analysis is provided for both the Project and the Project with the Deck Concept.

For consistency with the emissions modeling provided in Section IV.A, *Air Quality* and IV.E, *Greenhouse Gas Emissions*, the Project's energy use was calculated assuming buildout in 2025. However, the Project would be completed as early as 2026. Therefore, the Project's energy calculations are slightly conservative since operational transportation energy would be less than those analyzed here due to improving vehicle technology that would be more fuel-efficient and lead to a cleaner vehicle fleet mix traveling to and from the Project Site as reflected in EMFAC mobile source emission factors. As a result, Project buildout at a later date than analyzed would result in energy impacts that would be lower than the impacts disclosed herein.

(a) Electricity

The Project's estimated electricity demand was analyzed relative to LADWP's existing and planned energy supplies in 2025 (i.e., the Project buildout year)[38] to determine if the utility would be able to meet the Project's energy demands. Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) from Project operation was calculated using demand factors provided in CalEEMod based on the 2019 Title 24 standards, which went into effect on January 1, 2020. Energy usage from water demand (e.g., electricity used to supply, convey, treat, and distribute) was estimated based on new buildings and facilities compared to the existing uses and includes incorporation of Project Design Feature WS-PDF-1 (also discussed in Section IV.N.2, *Water Supply*, of this Draft EIR).

(b) Natural Gas

The Project's estimated natural gas demand was analyzed relative to SoCalGas' existing and planned energy supplies in 2025 (i.e., the Project buildout year)[39] to determine if the utility would be able to meet the Project's energy demands. Furthermore, natural gas demand generated by the existing site was calculated using demand factors provided in CalEEMod and subtracted from the Project's natural gas demand to obtain the net annual natural gas demand. Natural gas demand for the Project would be generated mainly by building heating and appliances.

(c) Transportation Fuels

Energy impacts associated with transportation during operation were also assessed. Energy demand due to the transportation of residents, employees, and visitors to and from the Project Site was estimated based on the predicted number of trips to and from the Project Site and the estimated VMT obtained from the Transportation Assessment (TA) included in Appendix M-1 of this Draft EIR.[40] The transportation impacts were analyzed for both the Project and the Project with the Deck Concept pending approval. The Project with the Deck Concept would generate additional trips from the additional temporary programming proposed for the Deck, and therefore, would use more transportation fuel. The assessment also includes a discussion of the Project's compliance with relevant energy-related regulations, its incorporation of Project Design Features GHG-PDF-1 and WS-PDF-1, and its land use transportation characteristics that would minimize the amount of transportation energy usage during operations. These features and characteristics are also discussed in Chapter II, *Project Description*, Section IV.A, *Air Quality*, Section IV.E, *Greenhouse Gas Emissions*, and Section IV.N.2, *Water Supply*, of this Draft EIR.

[38] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1. While the Project's Development Agreement is through 2040, comparison to the analyzed buildout year of 2025 provides a conservative analysis as supply projections for electricity increase in future years.

[39] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 143-145.

[40] Fehr & Peers, Transportation Assessment for the 670 Mesquit Project, April 2021. Provided in Appendix M-1 of this Draft EIR.

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

c) Project Design Features

The Project would include Project Design Features designed to improve energy efficiency as discussed further below and as set forth in Sections IV.A, *Air Quality*; Section IV.E, *Greenhouse Gas Emissions*; and Section IV.N.2, *Water Supply*.

The Project is an urban infill project, as it would replace existing industrial uses located within the boundaries of the Central City North Community Plan Area with a high-density, mixed-use development. The Project proposes higher density housing and commercial uses, consistent with compact growth, on a parcel of infill urban land accessible to public transit. The Project's new housing and job growth would be located in a HQTA, which SCAG defines as an area within a half mile of a well-serviced transit stop.[41] As discussed in Section IV.E, *Greenhouse Gas* Emissions, VMT reductions were calculated using equations developed by the USEPA that take into account factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the USEPA Mixed- Use Development (MXD) model to calculate trip reductions for multi-use developments.[42] The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites. As shown in Appendix C, Air Quality and Greenhouse Gas Emissions Technical Appendix, and the Project's TA, included as Appendix M-1 of this Draft EIR, incorporation of USEPA MXD VMT reduction features applicable to the Project results in a 22.5 percent reduction in overall VMT for the Project and resultant fuel usage and 22.4 percent reduction in overall VMT for the Project with the Deck Concept and resultant fuel usage as compared to a standard project within the Air Basin as measured by CalEEMod.[43]

41 SCAG, 2020-2045 RTP/SCS, May 2020, pages 23 and 51.

42 USEPA, Mixed-Use Trip Generation Model, www.epa.gov/smartgrowth/mixed-use-trip-generation-model. Accessed March 11, 2021.

43 Fehr & Peers, Transportation Assessment for the 670 Mesquit Project, April 2021. Provided in Appendix M-1 of this Draft EIR. The calculated VMT reductions are based on comparisons of "unmitigated VMT" and "mitigated VMT" from the City of Los Angeles VMT Calculator outputs on pages 183 for the Project and page 194 for the Project with the Deck Concept where the "mitigated VMT" is VMT that accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites based on the USEPA MXD Model.

d) Analysis of Project Impacts

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

(1) Impact Analysis

The Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption, and transportation fuels (diesel and gasoline).

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

(a) The Project's Energy Requirements and its Energy Use Efficiencies by Amount and Fuel Type for Each Stage of the Project Including Construction, Operation, Maintenance, and/or Removal. If Appropriate, the Energy Intensiveness of Materials may be Discussed

(i) Construction

During Project construction, energy would be consumed in the form of electricity on a limited basis for powering lights, electronic equipment, or other construction activities necessitating electrical power.[44] Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction workers travel to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

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

[44] Electric power used during construction is calculated as part of the on-site construction office.

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

Energy Type	Total Quantity [c]	Annual Average Quantity During Construction [c]
Electricity		
Construction Office[b]	69,280 kWh	12,990 kWh
Electricity from Water (Dust Control)	355,390 kWh	66,636 kWh
Total Electricity	424,670 kWh	**79,626 kWh**
Gasoline		
On-Road Construction Equipment	1,328,189 gallons	248,993 gallons
Off-Road Construction Equipment	0 gallons	0 gallons
Total Gasoline	**1,328,189 gallons**	**248,993 gallons**
Diesel		
On-Road Construction Equipment	421,808 gallons	79,076 gallons
Off-Road Construction Equipment	1,040,371 gallons	195,036 gallons
Total Diesel	**1,462,180 gallons**	**274,112 gallons**

kWh = kilowatt-hours; N/A = not applicable

[a] Detailed calculations are provided in Appendix E of this Draft EIR.
[b] Construction office includes electricity used for powering lights, electronic equipment, or other construction activities necessitating electrical power.
[c] Totals may not add up due to rounding of decimals.

SOURCE: ESA, 2021; CalEEMod, 2018.

(a) Electricity

During construction of the Project, electricity would be consumed, on a limited basis, to power lighting, electric equipment, and supply and convey water for dust control. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site.

As shown in Table IV.C-1, annual average construction electricity usage would be approximately 79,626 kWh and would be within the supply and infrastructure capabilities of LADWP (forecasted to be 26,748 GWh net energy for load in the 2025-2026 fiscal year).[45,46] The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represent a small fraction of the Project's net annual operational electricity. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Furthermore, the electricity used for off-road light construction equipment would have the

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

co-benefit of reducing construction-related air pollutant and GHG emissions from more traditional construction-related energy in the form of diesel fuel. **Therefore, impacts from construction electrical demand would be less than significant and would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(b) Natural Gas

As stated above, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no expected demand generated by construction of the Project. If natural gas is used during construction, it would be in limited amounts and on a temporary basis and would specifically be used to replace or offset diesel-fueled equipment and as such would not result in substantial on-going demand. **Therefore, impacts from construction natural gas demand would be less than significant and would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(c) Transportation Energy

Table IV.C-1 reports the estimated amount of petroleum-based transportation energy that is expected to be consumed during Project construction. Energy calculations are provided in Appendix E of this Draft EIR. During Project construction, on- and off-road vehicles would consume an estimated annual average of approximately 274,112 gallons of diesel and approximately 248,993 gallons of gasoline. Project construction activities would last for approximately 64 months (conservatively assumed as 55 months accounting for only work days). For comparison purposes only, and not for the purpose of determining significance, the fuel usage during Project construction would represent approximately 0.007 percent of the 2019 annual on-road gasoline-related energy consumption and 0.047 percent of the 2019 annual diesel fuel-related energy consumption in Los Angeles County,[47] as shown in Appendix E of this Draft EIR.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[48]

Construction of the Project would utilize fuel-efficient equipment consistent with State and federal regulations, such as fuel efficiency regulations in accordance with the CARB Pavley Phase II standards, the anti-idling regulation in accordance with Section 2485 in Title 13 of the California Code of Regulations, and fuel requirements in accordance with Section 93115 in Title 17 of the California Code of Regulations. The Project would comply with Corporate Average Fuel Economy standards, which would result in more efficient use of transportation

[47] CEC, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2019, https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed May 27, 2020.

[48] BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html. Accessed May 27, 2020.

fuels (lower consumption). As such, the Project would comply with regulatory measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from the use of more fuel-efficient engines.

In addition, the Project would divert mixed construction and demolition debris to City-certified construction and demolition waste processors using City-certified waste haulers, consistent with the Los Angeles City Council approved Ordinance No. 181519 (LAMC Chapter VI, Article 6, Section 66.32-66.32.5). Diversion of mixed construction and demolition debris would reduce truck trips to landfills, which are typically located some distance away from City centers, and would increase the amount of waste recovered (e.g., recycled, reused, etc.) at material recovery facilities, thereby further reducing transportation fuel consumption.

Based on the analysis above, construction would utilize energy only for necessary on-site activities and to transport construction materials and demolition debris to and from the Project Site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment and fuels would result in less fuel combustion and energy consumption, and thus minimize the Project's construction-related energy use. **Therefore, construction of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, HVAC; refrigeration; lighting; and the use of electronics, equipment, and appliances. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in **Table IV.C-2**, *Summary of Annual Net New Energy Use During Project Operation – Project*, the Project's annual net new energy demand would be approximately 26,472,098 kWh of electricity, 49,463,425 kBtu of natural gas, approximately 2,369,945 gallons of gasoline, and approximately 191,899 gallons of diesel fuel.

(a) Electricity

With compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, at buildout, the Project would result in a projected net increase in the on-site annual demand for electricity totaling approximately 26,472,098 kWh for the Project, as shown in Table IV.C-2. In addition to compliance with CALGreen, the Project also incorporates Project Design Feature GHG-PDF-1 (Green Building Features) as described in Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR. In addition, the Project incorporates Project Design Feature WS-PDF-1 (Water Conservation Features) as provided in Section IV.N.2, *Water Supply*, of this Draft EIR, to minimize water demand and associated energy needed for water conveyance. As shown therein, Project Design Feature WS-PDF-1 includes the installation of low-flow and high efficiency toilets; landscaping consisting of native and drought-tolerant plants; and water efficient drip/subsurface irrigation and micro-spray. As such, the Project would minimize energy demand.

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

Energy Type	Annual Quantity [b,c]
Electricity	
Existing Site	(4,304,153 kWh)
Proposed Project	
Building Energy	27,641,964 kWh
Cooling Tower	575,909 kWh
Water Heating and Conveyance	2,365,658 kWh
Electric Vehicle Charging	192,720 kWh
Project Subtotal	30,776,251 kWh
Total Net Electricity	**26,472,098 kWh**
Natural Gas	
Existing Site	(271,303 kBtu)
Proposed Project	
Building Energy	46,920,558 kBtu
Mobile Sources	2,814,170 kBtu
Project Subtotal	49,734,728 kBtu
Total Net Natural Gas	**49,463,425 kBtu**
Transportation	
Existing Site	
Gasoline	(24,439 gallons)
Diesel	(83,601 gallons)
Proposed Project	
Gasoline	2,394,384 gallons
Diesel	275,500 gallons
Total Net Transportation – Gasoline	**2,369,945 gallons**
Total Net Transportation – Diesel	**191,899 gallons**

kWh = kilowatt-hours
kBtu = thousand British thermal unit
a Detailed calculations are provided in Appendix E of this Draft EIR.
b Totals may not add up due to rounding of decimals.
c Negative values are denoted using parentheses.
d Project electricity and natural gas estimates assume compliance with applicable 2019 Title 24 and CALGreen requirements and implementation of Project Design Feature GHG-PDF-1 in Section IV.E, *Greenhouse Gas Emissions*, and Project Design Feature WS-PDF-1 in Section IV.N.2, *Water Supply*, of this Draft EIR.

SOURCE: ESA, 2020.

In addition, LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020. With the passage of SB 100 in September 2018, LADWP will

be required to update its long-term plans to demonstrate compliance including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030, and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. LADWP's current sources include wind, solar, hydroelectric, biomass and biowaste, and geothermal sources. These sources accounted for 34 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available from the CEC at the time of this analysis and represent the available off-site renewable sources of energy that would meet the Project's energy demand.[49]

LADWP generates its load forecast to account for regional economic and population growth based on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, plug-in electric vehicle (PEV) projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.[50] In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would therefore account for the Project's electricity demand.[51]

Based on LADWP's collected data in its 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its total sales in the 2025-2026 fiscal year (the Project's buildout year) will be 23,537 GWh of electricity.[52,53] As such, the Project-related net increase in annual electricity consumption of approximately 26,472,098 kWh for the Project and would represent approximately 0.11 percent of LADWP's projected sales in 2025 and would be within LADWP's projected electricity supplies.

As previously described, the Project incorporates a variety of energy and water conservation measures and features to reduce energy usage and minimize energy demand. **Therefore, with the incorporation of these measures and features, operation of the Project would not result in the wasteful, inefficient, or unnecessary consumption of electricity.**

(b) Natural Gas

The Project would increase the demand for natural gas resources. With compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, at buildout, the Project is projected to generate a net increase in the on-site annual demand for natural gas totaling approximately 49,463,425 kBtu, as shown in Table IV.C-2 and Table IV.C-3. As discussed above, in addition to complying with applicable regulatory requirements

49 LADWP, 2019 Power Content Label, Version: October 2020.
50 LADWP, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 70.
51 LADWP, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 67.
52 LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.
53 LADWP, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page A-6.

regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen), the Project incorporates project design features to further reduce energy use. The Project incorporates Project Design Feature GHG-PDF-1 (Green Building Features) as described in Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR, which includes building features to achieve the Leadership in Energy and Environmental Design (LEED) Silver Certification level or equivalent green building standards.

SoCalGas accounts for anticipated regional demand based on various factors including growth in employment by economic sector, growth in housing and population, and increasingly demanding State goals for reducing GHG emissions. SoCalGas accounts for an increase in employment and housing between 2019 to 2035. The Project would add jobs and housing within the SoCalGas region and would be consistent with the growth projections set forth in the 2020 California Gas Report.[54] Furthermore, the 2020 California Gas Report, estimates natural gas supplies within SoCalGas' planning area will be approximately 884,749 million kBtu in 2025 (the Project's buildout year).[55] As stated above, the Project's annual net increase in demand for natural gas is estimated to be approximately 49.5 million kBtu. The Project would account for approximately 0.006 percent of the 2025 forecasted annual consumption in SoCalGas' planning area and would fall within SoCalGas' projected consumption for the area and would be consistent with SoCalGas' anticipated regional demand from population or economic growth.

As would be the case with electricity, the Project would comply with the applicable provisions of Title 24 and the CALGreen Code in effect at the time of building permit issuance to minimize natural gas demand. As specified in Project Design Feature GHG-PDF-1, the Project would be designed to achieve LEED Silver Certification level or equivalent green building standards and comply with Title 24 standards. As such, the Project would minimize energy demand. **Therefore, with the incorporation of these measures and features, operation of the Project would not result in the wasteful, inefficient, or unnecessary consumption of natural gas.**

(c) Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. A majority of the vehicle fleet that would be used by Project occupants and residents would consist of light-duty automobiles and light-duty trucks, which are subject to fuel efficiency standards. Annual trips for the Project were estimated using trip rates provided in the Project's TA included in Appendix M-1 of this Draft EIR.[56]

As shown in Table IV.C-2 and Table IV.C-3, the Project's estimated annual net increase in petroleum-based fuel usage would be approximately 2,369,945 gallons of gasoline and approximately 191,899 gallons of diesel for the Project. Based on the California Energy

[54] California Gas and Electric Utilities, 2020 California Gas Report, 2020, pages 94-95.
[55] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 145.
[56] Fehr & Peers, Transportation Assessment for the 670 Mesquit Project, April 2021.

Commission's *California Annual Retail Fuel Outlet Report*, Los Angeles County consumed 3,559,000,000 gallons of gasoline and 584,745,763 gallons of diesel fuel in 2019.[57] The Project would account for 0.067 percent of County gasoline consumption and 0.033 percent of County diesel consumption based on the available County fuel sales data for the year 2019.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[58] The Project would comply with Corporate Average Fuel Economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley Standards which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with Corporate Average Fuel Economy standards.

The Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles for the reasons provided below. As discussed in detail in Section IV.E, *Greenhouse Gas Emissions*, the Project's design and its characteristics would be consistent with and would not conflict with the goals of the SCAG 2020-2045 RTP/SCS. The Project's mixed use design and its increase in density located on an infill site within an HQTA and in proximity to transit, including multiple bus routes, its proximity to other retail, restaurant, entertainment, commercial, and job destinations, and its walkable environment would achieve a reduction in VMT of approximately 22.5 percent greater than that of a standard project within the Air Basin as measured by CalEEMod (refer to the detailed VMT analysis provided in Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR). Additionally, the Project design would provide for the installation of electric vehicle charging (EV) stations for a minimum of 10 percent of the parking spaces and would design 30 percent of all spaces to be EV-ready pursuant to the CALGreen Code and LAMC.

Based on the above, the Project would minimize operational transportation fuel demand consistent with State, regional, and City goals. **Therefore, operation of the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(iii) Project with the Deck Concept

Construction of the Project with the Deck Concept would require similar construction activities as the Project. The Project and the Project with the Deck Concept would use a similar mix of construction equipment, but the Project would require a similar or slightly reduced construction intensity level on a maximum construction activity day as compared to the Project with the Deck Concept given that the Deck would not be constructed under

[57] California Energy Commission (CEC), California Annual Retail Fuel Outlet Report, 2019, https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed May 27, 2020.

[58] BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html. Accessed May 27, 2020.

the Project. As such the analysis provided above for the Project is based on the worst-case construction activity, which includes concurrent construction of the buildings and the Deck. Thus, the conclusions for construction are the same and apply to both the Project and the Project with the Deck Concept. The electricity, natural gas, and transportation fuel usage calculated in the analysis above also reflects electricity, natural gas, and transportation fuel usage generated under construction of the Project with the Deck Concept. **Therefore, construction of the Project with the Deck Concept would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(a) Electricity

Similar to the Project, operation of the Project with the Deck Concept would consume electricity for multiple purposes, including, but not limited to HVAC; refrigeration; lighting; and the use of electronics, equipment, and appliances. Electricity would also be consumed during operations related to water usage, solid waste disposal, and vehicle trips. As shown in **Table IV.C-3**, *Summary of Annual Net New Energy Use During Project Operation – Project with the Deck Concept*, the Project with the Deck Concept's annual net new electricity demand would be approximately 26,518,298 kWh of electricity. This accounts for 0.099 percent of LADWP's projected electricity sales in 2025. While electricity would slightly increase due to the increase in outdoor lighting usage associated with the Deck, all other operational components related to the land uses proposed would be similar to that of the Project. Further, the Project with the Deck Concept would reduce electricity use by being consistent with 2019 Title 24 and CALGreen standards, and implementing GHG-PDF-1 and WS-PDF-1. **Therefore, operation of the Project with the Deck Concept would not result in the wasteful, inefficient, and unnecessary consumption of electricity.**

(b) Natural Gas

Operation of the Project with the Deck Concept would consume natural gas for multiple purposes, including, but not limited to space heating and cooking. As shown in **Table IV.C-3**, *Summary of Annual Net New Energy Use During Project Operation – Project with the Deck Concept*, the Project with the Deck Concept's annual net new natural gas demand would be approximately 49,510,054 kBtu of natural gas. This accounts for 0.005 percent of the 2025 forecasted annual natural gas consumption in SoCalGas' planning area. Natural gas would slightly increase due to the increase in VMT related to natural gas-powered vehicles, all other operational components related to the land uses proposed would be similar to that of the Project. Further, the Project with the Deck Concept would reduce natural gas use by being consistent with 2019 Title 24 and CALGreen standards, and implementing GHG-PDF-1. **Therefore, operation of the Project with the Deck Concept would not result in the wasteful, inefficient, and unnecessary consumption of natural gas.**

TABLE IV.C-3
SUMMARY OF ANNUAL NET NEW ENERGY USE DURING PROJECT OPERATION – PROJECT WITH THE DECK CONCEPT [A]

Energy Type	Annual Quantity [b,c]
Electricity	
Existing Site	(4,304,153 kWh)
Proposed Project	
Building Energy with Deck Concept	27,688,164 kWh
Cooling Tower	575,909 kWh
Water Heating and Conveyance	2,365,658 kWh
Electric Vehicle Charging	192,720 kWh
Project Subtotal	30,822,451 kWh
Total Net Electricity	**26,518,298 kWh**
Natural Gas	
Existing Site	(271,303 kBtu)
Proposed Project	
Building Energy	46,920,558 kBtu
Mobile Sources	2,860,798 kBtu
Project Subtotal	49,781,356 kBtu
Total Net Natural Gas	**49,510,054 kBtu**
Transportation	
Existing Site	
Gasoline	(24,439 gallons)
Diesel	(83,601 gallons)
Proposed Project	
Gasoline	2,434,057 gallons
Diesel	279,903 gallons
Total Net Transportation – Gasoline [e]	**2,409,618 gallons**
Total Net Transportation – Diesel [e]	**196,302 gallons**

kWh = kilowatt-hours

kBtu = thousand British thermal unit

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

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

[c] Negative values are denoted using parentheses.

[d] Project electricity and natural gas estimates assume compliance with applicable 2019 Title 24 and CALGreen requirements and implementation of Project Design Feature GHG-PDF-1 in Section IV.E, Greenhouse Gas Emissions, and Project Design Feature WS-PDF-1 in Section IV.N.2, *Water Supply*, of this Draft EIR.

SOURCE: ESA, 2020.

(c) Transportation Energy

Operation of the Project with the Deck Concept would consume transportation fuels primarily for travel to and from the Project Site. Fuel use is expected to increase under the Project with the Deck Concept due to an increase in VMT due to special events programming associated with the deck. As shown in **Table IV.C-3**, *Summary of Annual Net New Energy Use During Project Operation – Project with the Deck Concept*, the Project with the Deck Concept's annual net new fuel demand would be approximately 2,409,618 gallons of gasoline, and approximately 196,302 gallons of diesel fuel. This accounts for 0.068 percent of County gasoline consumption and 0.034 percent of County diesel consumption based on the available County fuel sales data for the year. While transportation fuel consumption would slightly increase due to the increase in VMT associated with the Deck, all other operational components related to the land uses proposed would be similar to that of the Project. Further, the Project with the Deck Concept would reduce transportation fuel consumption by complying with Corporate Average Fuel Economy and Pavley Standards and by being consistent with SCAG's 2020-2045 RTP/SCS VMT reduction goals. **Therefore, operation of the Project with the Deck Concept would not result in the wasteful, inefficient, and unnecessary consumption of transportation fuels.**

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

(i) Construction

As discussed above, electricity would be consumed during Project 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. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. As shown in Table IV.O-1, average annual net construction electricity usage would be approximately 79,626 kWh, which is much less than existing site usage. Construction activity would be temporary in nature, and would be off-set by the removal of existing on-site uses. Therefore, construction impacts to existing local and regional electricity supplies would be less than significant, and no additional capacity would be required.

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, and additional natural gas capacity would not be required. As stated above, transportation fuel usage during Project construction activities would represent approximately 0.007 percent of gasoline usage and 0.047 percent of diesel usage within Los Angeles County, respectively. Construction transportation energy would be provided by existing retail service stations and from existing mobile fuel services that are typically needed to deliver fuel to a construction site to refuel the off-road construction equipment at the Project Site and no new facilities would be required. **As energy consumption during**

construction would not be substantial (compared to projected Countywide consumption) and as energy supplies of the existing purveyors are sufficient to serve the project in addition to existing commitment, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.

(ii) Operation

(a) Electricity

Based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its net energy for load in the 2025-2026 fiscal year (the Project's buildout year) will be 23,537 GWh of electricity.[59,60] The Project-related net increase in annual electricity consumption of approximately 26,472,098 kWh/year would represent approximately 0.11 percent of LADWP's projected sales for the 2025-2026 fiscal year and would be consistent with LADWP's anticipated regional demand from population or economic growth. Based on these factors, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to serve the Project's electricity demand.

(b) Natural Gas

As stated above, the Project's estimated annual net increase in demand for natural gas would be approximately 49,463,425 kBtu. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates that natural gas consumption within SoCalGas' planning area will be approximately 884,749 million kBtu in 2025 (the Project's buildout year).[61] This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. The Project would account for approximately 0.006 percent of the 2025 forecasted consumption in SoCalGas' planning area and would fall within SoCalGas' projected consumption and supplies for the area. As such, SoCalGas' existing and planned natural gas capacity and supplies will be sufficient to serve the Project's demand. Further, the Project received a will-serve letter confirming SoCalGas would have the capacity and infrastructure capable of serving the Project's natural gas needs.[62]

(c) Transportation Energy

As stated above, at buildout, the Project would consume a net increase of approximately 2,369,945 gallons of gasoline and approximately 191,899 gallons of diesel per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.067 percent of the 2019 annual on-road gasoline- and approximately 0.033 percent of the 2019 annual on-road diesel-related energy consumption in Los Angeles County (based on the available County fuel sales data).

59 LADWP defines its future electricity supplies in terms of sales that will be realized at the meter.
60 LADWP, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.
61 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 145.
62 SoCalGas, Will Serve – 670 Mesquit St, Los Angeles. Included in Appendix E of this Draft EIR.

Detailed calculations are shown in in Appendix E of this Draft EIR. Operational transportation energy would be provided by existing retail service stations and no new retail service stations would be required. Transportation fuels (gasoline and diesel) are produced from crude oil, which can be produced from domestic supplies or imported from various regions around the world and, based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[63] As such, existing and planned transportation fuel supplies will be sufficient to serve the Project's demand. In addition, the Project would provide EV charging which would serve to incentivize the use of hybrid or full electric vehicles, thereby reducing the reliance on transportation fuels. In addition, as the Project is an urban infill project within an HQTA, which SCAG defines as an area within a half mile of a well-serviced transit stop,[64] would result in reduced vehicle trips and associated reduction in transportation fuel usage. **As energy consumption during operation would be relatively negligible and is consistent with existing and planned supplies, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.**

(iii) Project with the Deck Concept

Construction assumptions described above account for construction of the deck under the Project with the Deck Concept and, therefore, the construction conclusions are the same for both the Project and the Project with the Deck Concept. As such, transportation fuel usage during construction activities under the Project with the Deck Concept would also represent approximately 0.007 percent of gasoline usage and 0.047 percent of diesel usage within Los Angeles County, respectively. **As such, construction of the Project with the Deck Concept would not affect the local and/or regional energy supplies and would not require additional capacity.**

(a) Electricity

Similar to the Project, operation of the Project with the Deck Concept would consume electricity for multiple purposes, as described above. However, electricity would slightly increase due to the increase in outdoor lighting usage associated with the additional temporary programming on the Deck. Under the Project with the Deck Concept, the net increase in electricity demand would be approximately 26,518,298 kWh of electricity. This accounts for 0.11 percent of LADWP's projected electricity sales in 2025. As with the Project, existing and planned electricity and natural gas capacity and transportation fuel supplies will be sufficient to serve the Project with the Deck Concept demand. **As such, operation of the Project with the Deck Concept would not affect the local and/or regional energy supplies and would not require additional electricity capacity.**

(b) Natural Gas

Operation of the Project with the Deck Concept would consume natural gas for multiple purposes, as described above. However, natural gas would slightly increase due to the

63 BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html. Accessed May 27, 2020.

64 SCAG, 2020-2045 RTP/SCS, May 2020, pages 23 and 51.

increase in outdoor lighting usage and space heating associated with the additional temporary programming on the Deck. Under the Project with the Deck Concept, the net increase in natural gas demand would be approximately 49,510,054 kBtu of natural gas. This accounts for 0.006 percent of the 2025 forecasted annual natural gas consumption in SoCalGas' planning area. As with the Project, existing and planned natural gas capacity will be sufficient to serve the Project with the Deck Concept demand. **As such, operation of the Project with the Deck Concept would not affect the local and/or regional energy supplies and would not require additional natural gas capacity.**

(c) Transportation Energy

Operation of the Project with the Deck Concept would consume transportation fuels due to an increase in VMT associated with the additional temporary programming on the Deck. Under the Project with the Deck Concept, the net increase in transportation fuel demand would be approximately 2,409,618 gallons of gasoline, and approximately 196,302 gallons of diesel fuel. This accounts for 0.068 percent of County gasoline consumption and 0.034 percent of County diesel consumption based on the available County fuel sales data for the year. As with the Project, existing and planned transportation fuel supplies would be sufficient to serve the Project with the Deck Concept demand. **As such, operation of the Project with the Deck Concept would not affect the local and/or regional energy supplies and would not require additional transportation fuel capacity.**

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

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of the LADWP's power grid and base load conditions and would be consistent with expected levels of electricity demand. With regard to peak load conditions, the LADWP power system experienced an all-time high peak of 6,502 MW on August 31, 2017.[65] LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next ten years (approximately 30 MW per year).[66] Based on LADWP estimates for 2025-2026 (closest forecasted year to first project operational year), the base case peak demand for the power grid is 6,076 MW.[67] Under peak conditions, the Project would consume a net increase of approximately 26,472,098 kWh on an annual basis which, assuming 12 hours of active electricity demand per day, would be equivalent to approximately 6,044 kW (peak demand assuming 4,380 hours per year of active electricity demand).[68] In comparison to the LADWP power grid base peak load of 6,076 MW for 2025-2026, based on the assumption above, the Project would represent approximately 0.099 percent of the LADWP base peak load conditions and therefore

65 LADWP, 2017 Retail Electric Sales and Demand Forecast, September 2017, page 6.
66 LADWP, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 74.
67 LADWP, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.
68 Calculated as follows: 26,472,098 kWh / 4,380 hours = 6,044 kW.

would not create any new peak demand impacts that are inconsistent with LADWP demand projections.[69] In addition, as noted above, LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next ten years. Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid. **Therefore, the Project's electrical consumption during operational activities would have a negligible effect on peak load conditions of the power grid and is consistent with existing and planned demand.**

(i) Project with the Deck Concept

Similar to the Project, operation of the Project with the Deck Concept would consume electricity; however, under the Project with the Deck Concept, electricity would be slightly increased due to the increase in outdoor lighting usage. Under the Project with the Deck Concept, the net increase in electricity demand would be approximately 26,518,298 kWh on an annual basis which. Assuming 12 hours of active electricity demand per day, this electricity usage would be equivalent to approximately 6,054 kW (peak demand assuming 4,380 hours per year of active electricity demand).[70] In comparison to the LADWP power grid base peak load of 6,076 MW for 2025-2026, based on the assumption above, the Project with the Deck Concept would represent approximately 0.100 percent of the LADWP base peak load conditions and therefore would not create any new peak demand impacts that are inconsistent with LADWP demand projections.[71] In addition, as noted above, LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next ten years. **Therefore, the Project with the Deck Concept's electrical consumption during operational activities would have a negligible effect on peak load conditions of the power grid and is consistent with existing and planned demand.**

(d) Effects of the Project on Energy Resources

As discussed above, LADWP's electricity generation is derived from a mix of non-renewable and renewable sources, such as coal, natural gas, solar, geothermal wind and hydropower. The LADWP 2017 Power Strategic Long-Term Resource Plan identifies adequate energy resources to support future generation capacity, and, as discussed above, LADWP's existing and planned electricity capacity and supplies would be sufficient to serve the Project's electricity demand.[72] As discussed above in the Regulatory Framework, one of the objectives of SB 350 was to increase the procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 33 percent to 50 percent of its energy portfolio from renewable sources by 2030. The current sources of LADWP's renewable energy include wind, solar, and geothermal sources. These sources account for 34 percent of LADWP's overall energy mix in 2019, which is the most recent year for which

69 Calculated as follows: 6,044 kW / 6,076,000 kW = 0.101 percent.

70 Calculated as follows: 26,518,298 kWh / 4,380 hours = 6,054 kW.

71 Calculated as follows: 6,054 kW / 6,076,000 kW = 0.100 percent.

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

data are available from the CEC at the time of this analysis.[73] LADWP has committed to providing an increasing percentage of its energy portfolio from renewable sources so as to exceed the RPS requirements. Prior to the passage of SB 100 in September 2018, LADWP committed to exceeding the then-current RPS requirements by increasing to 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036.[74] With the passage of SB 100, LADWP will be required to update its long-term plans to demonstrate compliance with the updated requirements including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030 and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

With regard to on-site renewable energy sources, the Project would meet the applicable requirements of the Los Angeles Green Building Code and the CALGreen Code, including for building rooftops (if not designed as green roofs) to be solar-ready so that on-site solar photovoltaic or solar water heating systems could be installed in the future. Due to the Project Site's location, other types of on-site renewable energy sources would not be feasible on-site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, fuel cells, landfill gas, methane, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Additionally, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.[75] Therefore, the Project would support renewable energy.

As discussed above, natural gas supplied to the Southern California area is mainly sourced from out-of-state with a small portion originating in California. According to the U.S. Energy Information Administration (EIA), the United States currently has approximately 90 years of natural gas reserves based on 2016 consumption.[76] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years.[77] Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

As stated earlier in the discussion under Threshold (a)(1)(i)(c) and Threshold (a)(1)(ii)(c), transportation fuels (gasoline and diesel) are produced from crude oil, which can be provided domestically or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years

73 LADWP, 2019 Power Content Label, Version: October 2020.
74 LADWP, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page ES-3.
75 CEC, Wind Energy in California, 2017.
76 U.S. Energy Information Administration (EIA), How much natural gas does the United States have, and how long will it last?, last updated April 9, 2018, https://www.eia.gov/tools/faqs/faq.php?id=58&t=8. Accessed May 27, 2020.
77 CEC, Tracking Progress – Energy Efficiency, last updated September 2018.

of worldwide consumption.[78] Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

Based on the above, the Project would minimize construction and operational energy and transportation fuel demand to the extent feasible and would not substantially impact energy resources. **Therefore, construction and operation of the Project would not have a significant impact on energy resources.**

(i) Project with the Deck Concept

Construction assumptions described above account for construction of the deck under the Project with the Deck Concept and, therefore, the construction conclusions are the same for both the Project and the Project with the Deck Concept. In addition, while electricity, natural gas, and transportation fuel consumption would slightly increase due to the increase in outdoor lighting usage and increase in VMT associated with the additional temporary programming on the Deck, all other operational components related to the land uses proposed, compliance with regulations, and implementation of Project Design Features would be similar to that of the Project. Thus, the conclusions regarding impact significance presented above are the same and apply to the Project and the Project with the Deck Concept. **As such, construction and operation of the Project with the Deck Concept would not have a significant impact on energy resources.**

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

As discussed in Section IV.E, *Greenhouse Gas Emissions*, and Section IV.H*, Land Use and Planning*, of this Draft EIR, the SCAG 2020-2045 RTP/SCS presents the transportation vision for the region through the year 2045 and provides a long-term investment framework for addressing the region's transportation and related challenges. As shown in Exhibit 3.8 of the SCAG 2020-2045 RTP/SCS, the Project Site is located within an HQTA, which SCAG defines as "corridor-focused Priority Growth Areas within one half mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes (or less) during peak commuting hours."[79] The 2020-2045 RTP/SCS encourages increasing the density of development with mixed use projects within HQTAs, to reduce VMT and trips.[80]

The Project Site's location within an HQTA would be consistent with and would not conflict with SCAG's land use types for the area and would encourage the use of alternative and efficient modes of transportation, which would result in a reduction in overall VMT (refer to the detailed VMT analysis provided in Section IV.E, *Greenhouse Gas Emissions*, and Section IV.L, *Transportation*, of this Draft EIR). The Project Site is located within an

[78] BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html. Accessed May 27, 2020.
[79] SCAG, 2020-2045 RTP/SCS, May 2020, pages 51 and 91.
[80] SCAG, 2020-2045 RTP/SCS, May 2020, pages 50-51.

identified HQTA and is within a quarter-mile of public transportation, including five bus routes across four bus operators (Metro bus routes 18, 60, 62, and 720), and a Greyhound station located at the southwest corner of 7th Street and Decatur Street, all located within 0.3 miles of the Project Site. The closest LADOT stop for the LADOT DASH Loop A is located at the intersection of Molino Street and Palmetto Street, approximately 0.28 miles northwest of the Project Site. The closest Metro light rail stations are the L (Gold) Line Pico/Aliso Station, located approximately 0.7 miles from the Project Site and the Little Tokyo/Arts District Station, located approximately 2.0 miles from the Project Site. The Project would also provide parking for bicycles on-site to encourage utilization of alternative modes of transportation. The Project would introduce additional residential density and neighborhood serving uses within close proximity to transit, and services and destinations in the area. The Project would implement Mitigation Measure TRAF-MM-1, which requires implementation of a TDM Program that includes a variety of strategies that would further reduce Project-related trips and VMT, including subsidized/discounted daily or monthly public transit passes for office and commercial uses, as well as a commute trip reduction program for office and commercial workers. The Project Site location and TDM strategies would be consistent with regional plans to improve transportation efficiency. In addition, through the incorporation of Project Design Feature GHG-PDF-1 (see Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR for additional details), the Project will promote alternatives to conventionally fueled automobiles by designating a minimum of eight percent of on-site non-residential parking for carpool and/or alternative-fueled vehicles and shall pre-wire, or install conduit and panel capacity for a minimum of 30 percent of the total provided parking spaces, with 10 percent of the total provided parking spaces to be installed with electric vehicle charging stations.

As a result, operation of the Project would encourage reduced transportation energy and provide residents, employees, and visitors with multiple convenient alternative transportation options. **Therefore, the Project encourages the use of efficient transportation energy use and efficient transportation alternatives.**

(i) Project with the Deck Concept

Construction assumptions described above account for construction of the deck under the Project with the Deck Concept and, therefore, the construction conclusions are the same for both the Project and the Project with the Deck Concept. While electricity, natural gas, and transportation fuel consumption would slightly increase due to the increase in outdoor lighting usage and increase in VMT associated with the additional temporary programming on the Deck, all other operational components related to the project location, land uses proposed, compliance with regulations, and implementation of Project Design Features would be similar to that of the Project. Thus, the conclusions regarding impact significance presented above are the same and apply to the Project and the Project with the Deck Concept. In addition, as the Deck would increase the outdoor public open space by 132,000 square feet, this would further encourage utilization of alternative mode of transportation. **As such, the Project with the Deck Concept encourages the use of efficient transportation energy use and efficient transportation alternatives.**

(f) Compliance with Existing Energy Standards

The Project would utilize construction contractors who demonstrate compliance with applicable regulations. Construction equipment would comply with federal, State, and regional requirements where applicable. With respect to truck fleet operators, the USEPA and NHSTA have adopted fuel efficiency standards for medium- and heavy-duty trucks. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018 and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.[81] USEPA and NHTSA 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.[82] The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards; however, these regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

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

Electricity and natural gas usage during Project operations, as reported in Table IV.C-2 and Table IV.C-3, would be minimized through incorporation of applicable 2019 Title 24 standards, applicable 2019 CALGreen requirements, and the Los Angeles Green Building Code.

With respect to operational transportation-related fuel usage, the Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. The Project would comply with CAFE fuel economy standards and the Pavley Standards, which are designed to result in more efficient use of transportation fuels.

Thus, based on the above, construction and operation of the Project would comply with existing energy standards.

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

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

(g) Project Energy Conservation Measures That Exceed Requirements

The Project incorporates energy-conservation measures beyond regulatory requirements as specified in Project Design Feature GHG-PDF-1. As stated in GHG-PDF-1, the Project would be designed to meet the LEED Silver Certification level or green building standards including energy performance optimization features and installing energy efficient appliances that meet the USEPA ENERGY STAR rating standards or equivalent. The Project would also incorporate water conservation features, such as installing water fixtures that exceed applicable standards, and implementing water-efficient landscaping techniques.

As discussed in detail in Section IV.E, *Greenhouse Gas Emissions*, the Project's mixed use design and its increase in density located on an infill site within a HQTA in proximity to transit, the Project's proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations, and its walkable environment would achieve a reduction in VMT greater than the City and statewide averages.

Thus, based on the information above, the Project would include conservation measures that exceed requirements.

(i) Project with the Deck Concept

Construction assumptions for both the Project and Project with the Deck Concept are essentially the same. In addition, while electricity, natural gas, and transportation fuel consumption would slightly increase due to the increase in outdoor lighting usage and increase in VMT associated with the additional temporary programming on the Deck, all other operational components related to the land uses proposed, compliance with regulations, and implementation of Project Design Features would be similar to that of the Project. Thus, the conclusions regarding impact significance presented above are the same and apply to the Project and the Project with the Deck Concept. **As such, construction and operation of the Project with the Deck Concept would comply with existing energy standards.**

(h) Conclusion Regarding Threshold (a)

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

efficiency standards. **Therefore, Project impacts related to energy use under Significance Threshold (a) would be less than significant during construction and operation, and would not cause wasteful, inefficient, and unnecessary consumption of energy.**

(i) Project with the Deck Concept

As demonstrated by the analyses of the seven criteria discussed above, the Project with the Deck Concept not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. While electricity, natural gas, and transportation fuel consumption would slightly increase due to the increase in outdoor lighting usage and increase in VMT associated with the additional temporary programming on the Deck, all other operational components related to the land uses proposed, compliance with regulations, and implementation of Project Design Features would be similar to that of the Project. Thus, the conclusions regarding impact significance presented above are the same and apply to the Project and the Project with the Deck Concept. **Therefore, impacts under the Project with the Deck Concept related to energy use under Significance Threshold (a) would be less than significant during construction and operation, and would not cause wasteful, inefficient, and unnecessary consumption of energy.**

(2) Mitigation Measures

Impacts regarding wasteful, inefficient, and unnecessary consumption of energy were determined to be less than significant without mitigation. Therefore, no mitigation measures are required. While energy impacts would be less than significant without mitigation, the Project would still implement Mitigation Measure TRAF-MM-1 to address significant transportation impacts, which requires implementation of a TDM Program that includes a variety of strategies that would further reduce Project-related trips and VMT, including subsidized/discounted daily or monthly public transit passes for office and commercial uses, as well as a commute trip reduction program for office and commercial workers (refer to Section IV.L, *Transportation*, of the Draft EIR for details regarding TRAF-MM-1).

(3) Level of Significance After Mitigation

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

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

(1) Impact Analysis

A detailed discussion of the Project's comparison with the applicable actions and strategies in the L.A.'s Green New Deal (Sustainable City pLAn 2019) is provided in

Section IV.E, *Greenhouse Gas Emissions*. As discussed, the Project is designed in a manner that is consistent with and not in conflict with relevant energy conservation plans that are intended to encourage development that results in the efficient use of energy resources. The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the Title 24 standards and CALGreen Code, which have been incorporated into the City's Green Building Code as amended by the City, to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Green Building Code). In addition to compliance with the City's Green Building Code, the Project would incorporate energy-and water conservation measures beyond City requirements as specified in Project Design Features GHG-PDF-1 and WS-PDF-1.

The Project would also be consistent with and not conflict with regional planning strategies that address energy conservation. As discussed above and in Section IV.E, *Greenhouse Gas Emissions*, as well as Section IV.H, *Land Use and Planning*, of this Draft EIR, SCAG's 2020-2045 RTP/SCS focuses on creating livable communities with an emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2020-2045 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, encouraging the reduction of building energy use, and increasing use of renewable sources. The Project's mixed use design and its increase in density on an infill site within a HQTA in proximity to transit, its proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations, and its walkable environment would achieve a reduction in VMT. These land use characteristics are included in the transportation fuel demand for the Project's mobile sources. Additional detailed information regarding these land use characteristics are provided in Section IV.A*, Air Quality* and Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR.

As a result, the Project would implement project design features and incorporate water conservation, energy conservation, landscaping, and other features consistent with applicable actions and strategies in the L.A.'s Green New Deal (Sustainable City pLAn 2019), including features that go beyond those specified by regulations such as the City's Green Building Ordinance. The Project's design would comply with existing energy standards and incorporate project design features to reduce energy consumption. **Therefore, the Project would not conflict with energy conservation plans and impacts would be less than significant.**

(a) Project with the Deck Concept

While electricity, natural gas, and transportation fuel consumption would slightly increase due to the increase in outdoor lighting usage and increase in VMT associated with the additional temporary programming on the Deck, all other operational components related to the project location, land uses proposed, compliance with regulations, and implementation of Project Design Features would be similar to that of the Project. The Project with the Deck Concept's design would comply with existing energy standards and incorporate project design features to reduce energy consumption. Thus, the conclusions regarding impact significance presented above are the same and apply to the Project and

the Project with the Deck Concept. In addition, as the Deck would increase the outdoor public open space by 132,000 square feet, this would further encourage utilization of alternative mode of transportation by increasing accessibility to pedestrian paths and bikeways. **Therefore, the Project with the Deck Concept would not conflict with energy conservation plans and impacts would be less than significant.**

(2) Mitigation Measures

Impacts regarding conflicts with or obstructing a state or local plan for renewable energy or energy efficiency were determined to be less than significant without mitigation. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

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

e) Cumulative Impacts

(1) Impact Analysis

Cumulative impacts occur when the incremental effects of a proposed project are significant when combined with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. As presented in Chapter III, *Environmental Setting*, of this Draft EIR, Table III-1, the City has identified 141 related projects located within the vicinity of the Project Site. The geographic context for the analysis of cumulative impacts on electricity is LADWP's service area, and the geographic context for the analysis of cumulative impacts on natural gas in SoCalGas' service area, because the Project and related projects are located within the service boundaries of LADWP and SoCalGas. While the geographic context for transportation-related energy use is more difficult to define, the City has determined to consider the Project in the context of County-wide consumption given the tendency for vehicles to travel within and through the County and the availability of County-level data. Growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

(a) Significance Threshold (a): Wasteful, Inefficient and Unnecessary use of Energy

(i) Electricity

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. However, LADWP, in coordination with the CEC, account for

future increases in service area demand based on various economic, population, and efficiency factors. LADWP relies on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, PEV projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.[83] In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would therefore account for the Project's and the related projects' electricity demand within its forecasts.[84] Thus, LADWP considers growth from related projects within its service area for the increase in demand for electricity, as well as the need for energy infrastructure, such as new or expanded energy facilities.

Thus, although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could affect future availability, the Project's use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient. The Project would also incorporate additional energy efficiency measures outlined in Project Design Features GHG-PDF-1 and WS-PDF-1 (refer to Section IV.E, *Greenhouse Gas Emissions*, and Section IV.N.2, *Water Supply*, of this Draft EIR). Related projects, as with the proposed Project, would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient or unnecessary use of electricity, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the proposed Project, would also be required to evaluate potential impacts related to local and regional supplies or capacity based on regional growth plans, such as the SCAG 2020-2045 RTP/SCS, and LADWP energy supply projections for long-term planning.

As such, the Project, considered together with related projects, would not result in cumulatively significant impacts related to wasteful, inefficient or unnecessary use of electricity.

(ii) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. However, SoCalGas predicts and plans for increases in gas demand. The 2020 California Gas Report states that "North American gas supplies will be sufficient to meet expected demand growth" despite an overall gas demand decrease

[83] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 70.
[84] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 67.

of 1.0 percent between 2020-2035.[85] As stated above, based on the 2020 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 884,749 million kBtu in 2025 (the Project's buildout year).[86] The Project would account for approximately 0.005 percent of the 2025 forecasted consumption in SoCalGas' planning area. Although Project development would result in the use of natural gas resources, which could affect future availability, the use of such resources would be on a relatively small scale, and would be reduced by measures rendering the Project more energy-efficient. As stated in Subsection 3.d.ii above, SoCalGas forecasts take into account projected population growth and development based on local and regional plans, and the Project's growth and development would not conflict with those projections. The Project would also incorporate additional energy efficiency measures outlined in Project Design Feature GHG-PDF-1 (refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR).

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

As such, the Project, considered together with related projects, would not result in cumulatively significant impacts related to wasteful, inefficient or unnecessary use of natural gas.

(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 net increase of approximately 2,369,945 gallons of gasoline and approximately 191,899 gallons of diesel per year. For comparison purposes, the transportation-related fuel usage for the Project would represent between approximately 0.067 percent of the 2019 annual on-road gasoline- and approximately 0.033 percent of the annual on-road diesel-related energy consumption in Los Angeles County (based on the available County fuel sales data), as shown in Appendix E of this Draft EIR.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs

[85] California Gas and Electric Utilities, 2020 California Gas Report, 2020, pages 4,10.
[86] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 103.

from the transportation sector, and reduce vehicle miles traveled which would reduce reliance on petroleum fuels.

The Project would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and a reduction in overall VMT. The Project Site is located at an infill location near a mix of existing commercial, hotel, studio/production, office, entertainment, and residential uses, and within an identified HQTA that is within a quarter-mile of multiple public transportation options, including Metro bus routes (e.g., 18, 60, 62, and 720). Therefore, operation of the Project would provide residents, employees, and visitors with transportation options, and the implementation of construction features would reduce idling times and construction transportation fuel use.

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

Since the Project would be consistent with the 2020-2045 RTP/SCS, its cumulative impact due to wasteful, inefficient or unnecessary use of transportation fuel would be less than significant.

(iv) Project with the Deck Concept

(a) Electricity

As analyzed above, the Project and the Project with the Deck Concept would have differences in quantified energy demands. As shown in **Table IV.C-3**, *Summary of Annual Net New Energy Use During Project Operation – Project with the Deck Concept*, the Project with the Deck Concept's annual net new energy demand would be approximately 26,518,298 kWh of electricity. This accounts for 0.099 percent of LADWP's projected electricity sales in 2025. However, the Project's electricity consumption, consistency with applicable energy plans, and its effect on energy infrastructure would be essentially the same under both scenarios. **As such, the Project with the Deck Concept, considered together with related projects, would not result in cumulatively significant impacts related to wasteful, inefficient or unnecessary use of electricity.**

(b) Natural Gas

As analyzed above, the Project and the Project with the Deck Concept would have differences in quantified energy demands. As shown in **Table IV.C-3**, *Summary of Annual Net New Energy Use During Project Operation – Project with the Deck Concept*, the Project with the Deck Concept's annual net new natural gas demand would be approximately 49,510,054 kBtu of natural gas. This accounts 0.005 percent of the 2025 forecasted annual natural gas consumption in SoCalGas' planning area. However, the Project's energy consumption, consistency with applicable energy plans, and its effect on energy infrastructure would be essentially the same under both scenarios. **As such, the Project with the Deck Concept, considered together with related projects, would not result in cumulatively significant impacts related to wasteful, inefficient or unnecessary use of natural gas.**

(c) Transportation Energy

As analyzed above, the Project and the Project with the Deck Concept would have differences in quantified transportation fuel demands. As shown in **Table IV.C-3**, *Summary of Annual Net New Energy Use During Project Operation – Project with the Deck Concept*, the Project with the Deck Concept's annual net new transportation fuel demand would be approximately 2,409,618 gallons of gasoline, and approximately 196,302 gallons of diesel fuel. This accounts 0.066 percent of County gasoline consumption and 0.033 percent of County diesel consumption based on the available County fuel sales data for the year. However, the Project's transportation fuel consumption, consistency with applicable energy plans, and its effect on energy infrastructure would be essentially the same under both scenarios. **As such, the Project with the Deck Concept, considered together with related projects, would not result in cumulatively significant impacts related to wasteful, inefficient or unnecessary use of transportation fuels.**

(v) Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary consumption of energy during construction or operation would be less than significant.

(a) Project with the Deck Concept

Based on the analysis provided above, the Project with the Deck Concept's contribution to cumulative impacts related to the wasteful, inefficient and unnecessary consumption of energy during construction or operation would be less than significant.

(b) Significance Threshold (b): State or Local Plan Analysis

(i) Electricity

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on

infrastructure capacity. However, as discussed above, LADWP and the CEC account for increases in demand and load forecast based on various economic, population, and efficiency factors and relies on multiple forms of data from various agencies.[87] In addition, LADWP considers projected Los Angeles County building permit amounts when determining its load forecast and would therefore account for the Project's and the related projects' electricity demand within its forecasts.[88]

Moreover, the Project would also incorporate energy efficiency measures outlined in Project Design Features GHG-PDF-1 and WS-PDF-1 (refer to Section IV.E, *Greenhouse Gas Emissions*, and Section IV.N.2, *Utilities and Service Systems - Water Supply*, of this Draft EIR) that go beyond applicable required City and State energy plans and standards. Related projects, as with the Project, would be required to evaluate electricity conservation features and compliance with applicable electricity efficiency plans and standards including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate consistency with the L.A.'s Green New Deal (Sustainable City pLAn 2019), and local and regional supplies or capacity based on regional growth plans, such as the SoCalGas energy supply projections for long-term planning.

As such, the Project's contribution to cumulative impacts due to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would be less than significant.

(ii) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. However, as discussed above, SoCalGas forecasts take into account projected population growth and development based on local and regional plans, and the Project's growth and development would not conflict with those projections.

The Project would also incorporate additional energy efficiency measures outlined in Project Design Feature GHG-PDF-1 (refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR) that go beyond applicable required City and State energy plans and standards. Related projects, as with the proposed Project, would be required to evaluate natural gas conservation features and compliance with applicable regulations including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate consistency with the L.A.'s Green New Deal (Sustainable City pLAn 2019), and local and regional supplies or capacity based on

87 LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 70.
88 LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 67.

regional growth plans, such as the SoCalGas energy supply projections for long-term planning.

As such, the Project's contribution to cumulative impacts due to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency 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. However, as discussed above, the Project would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and achieve a reduction in VMT resulting in an improved transportation efficiency level.

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

Since the Project would be consistent with the 2020-2045 RTP/SCS, its contribution to cumulative impacts related to potentially significant environmental impacts due to conflicting with or obstruction of a state or local plan for transportation energy efficiency would be less than significant.

(iv) Project with the Deck Concept

(a) Electricity

Buildout of the Project with the Deck Concept, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. However, as discussed above, LADWP and the CEC account for increases in demand and load forecast based on various economic, population, and efficiency factors and relies on multiple forms of data from various agencies.[89] In addition, LADWP considers projected Los Angeles County building permit

89 LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 70.

amounts when determining its load forecast and would therefore account for the Project with the Deck Concept's and the related projects' electricity demand within its forecasts.[90]

Moreover, the Project with the Deck Concept would also incorporate energy efficiency measures outlined in Project Design Features GHG-PDF-1 and WS-PDF-1 (refer to Section IV.E, *Greenhouse Gas Emissions*, and Section IV.N.2, *Utilities and Service Systems - Water Supply*, of this Draft EIR) that go beyond applicable required City and State energy plans and standards. Related projects, as with the Project with the Deck Concept, would be required to evaluate electricity conservation features and compliance with applicable electricity efficiency plans and standards including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project with the Deck Concept, would also be required to evaluate consistency with the L.A.'s Green New Deal (Sustainable City pLAn 2019), and local and regional supplies or capacity based on regional growth plans, such as the SoCalGas energy supply projections for long-term planning.

As such, the Project with the Deck Concept's contribution to cumulative impacts due to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would be less than significant.

(b) Natural Gas

Buildout of the Project with the Deck Concept, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. However, as discussed above, SoCalGas forecasts take into account projected population growth and development based on local and regional plans, and the Project with the Deck Concept's growth and development would not conflict with those projections.

The Project with the Deck Concept would also incorporate additional energy efficiency measures outlined in Project Design Feature GHG-PDF-1 (refer to Section IV.E, *Greenhouse Gas Emissions*, of this Draft EIR) that go beyond applicable required City and State energy plans and standards. Related projects, as with the Project with the Deck Concept, would be required to evaluate natural gas conservation features and compliance with applicable regulations including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project with the Deck Concept, would also be required to evaluate consistency with the L.A.'s Green New Deal (Sustainable City pLAn 2019), and local and regional supplies or capacity based on regional growth plans, such as the SoCalGas energy supply projections for long-term planning.

[90] LADWP, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 67.

As such, the Project with the Deck Concept's contribution to cumulative impacts due to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would be less than significant.

(c) Transportation Energy

Buildout of the Project with the Deck Concept, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. However, as discussed above, the Project with the Deck Concept would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project with the Deck Concept would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and achieve a reduction in VMT resulting in an improved transportation efficiency level.

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

Since the Project with the Deck Concept would be consistent with the 2020-2045 RTP/SCS, its contribution to cumulative impacts related to potentially significant environmental impacts due to conflicting with or obstruction of a state or local plan for transportation energy efficiency would be less than significant.

(v) Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would be less than significant.

(a) Project with the Deck Concept

Based on the analysis provided above, the Project with the Deck Concept's contribution to cumulative impacts related to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would be less than significant.

(2) Mitigation Measures

Cumulative impacts regarding energy were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

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

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