IV. Environmental Impact Analysis

B. Energy

1. Introduction

This section provides the information and analysis required by Public Resources Code (PRC) Section 21100(b)(3) and as described in Appendix F to the Guidelines for the Implementation of the California Environmental Quality Act.[1] Additionally, Appendix G of the 2019 State CEQA Guidelines checklist, Section VI, Energy, includes questions to assist lead agencies when assessing a project's potential energy impacts. The following section analyzes the Proposed Project's potential impacts on energy resources, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). Specifically, this section quantifies the existing energy demands from short-term construction activities and potential long-term impacts associated with the on-site land uses and the associated energy demands for the proposed development, and identifies applicable energy conservation features that are either proposed by design or otherwise regulated by applicable building codes and regulations. Detailed energy calculations can be found in Appendix D of this Draft EIR.

2. Environmental Setting

a) Regulatory Framework

(1) Federal

(a) Corporate Average Fuel Economy (CAFE) Standard's

Enacted by Congress in 1975, the Corporate Average Fuel Economy (CAFE) standard's purpose is to reduce energy consumption by increasing the fuel economy of cars and light trucks. The CAFE standards are fleet-wide averages that must be achieved by each automaker for its car and truck fleet, each year, since 1978. When these standards are raised, automakers respond by creating a more fuel-efficient fleet. CAFE standards are regulated by the United States Department of Transportation's (U.S. DOT) National Highway Traffic Safety Administration (NHTSA). The NHTSA sets standards to increase CAFE levels rapidly over the next several years, which will improve the nation's energy security and save consumer's money at the gas pump, while also reducing greenhouse

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

gas (GHG) emissions. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 miles per gallons (mpg). Currently, the U.S. DOT and the U.S. Environmental Protection Agency (U.S. EPA) propose the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which would amend existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026. The NHTSA and the U.S. EPA are currently seeking comment on this proposal.[2,3]

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by U.S. EPA and NHTSA. The Phase 1 medium- and 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.[4] U.S. EPA and NHTSA have also adopted the Phase 2 medium- and 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.[5]

(b) Energy Independence and Security Act

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

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

[2] *U.S. DOT, Corporate Average Fuel Economy (CAFE) Standards, accessed May 2019.*
[3] *U.S. DOT,NHTSA, Corporate Average Fuel Economy (CAFE), Laws and Regulations, accessed July 2019.*
[4] *U.S. EPA, NHTSA, Federal Register Volume 76, No. 179, Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, September 15, 2011.*
[5] *U.S. EPA, NHTSA, Federal Register Volume 81, No. 206, Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles – Phase 2, October 25, 2016.*

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

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

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."[6]

(2) State

(a) Clean Car Standards – Pavley, Assembly Bill 1493

In 2002 the California State Legislature adopted and the Governor signed AB 1493 (Chapter 200, Statutes 2002, Pavley), in an effort to reduce greenhouse gas emissions in response to the increasing threat of climate change to the well-being of California's citizens and the environment. AB 1493, directed the California Air Resources Board (CARB) to adopt the maximum feasible and cost-effective reductions in GHG emissions from light-duty vehicles. On September 24, 2009, CARB adopted amendments to the "Pavley" regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016 and later. It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, while improving fuel efficiency and reducing motorists' costs.[7]

(b) California Global Warming Solutions Act (AB 32)

As discussed in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, Assembly Bill (AB) 32 (Health and Safety Code Sections 38500–38599), also known as the California Global Warming Solutions Act of 2006, commits the state to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) with providing information, analysis, and recommendations to CARB regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. On

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

[7] *CARB, Clean Car Standards – Pavley, Assembly Bill 1493, accessed April 2019.*

July 2018, CARB announced that greenhouse gas pollution in California fell below 1990 levels, therefore achieving its 2020 greenhouse gas emissions goal set by AB 32.[8]

(c) California Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) program, which was established in 2002 by Senate Bill (SB) 1078, required that 20 percent of the available energy supplies in California come from renewable energy sources by 2017. In 2006, SB 107 accelerated the 20-percent mandate to 2010. These mandates apply directly to investor-owned utilities. In 2011, California Governor Jerry Brown signed into law Senate Bill 2X, which modified California's RPS program to require that both publicly- and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. In October 2015, Governor Brown signed into legislation Senate Bill 350 (SB 350), which requires retail sellers and publicly-owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. In 2018, Senate Bill 100 (SB 100) was signed into law, which again increases the RPS to 60 percent by 2030 and requires all of California's electricity to come from carbon-free resources by 2045. SB 100 became effective on January 1, 2019.[9]

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

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

[8] *CARB, "Climate Pollutants Fall Below 1990 Levels for First Time", website: https://ww2.arb.ca.gov/news/climate-pollutants-fall-below-1990-levels-first-time accessed May 2019.*

[9] *California Public Utilities Commission, California Renewables Portfolio Standard, website: https://www.cpuc.ca.gov/rps/, accessed March 2020.*

result in an increase in energy savings in the form of reduced fuel consumption from more fuel efficient engines.[10]

(e) California Air Resources Board

(i) Advanced Clean Cars Program

The Advanced Clean Cars Program was approved by CARB in 2012. It represents a new approach by controlling emissions from passenger vehicles. The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot, and GHG emissions. Components of this program are the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs, with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. The number of plug-in hybrid cars and zero-emission vehicles on California's roads and highways will increase and fuels, such as electricity and hydrogen, will be readily available for these new vehicle technologies.[11] In particular, implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered.

(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). 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.

(f) Senate Bill 1389

Senate Bill 1389 (SB 1389) requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC shall use these assessments and forecasts to develop

[10] *Office of Energy Efficiency & Renewable Energy, Energy Efficiency, website: https://www.energy.gov/eere/vehicles/fuel-efficiency, accessed May 2020.*

[11] *California Air Resources Board, Advanced Clean Cars Program, website: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about, accessed March 2020.*

energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety. The CEC adopts a new or updated Integrated Energy Policy Report (IEPR) every two years. The most recent IEPR was released in early 2018 and addressed a variety of issues, including, but not limited to, implementation of SB 350, electricity resource/supply plans, electricity and natural gas demand forecast, natural gas outlook, transportation energy demand forecasts, doubling energy efficiency savings, integrated resource planning, climate adaptation and resiliency, renewable gas, Southern California energy reliability, distributed energy resources, strategic transmission investment plan, and existing power plant reliability issues.[12]

(g) Title 24 Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the California Code of Regulations) ("Title 24 Standards") were established in 1978 in response to a legislative mandate to reduce California's energy consumption to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The standards are updated periodically (typically every three years) to allow consideration and possible incorporation of new energy efficiency technologies and methods.

The 2019 Standards went into effect on January 1, 2020, and improve upon the 2016 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 update to the Energy Efficiency Standards for Residential and Nonresidential Buildings focuses on several key areas to improve the energy efficiency of new constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential Standards include the introduction of photovoltaic into the prescriptive package, improvements for attics, walls, water heating, and lighting, whereas the major efficiency improvements to the nonresidential Standards include alignment with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2017 national standards. The 2019 Standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. Furthermore, the 2019 update requires that enforcement agencies determine compliance with CCR, Title 24, Part 6 before issuing building permits for any construction.[13]

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to

[12] *CEC, Final 2017 Integrated Energy Policy Report, accessed July 2019.*

[13] *California Energy Commission, 2019 Building Energy Efficiency Standards, December 2018, https://ww2.energy.ca.gov/publications/displayOneReport_cms.php?pubNum=CEC-400-2018-020-CMF, accessed December 2020.*

"improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality."[14] The CALGreen Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. As previously mentioned, the 2019 update to the CALGreen Code went into effect on January 1, 2020. The 2019 CALGreen Code improves upon the previously applicable 2016 CALGreen Code by updating standards for bicycle parking, electric vehicle charging, and water efficiency and conservation.

(3) Regional

(a) Southern California Association of Governments 2016-2040 RTP/SCS

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. On September 1, 2020, SCAG's Regional Council adopted an updated Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) known as the 2020–2045 RTP/SCS or Connect SoCal. As with the 2016–2020 RTP/SCS, the purpose of the 2020–2045 RTP/SCS is to meet the mobility needs of the six-county SCAG region over the subject planning period through a roadmap identifying sensible ways to expand transportation options, improve air quality and bolster Southern California long-term economic viability.[15] The goals and policies of the 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the Proposed Project would be consistent with the 2016–2040 RTP/SCS as discussed later in this section, the Proposed Project would also be consistent with the 2020–2045 RTP/SCS.[16] Because the 2020–2045 RTP/SCS was adopted by SCAG subsequent to both circulation of the Notice of Preparation (NOP) for the Project on February 20, 2019, and approval by LADOT of the Transportation Assessment for the Project on March 26, 2020, this section and the

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[14] *California Building Standards Commission, 2010 California Green Building Standards Code, (2010).*

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

[16] *For example, the Proposed Project would be consistent with both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS because it would increase urban density within an High Quality Transit Area (HQTA) located less than 0.5 miles from a planned Metro Purple light rail station and in close proximity to more than a dozen bus routes, would include transit-oriented development, and would implement TDM measures, all of which would reduce the City's per capita VMT and associated air emissions. Another example is that because the Proposed Project would be consistent with the City's existing General Plan land use designation and zoning of the Project Site, it has been accounted for in the regional growth projections in both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS.*

balance of this Draft EIR provided detailed analysis of the Proposed Project's consistency with the 2016–2040 RTP/SCS.

On April 7, 2016, SCAG adopted the 2016 RTP/SCS, which is an update to the previous 2012 RTP/SCS. The goals and policies of the 2016-2040 RTP/SCS build from the previous 2012-2035 RTP/SCS and provide strategies for reducing per capita vehicle miles traveled (VMT), which would result in corresponding decreases in per capita transportation-related fuel consumption. These strategies include reflecting the changing population and demands, focusing new growth around transit and High Quality Transit Areas (HQTAs), planning for growth around livable corridors, providing more options for short trips, and supporting local sustainability planning. To conserve energy, 86 percent of cities within the SCAG region have implemented community energy efficiency policies, with 80 percent of those cities implementing municipal energy efficiency policies and 76 percent implementing renewable energy policies.[17] A benefit to implementing the 2016-2040 RTP/SCS results in less energy and water consumption across the region, as well as lower transportation costs for households.[18] Refer to Section IV.E, Land Use and Planning, of this Draft EIR for additional details regarding the Proposed Project's consistency with the applicable land use policies of the 2016-2040 RTP/SCS.

(4) Local

(a) The Green New Deal Sustainable City pLAn 2019

In 2015, Mayor Eric Garcetti released the City's first Sustainable City pLAn (Sustainable City pLAn) through Executive Directive No. 7. In 2019, the Mayor's office adopted The Green New Deal Sustainable City pLAn 2019 (L.A.'s Green New Deal) as an update to the 2015 Sustainable City pLAn. L.A.'s Green New Deal establishes accelerated goals for a cleaner environment and a stronger economy, with commitment to equity as its foundation and sets the following targets for a sustainable city:

- Supply 55 percent renewable energy by 2025; 80 percent by 2036; and 100 percent by 2045;
- Source 70 percent of our water locally by 2035, and capture 150,000 acre ft/yr (AFY) of stormwater by 2035;
- Reduce building energy use per square foot for all types of buildings 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050;

[17] *Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategies, Page 5, adopted April 2016.*

[18] *Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategies, Page 165, adopted April 2016.*

- Reduce Vehicle Miles Traveled per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050;
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035;
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035, and 100 percent by 2050;
- Increase the percentage of zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050;
- Create 300,000 green jobs by 2035; and 400,000 by 2050;
- Convert all city fleet vehicles to zero emission where technically feasible by 2028;
- Reduce municipal GHG emissions 55 percent by 2025 and 65 percent by 2035 from 2008 baseline levels, reaching carbon neutral by 2045.

(b) City of Los Angeles Green Building Code

In 2010, the City adopted the 2010 CALGreen, with amendments, as Ordinance No. 181,480, thereby codifying provisions of CALGreen as the new "L.A. Green Building Code," applicable to new development projects. As amended by Ordinance 186,488 in 2019, the L.A. Green Code incorporates by reference portions of the 2019 Edition of the CALGreen Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alterations to non-residential and high-rise residential buildings. Chapter IX, Article 9, Division 5 includes mandatory measures for newly constructed non-residential and high-rise residential buildings. The L.A. Green Building Code includes some requirements that are more stringent than State requirements such as increased requirements for electric vehicle charging spaces and water efficiency, which results in potentially greater energy demand reductions from improved transportation fuel efficiency and water efficiency. Specific measures in the L.A. Green Building Code intended to improve building energy efficiency and conserve energy are included as LAMC Sections 99.04.201 through 99.04.505 for residential mandatory measures and as LAMC Sections 99.05.201 through 99.05.504 for non-residential mandatory measures. These energy efficiency measures include renewable energy, indoor and outdoor water uses, water reuse systems, waste reduction, pollutant control, and interior moisture control measures.

(c) 2017 Final Power Strategic Long-Term Resource Plan (SLTRP)

In April 2018, the Los Angeles Department of Water and Power (LADWP) approved the Power Strategic Long-Term Resource Plan (SLTRP), which increases LADWP's planning horizon, from 20 years ending in 2037 and extending through 2050, in order to better align with Statewide GHG emissions goals and align with Los Angeles' 100 percent clean energy initiative, detailed in the City's Los Angeles Green New Deal. The goal of the 2017 SLTRP is to identify a portfolio of generation resources and power system assets that meets the City's future energy needs at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards.

The 2017 Power SLTRP outlines an aggressive strategy for LADWP to accomplish its goals, comply with regulatory mandates under the State's RPS regulations, and provide sufficient resources over the next 20 years. The 2017 Power SLTRP incorporates the Enforcement Procedures for the RPS for Local Publicly Owned Electric Utilities pursuant to Section 399.30(l) of the California Renewable Energy Resources Act (SB 2 [1X]) and identifies optional compliance measures found in the Regulations. The 2017 Power SLTRP identifies a combination of GHG reduction strategies, including early coal replacement two years ahead of schedule by 2025; accelerating LADWP's RPS to 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036; doubling of energy efficiency from 2017 through 2027; repowering coastal in-basin generating units with new, highly efficient potential clean energy projects by 2029 to provide grid reliability and critical ramping capability; accelerating electric transportation to absorb GHG emissions from the transportation sector; and investing in the Power System Reliability Program to maintain a robust and reliable power system. Thus, the 2017 Power SLTRP would achieve and exceed mandates established in previous RPS. In order to achieve a 100 percent clean energy portfolio, these strategies listed in the 2017 Power SLTRP are provided for LADWP to incorporate in order to reach the City's overall 100 percent clean energy initiative, as part of the City's Green New Deal.

With respect to the status of LADWP's RPS portfolio, LADWP achieved the state legislated goal of 32 percent of all energy sources coming from renewable energy in 2018.[19]

(d) City of Los Angeles Solid Waste Integrated Resources Plan

Under the City's Solid Waste Integrated Resources Plan (SWIRP), the City committed to reaching Zero Waste by diverting 70 percent of the solid waste generated in the City by

[19] *California Energy Commission, Utility Annual Content Labels for Los Angeles Department of Water and Power, 2018.*

2013, diverting 90 percent by 2025, and becoming a zero waste city by 2030.[20] Moreover, state law requires mandatory commercial recycling in all businesses and multi-family complexes and imposes additional reporting requirements on local agencies, including the City. In order to meet these requirements and goals, the City has established an exclusive, competitive franchise system for the collection, transportation and processing of commercial and multi-family solid waste that would aid the City in meeting its diversion goals by, among other things: (i) requiring franchises to meet diversion targets; (ii) increasing the capacity for partnership between the City and solid waste haulers; (iii) allowing the City to establish consistent methods for diversion of recyclables and organics; (iv) increasing the City's ability to track diversion, which would enable required reporting and monitoring of state mandated commercial and multifamily recycling; (v) increasing the City's ability to ensure diversion quality in the processing facilities handling its waste and recyclables; and (vi) increasing the City's capacity to enforce compliance with federal, state, county, and local standards. As reported by the Bureau of Sanitation, the City reached 72 percent diversion rate in 2010, the base year for SWIRP. By 2011, the City achieved 76.4 percent diversion rate.[21]

b) Existing Conditions

(1) Electricity

(a) Los Angeles Department of Water of Power (LADWP)

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

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measures 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

[20] *City of Los Angeles, Department of Public Works, Bureau of Sanitation, Zero Waste Progress Report, March, 2013.*

[21] *City of Los Angeles, Department of Public Works, Bureau of Sanitation, Zero Waste Progress Report, March, 2013 (at page 46).*

one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.

The LADWP power system serves approximately 4 million people and is the nation's largest municipal utility. Its service territory covers the City of Los Angeles and many areas of the Owens Valley, with annual sales exceeding 26 million megawatt-hours (MWh). LADWP is a "vertically integrated" utility, both owning and operating the majority of its generation, transmission and distribution systems. LADWP strives to be self-sufficient in providing electricity to its customers and does so by maintaining generation resources that are equal to or greater than its customers' electrical needs.

LADWP obtains electricity from various generating sources that utilize coal, nuclear, natural gas, hydroelectric, and renewable resources to generate power. LADWP obtains power from four municipally-owned power plants within the Los Angeles Basin, LADWP Hydrogenerators on the Los Angeles Aqueduct, shared-ownership generating facilities in the Southwest, and also purchases power from the Southwest and Pacific Northwest. LADWP also purchases excess power, as it is made available, from self-generators interconnected with the LADWP within the City.

According to LADWP's 2017 Power SLTRP, LADWP has a net dependable generation capacity greater than 7,531 MW.[22] On August 31, 2017, LADWP's power system experienced a record instantaneous peak demand of 6,432 MW.[23] In 2018, approximately 32 percent of LADWP's 2018 electricity mix was from renewable sources, which is similar to the 31 percent statewide percentage of electricity purchases from renewable sources.[24] The annual electricity sale to customers for the 2016-2017 fiscal year was approximately 22,878 million GWh.[25]

(b) Existing Electricity Consumption

The LADWP currently provides electricity to the Project area with all required infrastructure present. The Development Site is developed with approximately 151,048 square feet of retail commercial land uses including 144,963 square feet of general retail space and 6,085 square feet of restaurant uses. As shown in Table IV.B-1, Estimated Existing Electricity Use, it is estimated that existing uses on the Development Site currently consume approximately 2,607,637 kWh of electricity per year.

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[22] *Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resources Plan (SLTRP), December 2017, at p. 17.*

[23] *Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resources Plan (SLTRP), Power Facts & Figures, pg. ES-1, December 2017.*

[24] *California Energy Commission, Utility Annual Content Labels for Los Angeles Department of Water and Power, 2018.*

[25] *Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resources Plan (SLTRP), Appendix A, Load Forecasting, pg. A-6, December 2017.*

Table IV.B-1
Estimated Existing Electricity Use

Land Use	Size	Total Electricity Demand (kWh/year) [a]
Regional Shopping Center	144,963 sf	2,313,610
Quality Restaurant	6,085 sf	294,027
Total Existing Electricity Demand:		**2,607,637**

Notes: sf =square feet; kWh = kilowatt-hour
[a] *SCAQMD, CalEEMod Version 2016.3.2, See Appendix D to this Draft EIR.*
Parker Environmental Consultants, 2020.

(2) Natural Gas

(a) Southern California Gas Company (SoCalGas)

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).

The Southern California Gas Company (SoCalGas), a subsidiary of Sempra Energy (the nation's largest natural gas supplier), provides natural gas to the City of Los Angeles through existing gas mains located under the streets. Natural gas service is provided in accordance with the SoCalGas' policies and extension rules on file with the CPUC at the time contractual agreements are made. The availability of natural gas is based upon present conditions of gas supply and regulatory policies. As a public utility, SoCalGas is under the jurisdiction of the CPUC but can also be affected by actions of federal regulatory agencies. Should these agencies take any action that affects gas supply or the conditions under which service is available, gas service would be provided in accordance with those revised conditions.

SoCalGas, along with five other California utility providers released the 2018 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.[26]

In 2017, gas supplies available to SoCalGas from California sources averaged 323 million cubic feet per day (cf/day).[27] Based on the 2018 California Gas Report, SoCalGas projects total natural gas demand to decrease at an annual rate of 0.74 percent per year from 2018 to 2035. This decrease is due to modest economic growth, CPUC-mandated energy efficiency standards and programs, tighter standards created by revised Title 24 codes and standards, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI).[28] Thus, with the natural gas consumption becoming more efficient and decreasing, the SoCalGas' projection for natural gas also decreases. Interstate pipeline delivery capability into SoCalGas on any given day is theoretically approximately 6,665 million cf/day based on the Federal Energy Regulatory Commission (FERC) Certificate Capacity or SoCalGas' estimated physical capacity of upstream pipelines. SoCalGas' storage fields attain a combined theoretical storage working inventory capacity of 137.1 billion cf; of that, 112.5 billion cf is allocated to residential, small industrial, and commercial customers. Based on the 2018 California Gas Report (Table 2-SCG), the CEC estimates natural gas consumption within the SoCalGas' planning area will be approximately 2,480 million cf/day in 2023 (the Proposed Project's buildout year).

(b) Existing Natural Gas Demand

As noted above, the Development Site is currently developed with approximately 151,048 square feet of retail commercial land uses including 144,963 square feet of general retail space and 6,085 square feet of restaurant uses which currently generate a demand for natural gas. As shown in Table IV.B-2, Estimated Existing Natural Gas Demand, existing natural gas demand on the Development is estimated to be 1,689,853 kilo British thermal unit per year (kBTU/yr) or approximately 138,004 cf/month.

[26] *California Gas and Electric Utilities, 2018 California Gas Report, accessed November 2018.*
[27] *Ibid.*
[28] *AMI is linked to the Advanced Meter Project. The Advanced Meter Project upgrades existing natural gas meters with a wireless communication device, which will automatically read and transmit hourly gas usage information through a two-way communication network to customer and billing center. The Advanced Meter Project provides customers with more frequent and detailed natural gas use information to help identify ways to better control costs and manage usage.*

Table IV.B-2
Estimated Existing Natural Gas Demand

Land Use	Size	Total Natural Gas Demand (kBTU/yr) [a]	Total Natural Gas Demand (cf/month) [b]
Regional Shopping Center	144,963 sf	263,833	21,546
Quality Restaurant	6,085 sf	1,426,020	116,458
Total Existing Natural Gas Demand:		**1,689,853**	**138,004**

Notes: sf =square feet; kBTU/year = kilo British thermal unit per year; cf = cubic feet
[a] *SCAQMD, CalEEMod Version 2016.3.2, See Appendix D to this Draft EIR.*
[b] *1kBTU is equivalent to 0.98 cubic feet of natural gas.*
Source: Parker Environmental Consultants, 2020.

(3) Transportation Energy

Different types of energy sources, or fuels, are used for transportation in the U.S., which include petroleum products (e.g., gasoline, diesel, jet fuel, residual fuel oil, and propane), biofuels (e.g., ethanol and biodiesel), natural gas, and electricity. Petroleum-based fuels account for about 90 percent of California's transportation energy sources. Gasoline remains the dominant fuel within the transportation sector, with diesel fuel and aviation fuels following. The transportation sector generates the most GHG emissions and uses the most energy in California. In recognition of these challenges, California has been enacting policies and goals to shift the transportation sectors toward cleaner, sustainable fuels and more efficient technology vehicles.

Though California's population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.6 billion gallons in 2017 to between 12.1 billion and 12.6 billion gallons in 2030, a 19-percent to 22-percent reduction. This decline comes in response to both increasing vehicle electrification and higher fuel economy for new gasoline vehicles. The CEC projects that the amount of alternative fuel (e.g., electricity, natural gas, hydrogen, ethanol) consumed within the transportation sector will increase in the future.[29,30]

Currently, the 144,963 square feet of general retail space and 6,085 square feet of restaurant uses that occupy the Development Site generate a demand for transportation energy as a result of the vehicle trips traveling to and from the Development Site. Table IV.B-3, Estimated Existing Transportation Energy Use, below, provides a summary of the estimated amount of diesel and gasoline fuel consumed from vehicles traveling to and from the Development. The amount of diesel and gasoline fuel use associated with the

[29] *CEC, Final 2017 Integrated Energy Policy Report, accessed July 2019.*
[30] *CEC, Revised Transportation Energy Demand Forecast, 2018-2030, February 2018.*

existing Development Site were calculated assuming an average fuel efficiency of 23.27 miles per gallon (mpg) for gasoline and 9.09 mpg for diesel (based on CARB's EMFAC emissions model for the South Coast Air Basin in 2018) and the estimated annual vehicle miles traveled (VMTs) generated by the existing land uses within the Development Site. Based on these input assumptions, it is estimated that the trips associated with the operation of the existing commercial uses on-site consume a total of approximately 544,556 gallons of transportation fuel including approximately 76,484 gallons of diesel and 468,072 gallons of gasoline per year.[31]

Table IV.B-3
Estimated Existing Transportation Energy Use

Fuel Type	Fleet Factor	Annual VMTs (miles) [a]	Fuel Rate (mpg) [b]	Total Fuel Demand (gallons/year)
Diesel	0.06	695,236	9.09	**76,484**
Gas	0.94	10,892,028	23.27	**468,072**
TOTALS:	***100%***	***11,587,264***	**--**	***544,556***

Notes: VMTs = vehicle miles traveled; mpg = miles per gallon
[a] *See Appendix E, Greenhouse Gas Emissions: Total Annual VMTs from Operational Mobile Sources.*
[b] *EMFAC2017 Emissions Inventory, 2018 Calendar Year (See Appendix D, Energy Demand Calculations.*

Source: Parker Environmental Consultants, 2020.

3. Environmental Impacts

a) Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, a project may have a significant environmental impact on energy if it would:

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

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

With regard to Threshold (a), above, the following analysis relies upon Appendix F of the CEQA Guidelines as well as the L.A. CEQA Thresholds Guide. Appendix F of the CEQA Guidelines was prepared in order to ensure that EIRs include a discussion of the potential energy impacts of a proposed project, with a particular emphasis on avoiding or

[31] *See Energy Calculations Worksheets included as Appendix D in this Draft EIR.*

reducing inefficient, wasteful, and unnecessary consumption of energy. PRC Section 21100(b)(3) states that an EIR shall include a detailed statement setting forth "[m]itigation measures proposed to minimize significant effects of the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." Appendix F lists the following factors to be considered in the environmental impact analysis.

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

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

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

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

5) *The effects of the project on energy resources.*

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

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

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

8) *Whether the Project conflicts with adopted energy conservation plans.*

With regard to Threshold (b), the Proposed Project will be evaluated for consistency with adopted energy conservation plans and policies that are applicable to the Proposed Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CalGreen Code, and the L.A. Green Building Code. Also, as discussed in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, the energy conservation analysis addresses the Proposed Project's consistency with the SCAG 2016-2040 RTP/SCS which is based on regional growth projections and includes goals to reduce regional vehicle miles traveled (VMT) and corresponding decrease in fuel consumption.

b) Methodology

CEQA Guidelines Appendix F recommends quantification of a project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed. The Proposed Project's energy requirements were calculated for the Proposed Project's one-time energy use during construction activities and by comparing the difference between the existing annual baseline energy use and the Proposed Project's anticipated annual operational energy demands for electricity, natural gas and transportation-related fuel. The specific assumptions and methodology for each of these scenarios is summarized below.

(1) Construction

Construction of the Proposed Project would generate an increased demand for electricity use related to the treatment and conveyance of water for dust suppression activities during the excavation and grading phase. No natural gas consumption would occur during the construction period as no construction equipment using natural gas as a fuel source would be used. Non-renewable resources such as petroleum based diesel and gasoline fuels would be consumed to power heavy construction equipment and motor vehicles associated with construction workers, vendors, and haul trucks traveling to and from the Development Site.

A quantitative assessment of the electricity, diesel, and gas fuel use during construction was provided to account for energy use during the proposed construction activities. Quantifying the amount of electricity for lighting and electronic equipment during the construction period was assumed to be negligible since most of the construction equipment would be gasoline and diesel-powered and any electrical demands would be less than the demand generated by the existing site operations. To calculate the amount of transportation energy (gasoline and diesel) consumed during construction, the equipment usage, horsepower, load factors, and fuel rates from the construction phases and activities calculated in the SCAQMD's recommended California Emissions Estimator Model (*CalEEMod*, *Version 2016.3.2)*. Fuel consumed by diesel and gasoline engines during the construction phase was calculated based on EMFAC2017 (v1.0.2) emissions and construction worker trip and haul truck VMTs as calculated in the CalEEMod program. The calculation worksheets are provided in Appendix D, Energy Conservation Worksheets, to this Draft EIR.

(2) Operation

The amount of electricity and natural gas usage for the existing baseline and Proposed Project were estimated using the electricity generation rates and natural gas usage rates provided in the CalEEMod program. For the existing uses, the CalEEMod program was based on historic Title 24 building energy conservation standards to account for the fact that the existing structures within the proposed Development Site were built prior to 2005. For estimating the Proposed Project's building energy usage, the CalEEMod program's default energy calculations are based on the 2016 Title 24 Standards. As discussed above, the Title 24 Standards were updated in 2019, and the Proposed Project would be subject to the 2019 Standards. Thus, the estimated energy estimates provided herein are therefore conservative since 2016 Title 24 Standards are less stringent than the applicable 2019 Title 24 Standards. Additionally, certain requirements under the L.A. Green Building Code, such as mandating a reduction in water usage by 20 percent over baseline water usage (Ordinance No. 184,248) are incorporated into the Proposed Project's estimated energy use. The Proposed Project's estimated electricity and natural gas demands were analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies to determine if these two energy utility companies would be able to meet the Proposed Project's electricity and natural gas demands.

Energy impacts associated with transportation during operation were also assessed. Daily trip generation used in this analysis was based on the Supplemental Traffic Analysis for the Proposed Mixed-Use Project at 6300 W. 3rd Street -Vehicle Miles Traveled Analysis (Supplemental Traffic Analysis), prepared by Linscott, Law and Greenspan (See Appendix H.1 to this Draft EIR). As discussed therein, Project-related VMT was calculated using the LADOT VMT Calculator *(Version 1.2)*. The VMT Calculator was developed by the City and LADOT to comply with SB 743, which requires lead agencies to adopt VMT criteria to determine transportation related impacts. Weekend project trips were based on the Institute of Transportation Engineers trip generation factors for the applicable land uses. The daily Project-related VMT were then input into CalEEMod, which calculated the annual VMT. The resulting annual VMT was used as part of the GHG analysis included in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR. Based on this annual VMT, gasoline and diesel consumption rates were calculated using the aggregate miles per gallon calculated using EMFAC2017 for the base year (2018) and future buildout year (2023), respectively. The vehicle fleet mix for vehicles anticipated to visit the Development Site was calculated consistent with the CalEEMod default for the South Coast Air Basin. Supporting calculations are provided in Appendix D to this Draft EIR.

To calculate the amount of gasoline consumed during each operational year of the Proposed Project, the total VMTs from LADOT's VMT Calculator Version 1.2 were manually inputted into the CalEEMod program along with the weekend and pass-by trip estimates.[32] (See Appendix D, Energy Conservation Worksheets – Operational Fuel Calculations, to this Draft EIR). Based on EMFAC2017 data, the average fuel efficiency for gasoline and diesel fuel was estimated to be 23.27 mpg for gasoline vehicles and 9.09 mpg for diesel vehicles for the 2018 base year and 26.75 mpg for gasoline vehicles and 10.74 for diesel vehicles for the 2023 Project buildout year.[33] These calculations were used to determine if the Proposed Project would cause the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F guidelines and CEQA Guidelines Appendix G.

c) Project Design Features

No specific project design features are proposed with regard to energy conservation. However, the Proposed Project would include project design features associated with reducing the Project's air quality and GHG emissions that would serve to improve energy efficiency and avoid or reduce the wasteful, inefficient, and unnecessary consumption of energy during construction and operation, and which are reflected in the analysis below. See PDF-AQ-1, in Section IV.A, Air Quality, and PDF-GHG- 1 in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR.

PDF-AQ-1 specifies that where power poles are available, electricity from power poles and/or solar-powered generators rather than temporary diesel or gasoline generators will be used during construction. This measure would further reduce the use of fossil fuel during construction. PDF-GHG-1 prohibits the installation of hearths/fireplaces in the residential units. This measure would decrease the Proposed Project's use of natural gas and is reflected in the quantification of the Proposed Project's energy use.

[32] *LADOT's VMT Calculator is based on weekday VMTs and does not factor in weekend or pass-by-trips for purposes of calculating traffic VMT impacts on a per capita basis pursuant to CEQA Guidelines Section 15064.3. As such, additional inputs were factored into the CalEEMod model to account for pass-by-trips and weekend trips. See Appendix C, Air Quality Modeling Worksheets - CalEEMod Assumptions and Data Input Modifications, for a detailed explanation of these input assumptions.*

[33] *Fuel efficiency estimates were based on EMFAC2017 (v1.0.2) Emissions Inventory data. See Appendix D, Energy Demand Worksheets.*

d) Analysis of Project Impacts

(1) Impact Analysis

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

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

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

(a) Construction

Construction of the Proposed Project would generate an increased demand for energy in the form of electricity and transportation fuels (i.e., gasoline, and diesel fuel). Construction equipment and construction activities typically do not consume natural gas. Therefore, a majority of energy used for the construction process is transportation energy, such as diesel fuel, gasoline fuel, and electricity, which are discussed below.

(i) Electricity

The Proposed Project's construction activities would increase the demand for electricity use related to the treatment and conveyance of water for dust suppression activities during the excavation and grading phase. Although this demand is generated off site and associated with system infrastructure, it is estimated that the Proposed Project's use of watering the Development Site would generate a demand of 7,953 kWh of electricity, or approximately 73 kWh per day throughout the building demolition and grading phases when watering activities would occur.

Electricity would also be utilized at the Development Site for the temporary use of a portable construction trailer and hand-held construction tools such as saws, drills, and air compressors. Electricity is currently supplied to the Development Site by the LADWP. Is it estimated that the temporary construction trailer would generate a total demand of 36,640 kWh during the entire construction schedule.[34] When not in use, electric

[34] *It is estimated the construction trailer would generate a demand of 12,990 kWh per year (see CalEEMod worksheets in Appendix D, Energy Calculations). Assuming an approximate 32 month construction schedule the total electricity usage would be approximately 36,640 kWh for the entire construction period.*

equipment would be powered off so as to avoid unnecessary energy consumption. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and would represent a small fraction of the net annual operational electricity demand of the existing uses. Although the electricity demands from construction power tools is too speculative to quantify, the availability and use of electric powered tools at the construction site would reduce demands for gasoline or diesel powered generators and equipment and would vary during each phase of construction. Replacing diesel-fueled construction equipment with electric-powered equipment would reduce diesel fuel combustion on the Development Site. Additionally, where power poles are available, electricity from power poles and/or solar-powered generators rather than temporary diesel or gasoline generators will be used during construction, as described in Project Design Feature PDF-AQ-1. The estimated construction electricity usage would also be offset by the reduction in electricity demand from the existing commercial land uses that would be demolished. The existing electricity demand at the Development Site is approximately 2,607,637 kWh/year. As compared to the existing electricity demand, the amount of annual electricity use during construction would be approximately 20,943 kWh/year[35], which represents approximately 0.9 percent of the existing annual electricity use at the Development Site. As such, the energy requirements and energy use during construction would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

(ii) 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. Furthermore, the existing natural gas usage at the Development Site of approximately 1,689,853 kBTU/yr or 138,004 cf/month of natural gas demand would no longer be required because the existing commercial uses would be demolished. As such, the energy requirements and energy use of the Project related to natural gas during construction would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

(iii) Transportation Fuels

Transportation energy would be consumed during the demolition, excavation, and construction phases of the Proposed Project in the form of petroleum-based fuels

[35] *Based on the estimated annual electricity use of the construction trailer and the estimated electricity demand generated by soil watering activities during demolition and excavation/grading (12,990 kWh/year + 7,953 kWh = 20,943 kWh/year).*

associated with the use of off-road construction vehicles and equipment on the Development Site, construction worker travel to and from the Development Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities). Although exact figures cannot be determined until building permits are issued, it is expected that the heavy equipment involved in the demolition, excavation, and construction phases of the Proposed Project would include concrete/industrial saws, excavators, bulldozers, tractors, loaders, backhoes, graders, aerial lifts, air compressors, cement mixer trucks, cranes, generator sets, pumps, welders, rollers, and pavers. In addition, haul trucks would be used to transport excavated earth and building material to material recycling centers and area landfills. It is assumed that the majority of hauling would occur during the demolition and excavation phases.

In order to quantify the amount of diesel and gasoline fuel utilized for the Proposed Project's construction, the equipment usage, horsepower, load factors, and fuel rates from the construction phases and activities calculated in the CalEEMod program for the Proposed Project were utilized to estimate the gallons of diesel and gasoline consumed (Appendix D, Energy Conservation Worksheets).

Table IV.B-4, below, shows the total estimated electricity and transportation energy consumed during the entire construction phase. As shown, construction of the Proposed Project would consume a total of approximately 20,943 kWh of electricity, and 185,815 gallons of transportation fuel, including 132,033 gallons of diesel and 53,782 gallons of gasoline.

Table VI.B-4
Summary of Energy Usage During Construction

Fuel Type	Quantity
Electricity	
Water Use	**7,953 kWh**
Temporary Office Trailer	**12,990 kWh**
Subtotal Electricity	**20,943 kWh**
Gasoline	
On-Road Vehicles (Workers Trips)	**53,782 gallons**
Diesel	
On Road Construction Equipment (Vendors/Deliveries)	41,148 gallons
On Road Construction Equipment (Haul Trips)	38,760 gallons
Off-Road Construction Equipment	52,125 gallons
Subtotal Diesel	***1*32,033 *gallons***
Total Transportation Energy	**185,815 gallons**

Notes: kWh = kilowatt hour
Source: Parker Environmental Consultants, 2020; Calculations provided in Appendix D, Energy Conservation Worksheets, to this Draft EIR.

Trucks and equipment used during proposed construction activities would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. In addition to reducing criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy and reduce fuel consumption. In addition, on-road vehicles (i.e., haul trucks, worker vehicles) would be subject to Federal fuel efficiency requirements. Therefore, the Proposed Project's construction activities would comply with existing energy standards with regard to transportation fuel consumption. As such, the demand for petroleum-based fuel during construction would not cause wasteful, inefficient, and unnecessary use of energy.

Furthermore, due to the relatively short duration of the construction process, and the fact that the extent of fuel consumption is inherent to construction projects of this size and nature, fuel consumption impacts would not be considered a wasteful, inefficient, or unnecessary consumption of fuel. The energy demands during construction would be typical of construction projects of this size and would not necessitate additional energy facilities or distribution infrastructure. As such, the energy requirements and energy use of the Proposed Project related to petroleum-based fuels during construction would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

(b) Operation

During operation of the Proposed Project, energy would be consumed for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, electronics, office equipment, and commercial machinery (including kitchen appliances). Energy would also be consumed during the Proposed Project operations related to water usage, solid waste disposal, and vehicle trips. As shown below, the Proposed Project would result in a net energy demand including approximately 3,904,735 kWh of electricity per year, 367,981 cubic feet of natural gas per month, 158,436 gallons of gasoline per year, and 23,118 gallons of diesel per year.

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 the Proposed Project operations. Project removal activities of the structures constructed under this Project would include demolition or abandonment of the site. However, it is not known when or if the Proposed Project would be removed. Therefore, analysis of energy usage related to Project removal activities would be too speculative for evaluation. For this reason, energy usage related to Project removal was not analyzed.

(i) Electricity Use

Development of the Proposed Project would increase the existing demand for electricity service in the Project area. The Proposed Project would be able to connect to and be served by the existing power grid. The total electricity demand from the Proposed Project is approximately 6,512,372 kWh/year. The existing buildings and parking lot use approximately 2,607,637 kWh/year. Therefore, as shown in Table IV.B-5, below, the Proposed Project's estimated net increase in electricity demand is approximately 3,904,735 kWh/year.

Table IV.B-5
Proposed Project's Estimated Electricity Demand

Land Use	Size	Total Electricity Demand (kWh/year) [a]
Existing Uses		
Regional Shopping Center	144,963 sf	2,313,610
Quality Restaurant	6,085 sf	294,027
Total Existing Electricity Demand:		**2,607,637**
Proposed Uses		
Multi-Family Residential	331 du	1,310,790
Restaurant	7,500 sf	331,050
Retail (Supermarket)	63,082 sf	2,354,850
Commercial/Retail	13,412 sf	181,062
Parking Structure	996 spaces	2,334,620
Total Proposed Project Electricity Demand:		**6,512,372**
Existing Electricity Demand (to be demolished):		*-2,607,637*
Net Total Electricity Demand:		**3,904,735**

Notes: sf =square feet; du = dwelling unit; kWh = kilowatt-hour
[a] *SCAQMD, CalEEMod Version 2016.3.2, See Appendix D to this Draft EIR.*
Source: Parker Environmental Consultants, 2020.

As required by the City of Los Angeles Green Building Code and 2019 Title 24 Standards, the Proposed Project would be required to incorporate eco-friendly building materials, systems, and features, including Energy Star appliances, water saving and low-flow fixtures, non-VOC paints and adhesives, drought tolerant planting, and high performance building envelopment. With these modern energy-efficient fixtures and appliances, the Proposed Project would promote energy conservation in accordance with the policies identified in Title 24, the L.A. Green Building Code, L.A's Green New Deal - Sustainable City pLAn 2019, LADWP's 2017 SLTRP, and the City of Los Angeles General Plan Framework. It should be noted that the estimate of the Proposed Project's energy use is conservative, as it only factors in compliance with 2016 Title 24 Standards. The Proposed Project would be required to comply with the City of Los Angeles Green Building Code

and 2019 Title 24 Standards, which sets additional compliance measures to further promote energy conservation efforts. Thus, implementation of regulatory compliance measures that meet the L.A. Green Building Code energy efficiency requirements and 2019 Title 24 Standards would further reduce demand for electricity, compared to electricity demand estimated below, which only factors compliance with 2016 Title 24 Standards. As such, the energy requirements and energy use of the Project related to electricity during operation would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

(ii) Natural Gas Use

The Proposed Project would increase demand for natural gas service on the Development Site. The total natural gas demand from the Proposed Project is approximately 6,195,726 kBTU/year. The existing buildings and parking lot use approximately 1,689,853 kBTU/year. Therefore, as shown in Table IV.B-6, below, the Proposed Project's net natural gas demands are estimated to be approximately 4,505,873 kBTU/year, or approximately 367,981 cf/month. The Proposed Project would promote energy conservation in accordance with the policies identified in 2019 Title 24 Standards, the L.A. Green Building Code, and LA's Green New Deal - Sustainable City pLAn 2019. The Proposed Project would also not include any hearths and/or fireplaces within the proposed residential units, which require natural gas (see PDF-GHG-1). Similar to electricity use, the increased energy conservation factors resulting from compliance with the 2016 Title 24 Standards are accounted for in the CalEEMod's calculation of the Proposed Project's natural gas use. Implementation of regulatory compliance measures mandated by the L.A. Green Building Code would further reduce demand for natural gas, which are not included in the estimated natural gas demand below as a conservative estimate. As such, the energy requirements and energy use of the Proposed Project related to natural gas during operation would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

Table IV.B-6
Proposed Project's Estimated Net Natural Gas Demand

Land Use	Size	Total Natural Gas Demand (kBTU/yr) [a]	Total Natural Gas Demand (cf/month) [b]
Existing Uses			
Regional Shopping Center	144,963 sf	263,833	21,546
Quality Restaurant	6,085 sf	1,426,020	116,458
Total Existing Natural Gas Demand:		**1,689,853**	138,004
Proposed Project			
Multi-Family Residential	331 du	3,050,810	249,150
Restaurant	7,500 sf	1,730,700	141,341
Retail (Supermarket)	63,082 sf	1,392,220	113,698
Commercial/Retail	13,412 sf	21,996	1,796
Parking Structure	996 spaces	0	0
Total Proposed Project Natural Gas Demand:		**6,195,726**	**505,985**
Less Existing Natural Gas Demand:		*-1,689,853*	*-138,004*
NET TOTAL Natural Gas Demand:		**4,505,873**	**367,981**

Notes: sf =square feet; du = dwelling unit
[a] *SCAQMD, CalEEMod Version 2016.3.2, See Appendix E, Greenhouse Gas Worksheets.*
[b] *1kBTU is equivalent to 0.98 cubic feet of natural gas.*
Source: Parker Environmental Consultants, 2020.

(iii) Transportation Energy Consumption

The Proposed Project would generate a demand on fossil fuels as a result of the vehicle trips traveling to and from the Development Site. The Proposed Project is estimated to generate approximately 17,828,809 vehicle miles traveled (VMT) per year, resulting in a projected consumption of 591,149 gallons of gasoline fuel and 170,611 gallons of diesel fuel per year. The existing uses on the Development Site are estimated to result in approximately 11,587,264 VMT per year, resulting in an estimated consumption of 468,072 gallons of gasoline fuel and 76,484 gallons of diesel fuel per year. Therefore, as shown in Table IV.B-7, below, assuming an average fuel efficiency of 26.75 mpg for gasoline and 10.74 mpg for diesel per EMFAC2017(v1.0.2) Emissions Inventory for the 2023 Project buildout year, it is conservatively estimated that the operation of the Proposed Project would generate an increased net demand for approximately 23,118 gallons of diesel and 158,436 gallons of gasoline per year over existing conditions.

Table IV.B-7
Proposed Project's Estimated Transportation Energy Consumption

	Annual VMTs (miles) [a]	Fuel Rate (mpg) [b]	Total Fuel Demand (gallons/year)
Diesel			
Existing Uses (to be demolished)	(695,236)	9.09	(76,484)
Proposed Project	1,069,729	10.74	99,602
		Net Diesel Consumption:	**23,118**
Gasoline			
Existing Uses (to be demolished)	(10,892,028)	23.27	(468,072)
Proposed Project	16,759,080	26.75	626,508
		Net Gasoline Consumption:	***158,436***

Notes: VMTs = vehicle miles traveled; mpg = miles per gallon
[a] *Appendix E, Greenhouse Gas Emissions: Total Annual VMTs from Operational Mobile; It is assumed that 91% of VMTs are associated with gasoline-powered vehicles and 7% of VMTs are associated with diesel-powered vehicles.*
[b] *Fuel efficiency estimates were based on EMFAC2017 (v1.0.2) Emissions Inventory data. See Appendix D, Energy Demand Worksheets.*
Parker Environmental Consultants, 2020.

As further discussed in Section IV.I, Transportation and Appendix H.1 of this Draft EIR, the Proposed Project's daily vehicle trip estimate is based on the LADOT's VMT Calculator's mixed-use methodology which reflects a reduction in the total daily trips based on several project defining factors including: the density of development, the relative numbers of residents and jobs, connectivity for walking and proximity to transit. Additionally, the average trip length used to calculate VMTs is based on the specific traffic analysis zone (TAZ) that reflects the attributes associated with the project's location and surrounding land uses (i.e., intersections per square mile, population and employment within one mile, employment within 30 minutes by transit, vehicles per household, and travel demand). These features are inherently accounted for in the VMT calculation and reflect a reduction in total VMT (and thus decrease in fuel consumption) as compared to a project that does not provide a complementary mix of land uses and is not located within a high quality transit area.

Additionally, as discussed in Section IV.I, Transportation, the Proposed Project would include the following TDM strategies: unbundled parking, promotions and marketing of alternative transportation options, and include bicycle parking per LAMC. The incorporation of these TDM strategies would reduce average weekday vehicle trips from 6,571 trips to 6,143 trips, and would result in an approximate reduction of 1,154,625 VMTs

per year as compared to the Proposed Project without mitigation. As related to the Proposed Project's transportation fuel use, this reduction in VMT would result in a reduction of 6,450 gallons of diesel fuel and 40,574 gallons of gasoline on an annual basis (see Appendix D, Energy Demand Calculations). Therefore, the Proposed Project's operational transportation fuel use would be further reduced with implementation of TDM strategies. As such, the energy requirements and energy use of the Proposed Project as related to petroleum-based fuels during operation would not cause wasteful, inefficient, and unnecessary use of energy, and impacts would be less than significant.

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

(a) Electricity

Construction of the Proposed Project would generate a demand for approximately 44,593 kWh in electricity use related to the temporary construction trailer and the treatment and conveyance of water for dust suppression activities during the excavation and grading phase. The electricity demands during construction would be typical of construction projects of this size and would not necessitate additional energy facilities or distribution infrastructure. Furthermore, the electricity demand during construction would be offset with the removal of the existing on-site uses which currently generate a demand for electricity.

With respect to operational electricity demand, correspondence with LADWP (See Appendix J.1) states that electric service is available to serve the Proposed Project and would be provided in accordance with LADWP's Rules Governing Water and Electric Service. The availability of electricity is dependent upon adequate generating capacity and adequate fuel supplies. The estimated power requirement for the Proposed Project would be part of the total load growth forecast for the City of Los Angeles and has been taken into account in the planned growth of the City's power system. The LADWP's load growth forecast incorporates construction activity and is built into the commercial floor space model. In planning sufficient future resources, the LADWP's Power Strategic Long-Term Resource Plan incorporates the estimated power requirement for the Proposed Project through the load forecast input and has planned sufficient resources to supply the electricity needs.[36] Based on LADWP's 2017 SLTRP, LADWP forecasts that its total energy sales in the 2023-2024 fiscal year (the Proposed Project's buildout year) would be 23,033 GWh of electricity. As such, the Proposed Project's estimated annual usage of 3,904,735 kWh/year would represent 0.017 percent of LADWP's projected sales for 2023. Furthermore, LADWP confirmed the Proposed Project's electricity demand can be served by the existing facilities in the Development Site area by specifically indicating "[t]he

[36] *LADWP, 2017 Power Strategic Long-Term Resource Plan, Page ES-25 – ES-26, December 31, 2017.*

estimated power requirement for this proposed project is part of the total load growth forecast for the City and has been taken into account in the planned growth of the power system."[37]

Therefore, the Proposed Project would not result in an increase in demand for electricity that exceeds available supply, and construction and operations of the Proposed Project would thus not affect local or regional electricity supplies or requirements for additional capacity and impacts would be less than significant.

(b) Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus there would be no demand generated by construction, resulting in a net decrease when compared to existing operations.

With respect to operations, SoCalGas manages the pipelines adjacent to the Development Site. If problems/deficiencies were to exist, appropriate actions (e.g. pressure betterments, natural gas supplies) would need to be initiated to solve problems. Correspondence with SoCalGas (dated March 20, 2019, and contained in Appendix J.4) states that SoCalGas has facilities in the Development Site area. The service would be in accordance with SoCalGas' policies and extension rules on file with the CPUC at the time contractual arrangements are made. Based on correspondence with SoCalGas and the existing infrastructure and projected net increase in demand for natural gas, it is anticipated that the SoCalGas would be able to meet the natural gas demands of the Proposed Project.[38] However, consistent with standard practice a detailed natural gas survey of equipment would be completed prior to construction to ensure that the current infrastructure can adequately sustain the demand for the Proposed Project.

Since the Proposed Project is located in an area already served by existing natural gas infrastructure, the Proposed Project would not require extensive infrastructure improvements to serve the Development Site. It is not anticipated that any new natural gas distribution pipelines or infrastructure facilities would be constructed or expanded as a result of the Proposed Project. The Proposed Project would, however, require local infrastructure improvements to connect to the existing infrastructure serving the Project area. "Hooking-up" disruptions along sidewalks or streets cannot be determined until the

[37] *Los Angeles Department of Water and Power, Will Serve letter from Charles Holloway, dated April 24, 2019. See Appendix J.1.*

[38] *See written correspondence from Southern California Gas Company, dated March 20, 2019, Re: Will Serve Letter Request for 6300 W. 3rd Street Los Angeles, CA 90036 provided in Appendix J.4 to this Draft EIR.*

actual natural gas demand is known. However, impacts associated with utility upgrades or additional connections would be temporary in nature.

As estimated above, the Proposed Project's net natural gas demands are estimated to be approximately 4,505,873 kBTU/yr or approximately 367,981 cf/month. As mentioned previously, the CEC estimates natural gas consumption within the SoCalGas' planning area will be approximately 2,480 million cf/day in 2023 (the Proposed Project's buildout year), or approximately 905,200 million cf/yr. The Proposed Project's increased demand for natural gas would represent 0.0005 percent of SoCalGas' forecasted natural gas consumption for 2023, and would also be well within the SoCalGas' existing natural gas storage capacity of 112.5 billion cubic feet as of 2018. Therefore, the Proposed Project would not adversely affect local and regional natural gas supplies or generate a demand for additional capacity during construction or operation. Impacts would be less than significant.

(c) Transportation Energy

In 2018, approximately 641,990 thousand barrels of crude oil (approximately 27 billion gallons) were supplied to California refineries.[39] Based on the CEC's Retail Fuel Outlet Annual Reporting Results, approximately 3.64 billion gallons of gasoline fuel and 0.25 billion gallons of diesel fuel was sold in Los Angeles County in 2018.[40]

In order to quantify the amount of diesel and gasoline fuel utilized for the Proposed Project's construction, the equipment usage, horsepower, load factors, and fuel rates from the construction phases and activities calculated in the CalEEMod worksheets for the Proposed Project were utilized to estimate the gallons of diesel and gasoline consumed (Appendix D, Energy Conservation Worksheets). Table IV.B-4, above, shows the estimated electricity and transportation energy consumed during the construction phase. As shown in Table IV.B-4, above, the Proposed Project would consume approximately 185,815 gallons of transportation fuel, including 132,033 gallons of diesel and 53,782 gallons of gasoline during construction. Due to the relatively short duration of the construction process, and the fact that the extent of fuel consumption is inherent to construction projects of this size and nature, the effects of the Proposed Project on local and regional energy supplies and on requirements for additional capacity would not be significant.

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[39] *California Energy Commission, Oil Supply Sources to California Refineries, website: http://www.energy.ca.gov/almanac/petroleum_data/statistics/crude_oil_receipts.html, accessed January 2020.*

[40] *Gasoline and Diesel Sales are provided in Appendix D to this Draft EIR. Source: California Energy Commission, California Retail Fuel Outlet Annual Reporting Results, website: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html, accessed January 2020.*

Assuming the same supply of crude oil is provided to California and Los Angeles County in 2023 (buildout year of Proposed Project), the Proposed Project's estimated net increase in operational demand for 23,118 gallons of diesel fuel and approximately 158,436 gallons of gasoline per year estimated, as shown in Table IV.B-7, would represent approximately 0.009 percent of estimated 0.25 billion gallons of diesel sales and approximately 0.004 percent of estimated 3.64 billion gallons of gasoline fuel sales for the Los Angeles County. This estimate is conservative since it is assumed that California's reliance on oil would be reduced since vehicles are transitioning to alternative fuels, such as electric-fueled vehicles. As such, the gasoline consumption associated with the Proposed Project's vehicle trips during both construction and operation would be a negligible amount of oil compared to the total amount of oil supplied to California and sold in the Los Angeles County, and impacts on regional and local supplies would be less than significant.

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

As discussed above, the electricity demand, natural gas consumption, and transportation energy consumption would be well within the available regional supplies and overall capacity of LADWP, SoCalGas, and California refineries, respectively. The Proposed Project's energy demand and consumption are negligible compared to available supplies during both construction and operation.

With regard to peak electricity load conditions, the 2017 Power SLTRP stated the LADWP power system experienced an all-time high peak of 6,432 MW on August 31, 2017.[41] LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2023-2024 (closest forecasted year to first project operational year), the base case peak demand for the power grid is 5,976 MW. Under peak conditions, the Proposed Project would consume approximately 6,512,372 kWh on an annual basis which, assuming 12 hours of active electricity demand per day, would be equivalent to approximately 1,487 kW (peak demand assuming 4,380 hours per year of active electricity demand). In comparison to the LADWP power grid base peak load of 5,976 MW for 2023-2024, based on the assumption above, the Proposed Project would represent approximately 0.025 percent of the LADWP base peak load conditions. Therefore, Proposed Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid.

With regard to peak day natural gas demand, the 2018 California Gas Report estimates for 2023 (Proposed Project first operational year), the extreme peak demand for the

[41] *LADWP, 2017 Retail Electric Sales and Demand Forecast, September 15, 2017.*

SoCalGas service area is 2,870 million cf/day. Under peak conditions, the Proposed Project would consume approximately 505,985 cf/month which would result in approximately 16,635 cf per day. As a conservative estimate for estimating peak demand, it is assumed the yearly natural gas usage only occurs during three months (90 days) of the year, during the winter months. This results in a daily peak natural gas usage of approximately 22,488 cf per day (conservatively assuming natural gas usage would only occur during the winter months). In comparison to the CEC extreme peak day demand of 2,870 million cf for 2023, based on the assumption above, the Proposed Project would represent 0.0008 percent of SoCalGas' forecasted extreme peak day demand. Therefore, Proposed Project natural gas demand during operational activities would have a negligible effect on peak demands of the natural gas supplies.

The electricity, and natural gas energy supplies would be sufficient to serve the Proposed Project's peak energy demand. Thus, the Proposed Project's electricity and natural gas demand during operational activities would have a negligible effect on demand during peak and base load periods of the power grid and on the natural gas supplies, and impacts would be less than significant.

Criteria 4) The degree to which the Project complies with existing energy standards.

(a) Construction

During construction, trucks and equipment operated on-site would comply with SCAQMD's anti-idling regulations and CARB's In-Use Off-Road Diesel-Fueled Fleets regulation. Compliance with the anti-idling and diesel-fueled fleet regulations would directly reduce the amount of diesel fuel consumed during the construction phase. Construction equipment would comply with energy efficiency requirements contained in the Federal Energy Independence and Security Act, which mandates standards for electrical motors and equipment. Therefore, the Proposed Project's construction activities would comply with existing energy standards, and impacts would be less than significant.

(b) Operation

The Proposed Project would be required to comply with 2019 Title 24 requirements, 2019 CalGreen requirements, and the L.A. Green Building Code. Therefore, the Proposed Project would comply with energy standards with respect to electricity and natural gas usage. With respect to transportation energy, it should be noted that the fuel use for vehicle transportation is conservatively based on an estimate of the Project's total annual VMTs and current fuel use estimated in mpg for gasoline and diesel. Future fuel use in the region would actually be lower as a result of CAFE standards and CARB's Advanced Clean Cars Program, which would further increase fuel economy and reduce demands

for transportation fuel. Therefore, the Proposed Project would comply with all existing construction and operational energy standards that are applicable to the Proposed Project, and impacts would be less than significant.

Criteria 5) The effects of the Project on energy resources.

(a) Electricity Resources

As previously described, LADWP's electricity generation is supplied from a variety of non-renewable and renewable sources, such as coal, natural gas, solar, geothermal, wind, and hydropower. Construction of the Proposed Project would generate a demand for approximately 44,593 kWh/year in electricity use related to the temporary construction trailer and treatment and conveyance of water for dust suppression activities during the excavation and grading phase. However, as the electricity demands during construction would be well below the existing electricity demands of the current uses on the Development Site (2,607,637 kWh/year), construction activities would not necessitate additional energy facilities or distribution infrastructure.

Based on LADWP's 2017 SLTRP, LADWP forecasts that its total energy sales in the 2023-2024 fiscal year (the Proposed Project's buildout year) would be 23,033 GWh of electricity. As such, the Proposed Project's estimated operational annual net increase in electricity demand (approximately 3,904,735 kWh/year) would represent approximately 0.017 percent of LADWP's projected sales for 2023-2024. In accordance with SB 350, LADWP is required to procure eligible renewable energy resources of 50 percent by 2030. LADWP has increased its renewable energy percentage from 3 percent in 2003 to 32 percent in 2018. LADWP's future strategy is pursuing higher renewables, energy efficiency, and future electrification of existing fossil fuel processes. It is expected that solar and wind will provide most of the new renewable electric generation in the years ahead. The Proposed Project would adhere to the required building code standards, such as 2019 Title 24 standards and 2019 L.A. Green Building Code, to ensure energy efficiency within the proposed structures. Compliance with energy standards are expected to result in more efficient use of electricity in future years. The LADWP's 2017 Power SLTRP identifies adequate resources (renewables, natural gas, coal) that are consistent with the RPS mandates to support future generation capacity. As such, the Proposed Project would not impact electricity resources during either construction or operation, and impacts would be less than significant. Due to the Development 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 Development Site due to the lack of sufficient wind in the Los Angeles basin.[42] Therefore, the Proposed Project would not affect electrical resources during operation or construction, and impacts would be less than significant.

(b) Natural Gas Resources

Sources of Southern California's natural gas are primarily obtained from western United States and Canada with a small portion from in-state. As stated in the 2018 California Gas Report, the CEC estimates average natural gas consumption within the SoCalGas' planning area will be approximately 2,480 million cf/day in 2023 (the Proposed Project's buildout year). Construction activities for the Proposed Project, including the construction of new buildings and facilities, would not involve the consumption of natural gas. The Proposed Project's net increase in natural gas demands during Project operation are estimated to be approximately 367,981 cf/month or approximately 12,098 cf/day. The net increase in natural gas demand generated by the Proposed Project would represent 0.0005 percent of the SoCalGas' estimated daily consumption of 2,480 million cf/day and, therefore, would be well within SoCalGas' forecasted natural gas supply for the year 2023. Compliance with energy standards are expected to result in more efficient use of natural gas in future years. Therefore, the Proposed Project would not affect natural gas resources during operation or construction, and impacts would be less than significant.

(c) Transportation Energy Resources

As mentioned previously, approximately 641,990 thousand barrels of crude oil (approximately 27 billion gallons) were supplied to California refineries in 2018.[43] At a local level, approximately 3.64 billion gallons of gasoline fuel and 0.25 billion gallons of diesel fuel was sold in the Los Angeles County in 2018.[44] Due to the relatively short duration of the construction process, and the fact that the extent of fuel consumption is inherent to construction projects of this size and nature, fuel consumption impacts would not be considered excessive or substantial with respect to regional fuel supplies. Further, compliance with regulatory compliance measures, such as restricting haul trucks to off-peak hours and not allowing engines to idle excessively when not in use (AQMD Rule 403), and meeting specified fuel and fuel additive requirements and emission standards (C.C.R. Title 13, Sec. 2485), would further serve to increase energy efficiency and reduce consumption of fossil fuels.

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[42] *California Energy Commission, Wind Resource Area & Wind Resources, website: www.energy.ca.gov/maps/renewable/wind.html, accessed January 2020.*

[43] *California Energy Commission, Oil Supply Sources to California Refineries, website: http://www.energy.ca.gov/almanac/petroleum_data/statistics/crude_oil_receipts.html, accessed January 2020.*

[44] *Gasoline and Diesel Sales are provided in Appendix D to this Draft EIR. Source: California Energy Commission, California Retail Fuel Outlet Annual Reporting Results, website accessed March 2020.*

Assuming the same supply of crude oil is provided to California, the Proposed Project's net increase in estimated annual consumption of approximately 23,118 gallons of diesel fuel and 158,436 gallons of gasoline per year would represent approximately 0.009 percent of the estimated 0.25 billion gallons of diesel sales and approximately 0.004 percent of the estimated 3.64 billion gallons of gasoline sales in the Los Angeles County region. This estimate is conservative since it is based on current fuel efficiency standards for diesel and gasoline engines. California's future reliance on transportation fuel would be further reduced in future years since vehicles are transitioning to alternative fuels, such as electric-fueled vehicles under CAFE standards and CARB's Advanced Clean Cars Program. As such, the Proposed Project's transportation energy consumption during construction and operation would not substantially affect California's petroleum based transportation fuel supplies or Los Angeles County's fuel sales, and impacts would be less than significant.

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

As discussed in the Section IV.I. Transportation, of this Draft EIR, the Proposed Project would promote trip reductions and alternative modes of transportation. The Development Site is located within a High-Quality Transit Area, as defined by the SCAG. The Proposed Project's mix of residential, commercial/retail, and restaurant uses, close proximity to transit (including Metro Rapid line 780; Metro lines 16, 17, 217, 218, and 316; and LADOT DASH Fairfax), and location near a broad mix of existing land uses would result in a net reduction in daily trips and VMT. The Proposed Project would incorporate TDM strategies to further reduce Household VMT per capita. The Proposed Project would include the following TDM strategies: unbundled parking, promotions and marketing of alternative transportation options, and include bicycle parking per LAMC requirements. The Proposed Project would provide 257 bicycle parking spaces to encourage residents, patrons, and employees to utilize alternate modes of transportation, such as walking, biking, and public transportation. The incorporation of TDM strategies, such as unbundled parking, promotions and marketing of alternative transportation options, and include bicycle parking per LAMC, would further reduce average weekday vehicle trips from 6,571 trips to 6,143 trips. As such, the Proposed Project would promote alternate modes of transportation and reduce its reliance on transportation energy and impacts would be less than significant.

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

As stated above, the Proposed Project would be required to comply with energy conservation standards pursuant to Title 24 of the California Code of Regulations, which

includes energy conservation in electricity usage and natural gas usage. The Proposed Project would also be required to comply with the L.A. Green Building Code. The L.A. Green Building Code, effective January 1, 2017, requires the use of numerous energy conservation measures, beyond those required by Title 24 of the California Code of Regulations. The Proposed Project would be designed to meet the minimum energy efficiency standards of the L.A. Green Building Code and will therefore demonstrate that it meets the City's standard of sustainability by meeting the intent of the criteria for certification at the U.S. Green Building Council's (USGBC) Leadership in Energy Efficiency and Design (LEED) "Certified" level or equivalent.

The Proposed Project would utilize efficient building technology initiatives and eco-friendly sustainability practices that exceed local, state, and national standards for green building practices. The building would include sustainable design to meet or exceed Title 24 Standards and L.A. Green Building Code requirements. The Proposed Project would be designed to exceed the 2019 Title 24 energy requirements by 20 percent, such as installing more energy-efficient electricity lighting/appliances and natural gas fixtures, as required by the L.A. Green Building Code. The development would incorporate eco-friendly building materials, systems, and features wherever feasible, including Energy Star appliances, water saving and low-flow fixtures, non-VOC paints and adhesives, drought tolerant planting, and high performance building envelopment. The building would also be designed to accommodate solar photovoltaic panels and on-site electric vehicle chargers.

Therefore, compliance with the L.A. Green Building Code and incorporation of the aforementioned green building technology would reduce the Proposed Project's energy consumption beyond City requirements, and impacts would be less than significant.

Criteria 8) Whether the Project conflicts with adopted energy conservation plans.

The Proposed Project would be required to comply with the 2019 CALGreen Code, 2019 Title 24 standards, and the L.A. Green Building Code standards. Compliance with state and local energy efficiency standards would ensure the Proposed Project meets all applicable energy conservation policies and regulations. The Proposed Project would be designed to exceed the Title 24 energy requirements by 20 percent, such as installing more energy-efficient electricity lighting/appliances and natural gas fixtures, as required by the L.A. Green Building Code. Furthermore, as discussed in more detail in Section IV.C, Greenhouse Gas Emissions, the Proposed Project would be consistent with applicable goals, measures, and policies of programs and plans that intend to reduce the reliance on fossil fuels, greenhouse gas emissions, energy demand, and promote overall public health. Such programs and plans include the 2017 Scoping Plan, the 2016-2040 RTP/SCS, the Sustainable City pLAn, and applicable SCAQMD Rules. Additionally, it

should be noted that the goals and policies of the recently adopted 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the Proposed Project would be consistent with the 2016–2040 RTP/SCS, the Proposed Project would also be consistent with the 2020–2045 RTP/SCS. As such, the Proposed Project would not conflict with any adopted energy conservation plans, and impacts would be less than significant.

(2) Conclusion to Threshold Question a)

As demonstrated in the analysis of the eight criteria discussed above, the Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Proposed Project's demands on electricity, natural gas, and transportation energy would not significantly affect local and regional supplies or capacity. The Proposed Project's energy usage during base and peak periods would be consistent with electricity and natural gas future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would be sufficient to meet the needs of Project-related construction and operational activities. Additionally, the Proposed Project would comply with all energy conservation standards applicable to the Proposed Project. In summary, the Proposed Project's energy demands would not significantly affect available energy supplies and would comply with existing energy efficiency standards. Therefore, the Proposed Project would not cause wasteful, inefficient, and unnecessary consumption of energy during the construction and operation, and impacts with respect to energy consumption would be less than significant.

(3) Mitigation Measures

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

(4) Level of Significance After Mitigation

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

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

As discussed under Criteria 8, above, the Proposed Project would be required to comply with the CALGreen Code, Title 24 standards, and the L.A. Green Building Code standards. Compliance with state and local energy efficiency standards would ensure the

Proposed Project meets all applicable energy conservation policies and regulations. The Proposed Project would be designed to meet the minimum energy efficiency standards of the L.A. Green Building Code and the City's standard of sustainability by meeting the intent of the criteria for certification at the USGBC LEED "Certified" level or equivalent. Furthermore, the Proposed Project would be designed to exceed the Title 24 energy requirements by 20 percent, through the installation of energy-efficient electricity lighting/appliances and natural gas fixtures, as required by the L.A. Green Building Code. Additionally, the proposed project would further reduce natural gas usage as the Proposed Project would prohibit the installation of hearths and/or fireplaces within any of the residential units (See PDF GHG-1 in Section IV.C, Greenhouse Gas Emissions). In addition, vehicle trips generated during Project operations would comply with CAFÉ fuel economy standards. During construction activities, the Project would be required to comply with CARB anti-idling regulations and the In-Use Off-Road Diesel Fleet regulations. As such, the Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

(1) Mitigation Measures

Project impacts related to energy efficiency conservation plans would be less than significant. Therefore, no mitigation measures would be required.

(2) Level of Significance After Mitigation

Impacts 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) Wasteful, Inefficient, and Unnecessary Use of Energy

(a) Electricity

Buildout of the Project, the 63 related projects identified in Section III, Environmental Setting, Table III-2, and additional growth forecasted to occur in the City would increase consumption during project construction and operation and, thus, cumulatively increase the need for energy supplies. Forty-one (41) of the 63 related projects are within the City of Los Angeles, and the remaining 21 related projects are within the City of West Hollywood. LADWP provides electricity service for the projects within the City of Los Angeles. The Proposed Project and related projects within the City of Los Angeles may cumulatively combine for electricity consumption. Southern California Edison provides electricity service for the projects within the City of West Hollywood. Since these related

projects are not within the same electricity service area as the Proposed Project, the Proposed Project and the related projects within the City of West Hollywood would not cumulatively combine on electricity consumption. The related projects within the City of West Hollywood would be required to comply with Southern California Edison requirements and provisions. Although future development would result in the irreversible use of renewable and non-renewable electricity resources during related project construction and operation which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with growth expectations for the LADWP's service area. Furthermore, in accordance with current building codes and construction standards, each of the related projects within the City of Los Angeles would be required to comply with the energy conservation standards established in Title 24 of the California Administrative Code and the L.A. Green Building Code (as applicable to City of Los Angeles related projects). Furthermore, as discussed above, the LADWP's 2017 SLTRP document serves as a comprehensive 20-year plan to supply reliable electricity to the City of Los Angeles in an environmentally responsible and cost effective manner. Based on the projections and strategies within the 2017 SLTRP, energy efficiency and solar savings are expected to increase in the future and significantly reduce electricity demands. Therefore, LADWP anticipates that it can meet the future demands of cumulative growth within its service area with implementation of regulatory and reliability initiatives and strategic initiatives. Compliance with Title 24 energy conservation standards, the L.A. Green Building Code, and other energy conservation programs on the local level will further reduce cumulative electricity demands.

Additionally, as discussed above, LADWP is required to procure at least 33 percent of its energy portfolio from renewable sources by 2020 and 50 percent by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources accounted for 32 percent of LADWP's overall energy mix in 2018. This represents the available off-site renewable sources of energy that could meet the Proposed Project's and related projects energy demand. Therefore, the Proposed Project and related projects would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. ***As such, the impact of the Project and related projects upon the wasteful, inefficient, and unnecessary use of electricity would not be cumulatively significant, and the Project's incremental effect would not be cumulatively considerable. Therefore, impacts would be less than significant.***

(b) Natural Gas

Southern California Gas Company (SoCalGas) provides natural gas services for the Proposed Project and 63 related projects. As such, cumulative discussion below includes the Proposed Project and all 63 related projects.

Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Proposed Project more energy-efficient, and would be consistent with regional and local growth expectations for SoCalGas' service area. All of the related projects would promote energy conservation in accordance with the policies identified in Title 24. Related projects located within the City of Los Angeles would also promote energy conservation in accordance with goals and policies in the City's Sustainable City pLAn/LA's Green New Deal and the L.A. Green Building Code. All of the related projects would be required to comply with the L.A. Green Building Code, which sets compliance measures to further promote energy conservation efforts. For related projects that are located outside of the City, they would be subject to the City of West Hollywood's Green Building Ordinance.[45] Implementation of regulatory compliance measures that would meet Title 24 Standards and the L.A. Green Building Code energy efficiency requirements would further reduce demand for natural gas. ***Therefore, the impact of the Proposed Project and related projects upon the wasteful, inefficient, and unnecessary use of natural gas would not be cumulatively significant, and the Proposed Project's incremental effect would not be cumulatively considerable. Therefore, impacts would be less than significant.***

(c) Transportation Energy

The Proposed Project and 63 related projects would cumulatively increase the demand for transportation energy. As discussed previously, the NHTSA and CARB have implemented several policies, rules, and regulations to improve vehicle efficiency, increase the use of alternative fuels, and decrease the reliance on fossil fuels. The future Project-related and related projects' vehicle trips are expected to comply with CAFE standards and CARB's Advanced Clean Cars Program, which would ultimately reduce non-renewable transportation fuel consumption. Additionally, the Proposed Project would include TDM strategies such as unbundled parking, promotions and marketing of alternative transportation options, and include bicycle parking per LAMC requirements, which would promote alternate modes of transportation and overall reduce reliance on transportation energy. Similarly, future related projects would be required to analyze impacts on transportation energy and implement strategies to reduce reliance on transportation energy. ***As such, the impact of the Proposed Project and future related projects upon the wasteful, inefficient, and unnecessary use of transportation energy would not be cumulatively significant, and the Proposed Project's incremental effect would not be cumulatively considerable. Therefore, impacts would be less than significant.***

[45] *City of West Hollywood, Green Building Ordinance, Ord. No. 07-762, adopted July 16, 2007.*

(2) Consistency with State or Local Plans

(a) Electricity

In accordance with current building codes and construction standards, each of the related projects would be required to comply with the energy conservation standards established in Title 24 of the California Administrative Code. Related Projects located within the City of Los Angeles would also comply with the standards in the L.A. Green Building Code. Compliance with Title 24 Standards, the L.A. Green Building Code, and other energy conservation programs on the local level will further reduce cumulative energy demands. ***Therefore, cumulative impacts with respect to consistency with state and local plans for renewable energy or energy efficiency as they relate to electricity demand would be less than significant.***

(b) Natural Gas

All of the related projects would promote energy conservation in accordance with the policies identified in Title 24. Related Projects located within the City of Los Angeles would also promote energy conservation consistent with the City's Sustainable City pLAn, and the L.A. Green Building Code. Related projects within the City of Los Angeles would be required to comply with the L.A. Green Building Code, which sets compliance measures to further promote energy conservation efforts. Compliance with regulatory compliance measures would meet Title 24 Standards and the L.A. Green Building Code energy efficiency requirements. ***Therefore, cumulative impacts with respect to consistency with state and local plans for renewable energy or energy efficiency as they relate to natural gas demand would be less than significant.***

(c) Transportation Energy

As discussed previously, the NHTSA and CARB have implemented several policies, rules, and regulations to improve vehicle efficiency, increase the use of alternative fuels, and decrease the reliance on fossil fuels. It is anticipated that the future demand for transportation fuel such as gasoline and diesel would be reduced as CAFE standards and CARB's Advanced Clean Cars Program, which would ultimately reduce non-renewable transportation fuel consumption, are implemented. Additionally, as previously stated, the Proposed Project would be consistent with applicable goals, measures, and policies of programs and plans that intend to reduce the reliance on fossil fuels, greenhouse gas emissions, energy demand, and promote overall public health. Such programs and plans include the 2017 Scoping Plan, the 2016-2040 RTP/SCS[46], the Sustainable City

[46] *As discussed in the Regulatory Setting subsection above, because the 2020–2045 RTP/SCS was adopted by SCAG subsequent to both circulation of the NOP and approval of the Transportation Assessment for the Project, the Draft EIR addresses the Project's consistency with the 2016–2040 RTP/SCS. However, as the goals and policies of the recently adopted 2020–2045 RTP/SCS are similar*

pLAn/LA's Green New Deal, and applicable SCAQMD Rules, as discussed in Section IV.C, Greenhouse Gas Emissions. Related projects would be required to address consistency and compliance with local plans and policies as they relate to energy conservation. Furthermore, the Development Site and a majority of the related projects are located within a High-Quality Transit Area, as defined by the SCAG. Therefore, the Proposed Project and related projects would promote trip reductions and alternative modes of transportation due to land use characteristics in the vicinity of the Development Site. ***Therefore, cumulative impacts to policies and plans with respect to transportation energy would be less than significant.***

(3) Mitigation Measures

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

(4) Level of Significance After Mitigation

Cumulative impacts 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.

to, and consistent with, those of the 2016–2040 RTP/SCS, the Proposed Project would also be consistent with the 2020–2045 RTP/SCS.