IV. Environmental Impact Analysis

E. Energy

1. Introduction

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

In accordance with the applicable Appendix G sections and utilizing guidance from Appendix F of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the Project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). Detailed energy calculations can be found in Appendix E of this Draft EIR. Information found herein, as well as other aspects of the Project's energy implications, are discussed in greater detail elsewhere in this Draft EIR, including in Chapter 2, *Project Description*, and Sections IV.G, *Greenhouse Gas Emissions*, and Section IV.O.1, *Utilities and Service Systems - Water Supply*.

2. Environmental Setting

a) Regulatory Framework

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

- Energy Independence and Security Act of 2007
- Corporate Average Fuel Economy (CAFE) Standards
- Federal Energy Policy and Conservation Act
- Senate Bill 1389
- Renewables Portfolio Standard

- California Building Standards Code
  - California Building Energy Efficiency Standards (Title 24, Part 6)
  - California Green Building Standards (Title 24, Part 11)
- California Assembly Bill 1493
- California Air Resources Board
  - Climate Chance Scoping Plan
  - Advanced Clean Car Program
  - Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
  - In-Use Heavy-Duty Diesel-Fueled Fleets Regulation
- SB 375 (Sustainable Communities Strategy)
- Regional Transportation Plan/Sustainable Communities Strategy
- Green New Deal
- Green Building Code
- City of Los Angeles Mobility Plan 2035

(1) Federal

(a) Energy Independence and Security Act of 2007

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

- Increasing the supply of alternative fuel sources by setting mandatory Renewable Fuel Standards (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the United States Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) actions described 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."[1]

(b) Corporate Average Fuel Economy Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards (49 CFR Parts 531 and 533) reduce energy consumption by increasing the fuel economy of cars and light trucks. The NHTSA and USEPA jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy. When these standards are raised, automakers respond by creating a more fuel-efficient fleet. In 2012, the NHTSA established final passenger car and light truck CAFE standards for model years 2017 through 2021, which the agency projects will require in model year 2021, on average, a combined fleet-wide fuel economy of 40.3 to 41.0 miles per gallons (mpg). Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by USEPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type.[2] USEPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.[3]

In March 2020, the USEPA and NHTSA issued the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule that would maintain the CAFE standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE standards for model year 2020 are 43.7 miles per gallon (mpg) for passenger cars and 31.3 mpg for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. However, consistent with President Biden's executive order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, USEPA and NHTSA are now evaluating whether and how to replace the SAFE Rule.[4]

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

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

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

4 United States District Court for the District Court of Columbia, Union of Concerned Scientists, et al., Petitioners v. National Highway Traffic Safety Administration, Respondent, USCA Case #19-1230, 2021.

(c) Federal Energy Policy and Conservation Act

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

(2) State

(a) Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code Section 25301[a]). The 2020 Integrated Energy Policy Report, the latest published report from CEC, provides the results of the CEC's assessments related to energy sector trends, building decarbonization and energy efficiency, zero-emission vehicles (ZEV), energy equity, climate change adaptation, electricity reliability in Southern California, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts.

(b) Renewables Portfolio Standard

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

The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement

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

targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.[6]

In March 2021, the CEC, CPUC, and CARB issued an SB 100 Joint Agency Report that assesses barriers and opportunities to implementing the 100 percent clean electricity policy.[7] The report's initial findings suggest that the goals of SB 100 are achievable, though opportunities remain to reduce overall system costs; however, the report also notes that the findings are intended to inform state planning and are not intended as a comprehensive nor prescriptive roadmap to 2045 and future work is needed on critical topics such as system reliability and land use and further address energy equity and workforce needs.[8] Refer to Section IV.G, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

(c) California Building Standards

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

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2019 Title 24 standards, which became effective on January 1, 2020.[9] The 2019 Title 24 standards continue to improve upon the 2016 Title 24 standards for new construction of, and additions and alterations to, residential and nonresidential buildings which include efficiency improvements to the residential standards for attics, walls, water heating, and lighting, and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2017 national standards.[10]

6 California Public Utilities Commission, RPS Program Overview, 2018.

7 California Energy Commission, California Public Utilities Commission, California Air Resources Board, 2021 SB 100 Joint Agency Report Achieving 100 Percent Clean Electricity in California: An Initial Assessment, CEC-200-2021-001, March 2021.

8 California Energy Commission, California Public Utilities Commission, California Air Resources Board, 2021 SB 100 Joint Agency Report Achieving 100 Percent Clean Electricity in California: An Initial Assessment, CEC-200-2021-001, March 2021.

9 California Energy Commission, 2019 Building Energy Efficiency Standards, 2019.

10 California Energy Commission, 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, 2018.

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

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

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

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO2) emissions, Assembly Bill (AB) 1493 (commonly referred to as CARB's Pavley regulations), enacted on July 22, 2002, requires CARB to set GHG emission standards for new passenger vehicles, light duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017-2025.[12],[13] In September 2019, the USEPA published the SAFE Vehicles Rule in the federal register (Federal Register, Vol. 84, No. 188, Friday, September 27, 2019, Rules and Regulations, 51310-51363) that maintains the vehicle mpg standards applicable in model year 2020 for model years 2021 through 2026. In November 2019, California and 23 other states and environmental groups filed a petition in the U.S. District Court in Washington, DC for the USEPA to reconsider the published rule. The Court has not yet ruled on these petitions.

As discussed in subsection (1) Federal, above, in March 2020, despite the pending petitions, the U.S. DOT and the U.S. EPA issued the SAFE Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks. Refer to Section IV.G, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

(e) California Air Resources Board

(i) Scoping Plan

In response to the passage of AB 32 and the identification of the Statewide 2030 GHG reduction target (i.e., 40 percent below Statewide 1990 level GHG emissions by 2030),

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

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

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

CARB adopted the 2017 Climate Change Scoping Plan in December 2017.[14] The 2017 Climate Change Scoping Plan identifies technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health. The 2017 Climate Change Scoping Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade program, which constrains and reduces emissions at covered sources.[15] The 2017 Climate Change Scoping Plan strategies have co-benefits of improving energy and transportation fuel efficiency. Refer to Section IV.G, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this plan.

(ii) Advanced Clean Car Program

The Advanced Clean Cars emissions-control program was approved by CARB in 2012 and is closely associated with the Pavley regulations.[16] The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the ZEV regulations to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025. In particular, implementation of the ZEV and PHEV regulations reduce transportation fuel consumption by increasing the number of vehicles that are partially or fully electric-powered. Effective November 26, 2019, the federal SAFE Vehicles Rule Part One: One National Program withdraws the California waiver for the GHG and ZEV programs under section 209 of the Clean Air Act, which revokes California's authority to implement the Advanced Clean Cars and ZEV mandates.

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

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling 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

14 California Air Resources Board, 2017 Scoping Plan, November 2017.

15 California Air Resources Board, 2017 Scoping Plan, November 2017, page 6.

16 California Air Resources Board, Clean Car Standards – Pavley, Assembly Bill 1493, https://ww2.arb.ca.gov/californias-greenhouse-gas-vehicle-emission-standards-under-assembly-bill-1493-2002-pavley, last reviewed January 11, 2017. Accessed January 31, 2022.

primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

(iv) In-Use Heavy-Duty Diesel-Fueled Fleets Regulation

Because off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls.

In 2007, CARB approved the "In-Use Off-Road Diesel Fueled Fleets Regulation" to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries (13 CCR Section 2449). 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 regulation is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from the use of more fuel-efficient engines.

(f) SB 375 (Sustainable Communities Strategy)

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan (since updated to 2017 Climate Change Scoping Plan) for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associate with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

(3) Regional

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

SB 375 requires each MPO to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. In general, the SCS outlines a development pattern for the

region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted on September 3, 2020, is the current RTP/SCS and is an update to the 2016-2040 RTP/SCS.

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

(4) Local

(a) Green New Deal

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives.[17] L.A's Green New Deal is the first four-year update to the City's first Sustainable City pLAn that was released in 2015 and therefore replaces and supersedes the Sustainable City pLAn.[18] It augments, expands, and elaborates in more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals.

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

- Reduce potable water use per capita by 22.5 percent by 2025; 25 percent by 2035; and maintain or reduce 2035 per capita water use through 2050.
- Reduce building energy use per square foot for all building types 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050 (from a baseline of 68 thousand British thermal units per square foot (mBTU/sqft) in 2015).

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

[18] City of Los Angeles, Sustainable City pLAn, 2015.

- All new buildings will be net zero carbon by 2030 and 100 percent of buildings will be net zero carbon by 2050.
- Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025; 39 percent by 2035; and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles in the city to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050.
- Increase landfill diversion rate to 90 percent by 2025; 95 percent by 2035 and 100 percent by 2050.
- Reduce municipal solid waste generation per capita by at least 15 percent by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 pounds (lbs.) of waste generated per capita per day in 2011).
- Eliminate organic waste going to landfill by 2028.
- Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.
- Ensure the proportion of Angelenos living within 1/2 mile of a park or open space is at least 65 percent by 2025; 75 percent by 2035; and 100 percent by 2050.

(b) Green Building Code

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

(c) City of Los Angeles Mobility Plan 2035

In August 2015, the City Council adopted Mobility Plan 2035 (Mobility Plan), which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the most recent amendment on September 7, 2016.[19] The Mobility Plan incorporates "complete streets" principles and lays the policy foundation for how the City's residents interact with their streets. The Mobility Plan includes five main goals that define the City's high-level mobility priorities:

(1) Safety First;

(2) World Class Infrastructure;

(3) Access for All Angelenos;

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

(5) Clean Environments and Healthy Communities.

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

b) Existing Conditions

(1) Electricity

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

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

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City, including the Project Site, serving approximately 4 million people

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

within a service area of approximately 465 square miles. Electrical service provided by LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Valley Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP has a net dependable generation capacity greater than 7,531 MW.[20] On August 31, 2017, LADWP's power system experienced a record instantaneous peak demand of 6,502 MW.[21] Approximately 34 percent of LADWP's 2019 electricity purchases were from renewable sources, which is similar to the 32 percent Statewide percentage of electricity purchases from renewable sources.[22] The annual electricity sale to customers for the 2018-2019 fiscal year was approximately 22,663 million kWh.[23]

Energy demand from the existing Project Site uses is considered in this analysis to determine the Project's net (Project minus existing) energy consumption. Based on California Emissions Estimator Model (CalEEMod),[24] which is a State-approved emissions model used for the Project's air quality and GHG emissions assessment, the Project Site's current annual electricity demand is approximately 805,828 kWh. Detailed calculations are provided in Appendix F of this Draft EIR.

(2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs but relies upon out-of-state imports for nearly 90 percent of its natural gas supply.[25] A majority of natural gas consumed in California is for

[20] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 17.

[21] Los Angeles Department of Water and Power, Facts & Figures, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=xk0dbq6vu_4&_afrLoop=9598324856637&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D9598324856637%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dfcfwtty0v_25, accessed December 5, 2020.

[22] Los Angeles Department of Water and Power, 2019 Power Content Label, October 2020.

[23] Los Angeles Department of Water and Power, 2017 Retail Electric Sales and Demand Forecast, page 14, September 2017.

[24] California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017, http://caleemod.com/, accessed December 2020.

[25] California Energy Commission, Supply and Demand of Natural Gas in California, https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california, accessed December 5, 2020.

electricity generation, along with the industrial, residential, and commercial sections.[26] Among energy commodities consumed in California, natural gas accounts for one-third of them.[27] Natural gas is measured in terms of cubic feet (cf).

Natural gas is provided to a majority of the City, including portions of the Project vicinity, by SoCalGas. SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.6 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[28]

SoCalGas receives gas supplies from several sedimentary basins in the western U.S. and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies.[29] The traditional, southwestern U.S. sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.[30] Gas supply available to SoCalGas from California sources averaged 97 million cubic feet (cf) per day in 2019 (the most recent year for which data are available).[31] Also, the annual natural gas sale to customers in 2019 was approximately 879,285 million cf.[32]

Energy demand from the existing Project Site uses is considered in this analysis to determine the Project's net (Project minus existing) energy consumption. Based on outputs from CalEEMod,[33] the Project Site's existing annual natural gas demand is approximately 9,682 cf. Detailed calculations are provided in Appendix F of this Draft EIR.

[26] California Energy Commission, Supply and Demand of Natural Gas in California, https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california, accessed December 5, 2020.

[27] California Energy Commission, California Natural Gas Industry, https://www.energy.ca.gov/almanac/naturalgas_data/, accessed December 5, 2020.

[28] SoCalGas, Company Profile, http://www.socalgas.com/about-us/company-info.shtml, accessed December 5, 2020.

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

[30] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.

[31] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 111.

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

[33] California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017, http://caleemod.com/, accessed December 5, 2020.

(3) Transportation Energy

According to the CEC, transportation accounted for about 41 percent of California's total energy consumption in 2017 based on a carbon dioxide equivalent basis.[34] In 2019, California consumed 15.4 billion gallons of gasoline and 3.6 billion gallons of diesel fuel.[35] Petroleum-based fuels currently account for more than 90 percent of California's transportation fuel use.[36] However, the State is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline and transportation fossil fuels in general will continue to decline over the next 10 years primarily due to improvements in fuel efficiency and increased electrification.[37] According to fuel sales data from the CEC, fuel consumption in Los Angeles County was approximately 3.56 billion gallons of gasoline and 0.56 billion gallons of diesel fuel in 2019.[38]

The existing Project Site operations include daily trips to and from the site and on-site landscaping equipment that consume gasoline and diesel fuels. Based on the existing VMT and emission factors taken from CARB's on-road vehicle emissions factor 2017 (EMFAC2017) model, the Project Site's annual demand for gasoline is approximately 86,535 gallons and for diesel fuel is approximately 8,319 gallons. Detailed calculations are provided in Appendix F of this Draft EIR.

3. Project Impacts

a) Thresholds of Significance

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

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

34 California Energy Commission, 2019 Integrated Energy Policy Report, page 4.

35 California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, https://www.energy.ca.gov/media/3874, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.

36 California Energy Commission, 2016-2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, May 2016.

37 California Energy Commission, 2019 Integrated Energy Policy Report, page 228.

38 California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, https://www.energy.ca.gov/media/3874, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.

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

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

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

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

b) Methodology

This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. Specific analysis methodologies are discussed below. Energy calculations are provided in Appendix F of this Draft EIR, and are based on the same assumptions as are used in Section IV.B, *Air Quality*, and Section IV.G, *Greenhouse Gas Emissions*, of this Draft EIR.

(1) Construction

Construction energy impacts were assessed based on the incremental change in energy compared to baseline conditions. Under CEQA, the baseline environmental setting for an EIR is generally established at or around the time that the Notice of Preparation (NOP) for the EIR is published. As discussed in Chapter II, *Project Description*, of this Draft EIR, existing on-site facilities include the 2,700-square-foot clubhouse with a 10-seat café, a 799-square-foot tennis shack, and 16 tennis courts with approximately 128 court lights that reach a height of 22 feet. A nine-hole golf course comprising approximately 426,000 square feet, a 25-stall driving range, and a putting green are also located on the Project Site. The Weddington Golf & Tennis property also includes 89 surface parking spaces. The original, on-site Weddington Golf & Tennis clubhouse, including its café, which are

located on the northeastern portion of the Project Site, would remain as part of the Project. An existing putting green to the northeast of the clubhouse, six existing golf ball-shaped light standards, and the low brick retaining wall along the northeast edge of the property would also remain. Since the Weddington Golf & Tennis clubhouse and putting green would continue to operate as under existing conditions, this analysis assumes these uses would generate the same operational energy demands with or without the Project and were therefore not included in existing, construction or operational energy calculations. The other existing uses would be demolished and removed to allow for development of the Project. Off-site from the Project Site, the Project would also provide improvements to the segment of Valleyheart Drive south of Los Angeles Fire Department (LAFD) Fire Station 78 and to portions of the Zev Greenway adjacent to the Project Site and would install an Americans with Disabilities Act (ADA)-compliant accessible pedestrian ramp leading to the Zev Greenway at Coldwater Canyon Avenue (Coldwater Canyon Avenue Riverwalk Path Ramp). Construction equipment and energy demand of these off-site components are included in the overall Project construction equipment data and schedule.

Project construction is estimated to start in 2022, but may commence at a later date. If, for various site planning, financial, or other reasons, the onset of construction is delayed to a later date than assumed in the modeling analysis, construction impacts would be similar to or less than those analyzed, because a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is because State regulations require construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time. Construction energy consumption would result primarily from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the Project Site. Construction activities can vary substantially from day to day, depending on the specific type of construction activity and the number of workers and vendors traveling to the Project Site. This analysis considers these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources. This analysis is based on estimated maximum construction activities, meaning that for each phase of construction it was assumed that all of the vehicles and equipment that could be used for that phase are in simultaneous use for all day and every day of the phase.

(a) Electricity

Construction electricity was estimated for a temporary construction office, for construction equipment that would use electricity as an alternative to diesel fuel, and for water usage from dust control. The construction office was assumed to be a 1,000 square foot trailer and was modeled using CalEEMod.[39] CalEEMod Version 2016.3.2 was the version available at the time the modeling analysis commenced. While CalEEMod Version 2020.4.0 was released after the modeling analysis was commenced,

[39] California Air Pollution Control Officers Association, California Emissions Estimator Model, 2017, http://caleemod.com/, accessed December 5, 2020.

compared to Version 2016.3.2, the default electricity factors in Version 2020.4.0 are slightly lower because it accounts for compliance with the 2019 Title 24 standards instead of the 2016 Title 24 standards. Therefore, the analysis is slightly more conservative and does not underreport impacts. In addition, electricity from water conveyance for dust control was also calculated based on the estimated exposed area and water needs to cover the area during construction activity. Default CalEEMod water electricity intensity factors were used to convert the volume of water needed to electricity demand from water conveyance.

(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 is not expected to be consumed in large quantity during Project construction. Therefore, natural gas associated with construction activities was not calculated.[40]

(c) Transportation Fuels

Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix C of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour from CARB's off-road vehicle (OFFROAD) model. Fuel consumption from construction on-road worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the emissions modeling worksheets and CalEEMod construction output files. Total VMT for these on-road vehicles were then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC2017 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. CalEEMod assumed trip lengths were used for worker commutes while vendor, management visits, concrete, and haul truck trips were taken from emissions modeling worksheets that used EMFAC2017 emission factors. CalEEMod Version 2016.3.2 was the version available at the time the modeling analysis commenced. While CalEEMod Version 2020.4.0 was released after the modeling analysis was commenced, compared to Version 2016.3.2, the default vehicle trips lengths are the same in Version 2020.4.0. Therefore, there is no difference in trip lengths between the two versions and this analysis does not underreport impacts.

Consistent with CalEEMod, construction worker trips were assumed to include a mix of light duty gasoline automobiles and light duty gasoline trucks. Construction vendor trucks were assumed to be a mix of medium-heavy-duty and heavy-duty diesel trucks and

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

concrete and haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix F of this Draft EIR for detailed energy calculations.

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

The construction equipment and haul trucks would likely be diesel-fueled, while the construction worker commute vehicles would primarily be gasoline-fueled. For the purposes of this assessment, it is conservatively assumed that all heavy-duty construction equipment and haul trucks would be diesel-fueled. The estimated fuel economy for heavy-duty construction equipment is based on fuel consumption factors from the CARB OFFROAD emissions model, which is a State-approved model for estimating emissions from off-road heavy-duty equipment. The estimated fuel economy for haul trucks and worker commute vehicles is based on fuel consumption factors from the CARB EMFAC emissions model, which is a State-approved model for estimating emissions on-road vehicles and trucks. Both OFFROAD and EMFAC are incorporated into CalEEMod. However, fuel consumption for worker, vendor, and concrete/haul trucks were calculated outside of CalEEMod using emission factors from EMFAC2017 to provide a more detailed and accurate account of truck fuel consumption.

(2) Operation

Operation of the Project would require energy in the form of electricity and natural gas for building space and water heating, cooling, cooking, lighting, water demand and wastewater treatment, consumer electronics, and other energy needs, and transportation fuels, primarily gasoline, for on-site landscaping equipment and vehicles traveling to and from the Project Site. Operational energy impacts were assessed based on the increase in energy demand compared to existing conditions. Within the CalEEMod software, building electricity and natural gas usage rates were adjusted to account for prior Title 24 Building Energy Efficiency Standards for the existing uses.[41] As stated above, the net change in operational energy demand is based on the difference between the existing Project Site energy demand and the energy demand of the Project at full buildout.

[41] California Air Resources Board, CalEEMod User's Guide, Appendix E, Section 5, September 2016. Factors for the prior Title 24 standard are extrapolated based on the technical source documentation.

For consistency with the emissions modeling provided in Section IV.B, *Air Quality* and IV.G, *Greenhouse Gas Emissions*, the Project's energy use was calculated assuming buildout in 2025.

(a) Electricity

The Project's estimated electricity demand was analyzed relative to LADWP's existing and planned energy supplies in 2025 (i.e., the Project buildout year)[42] to determine if the utility would be able to meet the Project's energy demands. Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) from Project operation was calculated using demand factors provided in CalEEMod based on the 2019 Title 24 standards, which went into effect on January 1, 2020. CalEEMod Version 2016.3.2 was the version available at the time the modeling analysis commenced. While CalEEMod Version 2020.4.0 was released after the modeling analysis was commenced, compared to Version 2016.3.2, the default electricity factors in Version 2020.4.0 are slightly lower because it accounts for compliance with the 2019 Title 24 standards instead of the 2016 Title 24 standards. However, as mentioned above, the default energy demand factors were updated based on the 2019 Title 24 standards. Therefore, the modeling analysis already accounts for the 2019 Title 24 standards and remodeling using Version 2020.4.0 is not required to provide an informative analysis for decision makers. Energy usage from water demand (e.g., electricity used to supply, convey, treat, and distribute) was estimated based on new buildings and facilities compared to the existing uses. The assessment also includes a discussion of the Project's compliance with relevant energy-related regulations and its land use transportation characteristics that would minimize the amount of energy usage during operations. These features and characteristics are also discussed in Chapter II, *Project Description*, Section IV.B, *Air Quality*, Section IV.G, *Greenhouse Gas Emissions*, and Section IV.J, *Land Use and Planning*, of this Draft EIR.

(b) Natural Gas

The Project's estimated natural gas demand was analyzed relative to SoCalGas' existing and planned energy supplies in 2025 (i.e., the Project buildout year)[43] to determine if the utility would be able to meet the Project's energy demands. Furthermore, natural gas demand generated by the existing site was calculated using demand factors provided in CalEEMod and subtracted from the Project's natural gas demand to obtain the net annual natural gas demand. Natural gas demand for the Project would be generated mainly by building heating and appliances. As noted, above, the default energy demand factors n CalEEMod 2016.3.2 were updated based on the 2019 Title 24 standards. Therefore, the modeling analysis already accounts for the 2019

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

[43] California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 145.

Title 24 standards and remodeling using Version 2020.4.0 is not required to provide an informative analysis for decision makers.

(c) Transportation Fuels

Energy for transportation from Project spectators, visitors, students, and employees traveling to and from the Project Site is estimated based on the predicted number of trips to and from the Project Site, based on VMT from the Transportation Assessment (TA) prepared by Fehr & Peers for the Project.[44] The existing site and Project annual VMT are based on the sum of the estimated daily VMT (365 days out of a year). Daily VMT for the existing site and school athletic and recreational facility component of the Project are provided in the TA prepared for the Project. While the community use component of the Project, which would be classified as a community-serving recreational facility, would be exempt from VMT analysis per LADOT requirements in accordance with LADOT's *Transportation Assessment Guidelines*,[45] the transportation fuel demand associated with VMT from the community use component of the Project was accounted for in the Project's operational transportation fuel demand for the purposes of this energy analysis, including from typical daily community use and occasional weekend community Special Events. Additionally, in order to estimate annual transportation fuel demand, VMT from Harvard-Westlake Special Events were accounted for in the Project's operational transportation fuel demand for the purposes of this energy analysis. Refer to VMT data in Appendix C and Appendix M of this Draft EIR and energy calculations in Appendix F of this Draft EIR.

c) Project Design Features

The Project would include Project Design Features designed to improve energy efficiency as discussed further below and as set forth in Sections IV.B, *Air Quality*; and Section IV.G, *Greenhouse Gas Emissions*. In particular, as per Project Design Feature GHG-PDF-1, the Project would include solar voltaic panels on the roof of the gymnasium that would generate on-site renewable electricity of approximately 339,000 kWh per year and reduce the amount of electricity demand from City utilities.

44 Fehr & Peers, Transportation Assessment – Harvard-Westlake River Park Project for Assessor Parcel Numbers 2375-018-020 and portion of APN 2375-018-903 Los Angeles River Parcel 276,4141 Whitsett Avenue, Studio City, CA 91604, April 2021. The Transportation Assessment is provided in Appendix M of this Draft EIR.

45 *Los Angeles Department of Transportation*, Transportation Assessment Guidelines, July 2020.

d) Analysis of Project Impacts

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

(1) Impact Analysis

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

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

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

(i) Construction

During Project construction, energy would be consumed in the form of electricity on a limited basis for powering lights, electronic equipment, and for water conveyance for dust control. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction workers traveling to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

Table IV.E-1, *Summary of Energy Use During Project Construction*, provides a summary of the annual average electricity, gasoline fuel, and diesel fuel estimated to be consumed during Project construction. Each of these is discussed and analyzed in greater detail in the sections below. As specified earlier, these figures represent a highly conservative estimate in that it assumes the maximum volume of on-road and off-road construction equipment usage every day for each phase of construction.

TABLE IV.E-1
SUMMARY OF ENERGY USE DURING PROJECT CONSTRUCTION [a]

Energy Type	Total Quantity	Annual Average Quantity During Construction
Electricity		
Construction Office	32,635 kWh	12,990 kWh
Electricity from Water (Dust Control)	379,497 kWh	151,054 kWh
Total Electricity	**412,132 kWh**	**164,044 kWh**
Gasoline		
On-Road Construction Equipment	169,155 gallons	67,330 gallons
Off-Road Construction Equipment	0 gallons	0 gallons
Total Gasoline	**169,155 gallons**	**67,330 gallons**
Diesel		
On-Road Construction Equipment	367,782 gallons	146,391 gallons
Off-Road Construction Equipment	751,499 gallons	299,124 gallons
Total Diesel	**1,119,281**	**445,515 gallons**

kWh = kilowatt-hours

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

SOURCE: ESA, 2021.

(a) Electricity

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

As shown in Table IV.E-1, annual average construction electricity usage would be approximately 164,044 kWh and would be within the supply and infrastructure capabilities of LADWP (forecasted to be 26,748 GWh net energy load in the 2025-2026 fiscal year).[46,47] The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represent a small fraction of the Project's net annual operational electricity. When not

[46] Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

[47] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.

in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. Furthermore, the electricity used for off-road light construction equipment would have the co-benefit of reducing construction-related air pollutant and GHG emissions from more traditional construction-related energy in the form of diesel fuel. **Therefore, impacts from construction electrical demand would be less than significant and would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(b) Natural Gas

As stated above, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no expected demand generated by construction of the Project. **Therefore, the Project would result in no impacts from construction natural gas demand and would not result in the wasteful, inefficient, and unnecessary consumption of energy.**

(c) Transportation Energy

Table IV.E-1 reports the estimated amount of petroleum-based transportation energy that is expected to be consumed during Project construction. Energy calculations are provided in Appendix F of this Draft EIR. During Project construction, on- and off-road vehicles would consume an estimated annual average of approximately 67,330 gallons of gasoline and approximately 445,515 gallons of diesel. Project construction activities would last for approximately 30 months. For comparison purposes only, and not for the purpose of determining significance, the fuel usage during Project construction would represent approximately 0.002 percent of the 2019 annual on-road gasoline-related energy consumption of 3,559,000,000 gallons and 0.079 percent of the 2019 annual diesel fuel-related energy consumption of 563,265,306 gallons in Los Angeles County,[48] as shown in Appendix F of this Draft EIR.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[49]

Construction of the Project would utilize fuel-efficient equipment consistent with State and federal regulations, such as fuel efficiency regulations in accordance with the CARB Pavley Phase II standards, the anti-idling regulation in accordance with Section 2485 in 13 CCR, and fuel requirements in accordance with 17 CCR Section 93115. The Project would benefit from fuel and automotive manufacturers' compliance with CAFE

[48] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, https://www.energy.ca.gov/media/3874, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.

[49] BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html, accessed December 5, 2020.

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

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

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

(ii) Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, on-road mobile sources (i.e., transportation fuel), area sources (i.e., landscape maintenance equipment and natural gas heating), energy (i.e., electricity, natural gas), water conveyance and wastewater treatment, and solid waste. Usage of these energy sources was calculated for the Project buildout year (2025). **Table IV.E-2**, *Summary of Annual Net New Energy Use During Project Operation*, summarizes the Project's annual net new operational energy demand for electricity, natural gas, and gasoline and diesel transportation fuels.

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

Energy Type	Annual Quantity [b]
Electricity	
Existing Site	(805,828 kWh)
Proposed Project	
Building Energy	2,495,770 kWh
Water Conveyance	188,839 kWh
Pole and LED Lighting	185,994 kWh
EV Charging	85,440 kWh
Solar Photovoltaic Array	(339,000) kWh
Project Subtotal	2,617,043 kWh
Total Net Electricity	**1,811,215 kWh**
Natural Gas	
Existing Site	(9,682 cf)
Proposed Project	
Building Energy	1,673,041 cf
Mobile Sources	151 cf
Project Subtotal	1,673,192 cf
Total Net Natural Gas	**1,663,510 cf**
Transportation	
Existing Site	
Gasoline	(86,535 gallons)
Diesel	(8,319 gallons)
Proposed Project	
Gasoline	132,955 gallons
Diesel	14,756 gallons
Total Net Transportation – Gasoline	**46,419 gallons**
Total Net Transportation – Diesel	**6,437 gallons**

kWh = kilowatt-hours

cf = cubic feet

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

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

[c] Negative values are denoted using parentheses.

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

SOURCE: ESA, 2021.

(a) Electricity

With compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, at buildout, the Project would result in a projected net increase in the on-site annual demand for electricity totaling 1,811,215 kWh for the Project, as shown in Table IV.E-2. The Project would include energy saving measures, including natural light to be harvested for the main spaces in the gymnasium building using large expanses of glass and skylights; daylighting systems to coordinate the levels of artificial lighting; heating, ventilation, and air conditioning (HVAC) systems that would be sized and designed in compliance with the CALGreen Code to maximize energy efficiency caused by heat loss and heat gain; high efficiency, low-e insulated glass units to be used for the gymnasium building envelope; glazing to be protected from direct sunlight with deep overhangs and window screening to reduce glare and solar radiation and heat gain; and new and existing tree canopies to be utilized to protect building walls from sun exposure and provide shade for the ground area.[50] These measures were generally accounted for based on compliance with 2019 Title 24 standards. In addition to compliance with CALGreen, the Project also incorporates Project Design Feature GHG-PDF-1 (Solar Voltaic System) as described in Section IV.G, *Greenhouse Gas Emissions*, of this Draft EIR. Project Design Feature GHG-PDF-1 was quantitatively accounted for in Table IV.E-2.

Further, it is important to note that the total net Project energy demand in Table IV.E-2 does not reflect the fact that Project operational-related energy would likely be lower as the Project would provide sustainability features that would reduce the Project's outdoor water demand as described in Section IV.O.1, *Utilities and Service Systems –Water Supply and Infrastructure.* These measures include the 1 million-gallon stormwater capture and reuse system that is expected to provide a minimum of one-third of the Project's total annual irrigation demand; stormwater collection and treatment to collect rainwater and other urban runoff not only at the corner of Whitsett Avenue and Valley Spring Lane, but throughout the Project Site and proposed building roofs; rainwater from parking areas to drain to the landscape areas for storage; replacing the existing uses with new athletic and recreational facilities, including athletic fields utilizing artificial grass as a sustainable alternative to turf grass and reduction in water demand and avoid the use of pesticides; and maintaining 41 percent of the Project Site as pervious areas to allow water to reach below the top surface condition and be reused. The stormwater capture and reuse system would save electricity by collecting local water and reducing irrigation demand from off-site water sources that have higher energy intensity. Overall, the stormwater capture and reuse system would reduce irrigation demand from off-site sources by at least 6.7 acre-feet per year. These measures were conservatively not accounted for since a specific outdoor water reduction value could not conclusively be calculated.

In addition, LADWP was required to procure at least 33 percent of its energy portfolio from renewable sources by 2020 (LADWP has met this requirement as discussed below).

[50] Low-e insulated glass refers to low emissivity glass which minimize the amount of ultra-violet and infrared light that can pass through, thereby improving the temperature insulating properties of the glass.

With the passage of SB 100 in September 2018, LADWP will be required to update its long-term plans to demonstrate compliance including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030, and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. LADWP's current sources include biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind sources. These sources accounted for 34 percent of LADWP's overall energy mix in 2019, the most recent year for which data are available, and represent the available off-site renewable sources of energy that would meet the Project's energy demand.[51]

LADWP generates its load forecast to account for regional economic and population growth based on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, plug-in electric vehicle (PEV) projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.[52] In addition, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would, therefore, account for the Project's electricity demand.[53]

Based on LADWP's collected data in its 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its net energy for load in the 2025-2026 fiscal year (the Project's buildout year) will be 26,748 GWh of electricity.[54,55] As such, the Project-related net increase in annual electricity consumption of 1,811,215 kWh for the Project would represent 0.007 percent of LADWP's projected sales in 2025 and would be within LADWP's projected electricity supplies.

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

51 Los Angeles Department of Water and Power, 2019 Power Content Label, October 2020.

52 Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 70.

53 Los Angeles Department of Water and Power, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 67.

54 Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

55 Los Angeles Department of Water and Power P, 2017 Final Power Strategic Long-Term Resource Plan, December 2017, page 14.

(b) Natural Gas

The Project would increase the demand for natural gas resources. With compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, at buildout, the Project is projected to generate a net increase in the on-site annual demand for natural gas totaling 1,663,510 cf, as shown in Table IV.E-2.

SoCalGas accounts for anticipated regional demand based on various factors, including growth in employment by economic sector, growth in housing and population, and increasingly demanding State goals for reducing GHG emissions. SoCalGas accounts for an increase in employment and housing between 2018 to 2035. Furthermore, the 2020 California Gas Report estimates that natural gas supplies within SoCalGas' planning area will be 854,830 million cf in 2025 (the Project's buildout year).[56] As stated above, the Project's annual net increase in demand for natural gas is estimated to be 1,663,510 cf. The Project would account for 0.0002 percent of the 2025 forecasted annual consumption in SoCalGas' planning area and would fall within SoCalGas' projected consumption for the area and would be consistent with SoCalGas' anticipated regional demand from population or economic growth.

As would be the case with electricity, the Project would comply with the applicable provisions of Title 24 and the CALGreen Code in effect at the time of building permit issuance to minimize natural gas demand. As such, the Project would minimize energy demand. **Therefore, with the incorporation of these measures and features, operation of the Project would not result in the wasteful, inefficient, or unnecessary consumption of natural gas.**

(c) Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. A majority of the vehicle fleet that would be used by Project spectators, visitors, students and employees would consist of light-duty automobiles and light-duty trucks, which are subject to fuel efficiency standards. Annual trips for the Project were estimated using trip rates provided in the Project's TA included in Appendix M of this Draft EIR.[57]

As shown in Table IV.E-2, the Project's estimated annual net increase in petroleum-based fuel usage would be 46,419 gallons of gasoline and 6,437 gallons of diesel for the Project. Based on the California Energy Commission's *California Annual Retail Fuel Outlet Report*, Los Angeles County consumed 3,559,000,000 gallons of gasoline and

56 California Gas and Electric Utilities, 2020 California Gas Report, 2018, page 145.

57 Fehr & Peers, Transportation Assessment – Harvard-Westlake River Park Project for Assessor Parcel Numbers 2375-018-020 and portion of APN 2375-018-903 Los Angeles River Parcel 276,4141 Whitsett Avenue, Studio City, CA 91604, April 2021. The Transportation Assessment is provided in Appendix M of this Draft EIR.

563,265,306 gallons of diesel fuel in 2019.[58] The Project would account for 0.001 percent of County gasoline consumption and 0.001 percent of County diesel consumption based on the available County fuel sales data for the year 2019.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[59] The Project would benefit from fuel and automotive manufacturers' compliance with CAFE standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also indirectly benefit from Pavley Standards, which are designed to reduce vehicle GHG emissions by mandating increasingly stringent emissions standards on new vehicles but would also result in fuel savings from more efficient engines in addition to compliance with CAFE standards.

The Project would support Statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles for the reasons provided below. As discussed in detail in Section IV.G, *Greenhouse Gas Emissions*, the Project would not conflict with the 2020-2045 RTP/SCS goals and benefits intended to improve mobility and access to diverse destinations, provide better "placemaking," provide more transportation choices, and reduce vehicular demand and associated emissions. The Project would support these strategies by creating a school and community serving recreational development comprising recreational uses (including a clubhouse with café) that offer employment and other community-serving opportunities. The Project supports the development of a balanced mixed of uses by co-locating complementary recreational land uses on an infill Project Site that is in close proximity to existing off-site commercial and residential uses, being located within a quarter-mile of off-site commercial and residential uses, and located within an identified HQTA in a highly walkable area well-served by public transportation (refer to the Air Quality and Greenhouse Gas Technical Appendix for the Project, which is provided in Appendix C of this Draft EIR, for additional information regarding the 2020-2045 RTP/SCS). The Project would concentrate recreational and athletic facility uses within an HQTA in an urban infill location in proximity to multiple public transit stops. The primary pedestrian/bicycle entrance to the Project Site would be provided off Whitsett Avenue near the northern vehicle entrance driveway. An additional pedestrian entrance gate would be located along Whitsett Avenue at the southern Project Site boundary, just north of LAFD Fire Station 78. Six additional exterior pedestrian entrance gates would be located along the Project Site perimeter. These include a pedestrian entry gate located along Valley Spring Lane near the corner of Whitsett Avenue; three additional pedestrian entry gates on Valley Spring

[58] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, 2010-2020, https://www.energy.ca.gov/media/3874, accessed January 28, 2022. Diesel is adjusted to account for retail (49 percent) and non-retail (51 percent) diesel sales.

[59] BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html, accessed December 5, 2020.

Lane opposite Teesdale, Beeman, and Babcock Avenues, respectively; one exterior pedestrian entrance gate at Bellaire Avenue and Valleyheart Drive; and one exterior pedestrian entrance gate to the Project Site from the Zev Greenway. In total, there would be eight pedestrian entry gates along the perimeter of the Project Site that would provide access to the three-quarter mile path and 5.4 acres of landscaped areas. However, access to the interior of the Project Site and its recreational facilities would only be via the primary pedestrian entrance on Whitsett Avenue, south of the clubhouse. The pedestrian entry gates that provide public access would support active transportation options and transit access. By locating the Project's proposed school athletic and recreational land uses within an area that has existing high-quality public transit (with access to existing regional bus and rail service), employment opportunities, restaurants and entertainment, all within walking distance, and by including features that support and encourage pedestrian activity and other non-vehicular transportation and increased transit use in the Studio City neighborhood of the Los Angeles area, the Project would reduce vehicle trips and VMT. Additionally, the Project design would provide for the installation of the conduit and panel capacity to accommodate EV charging stations for a minimum of 10 percent of the parking spaces pursuant to the CALGreen Code and LAMC. Lastly, the Project would utilize a shuttle system between the School's Upper Campus and the Project Site whenever there are School activities underway at the Project Site, in order to encourage efficient transportation and reduce VMT associated with the Project.

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

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

(i) Construction

As discussed above, electricity would be consumed during Project construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. While temporary power poles would be installed to provide electricity during Project construction, the existing off-site infrastructure would not have to be expanded or newly developed to provide electrical service to the Project Site during construction or demolition. Electricity demand during Project construction would be 9.7 percent of the Project's net annual operational electricity consumption, which would be within the supply and infrastructure capabilities of LADWP and, thus, would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new facilities or expansion of existing facilities. 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. The Project would involve installation of new natural gas connections to serve the Project Site buildings. Since the Project Site is located in an area already served by existing natural gas infrastructure, it is anticipated that the Project would not require extensive off-site infrastructure improvements to serve the Project Site. As stated above, transportation fuel usage during Project construction activities would represent 0.002 percent of gasoline usage and 0.08 percent of diesel usage within Los Angeles County, respectively. Construction transportation energy would be provided by existing retail service stations and from existing mobile fuel services that are typically needed to deliver fuel to a construction site to refuel the off-road construction equipment at the Project Site, and, as such, no new facilities would be required. **As energy consumption during construction would not be substantial, would be temporary and short-term, and as energy supplies of the existing purveyors are sufficient to serve the project in addition to existing commitments, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.**

(ii) Operation

(a) Electricity

Based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its net energy for load in the 2025-2026 fiscal year (the Project's buildout year) will be 26,748 GWh of electricity.[60,61] The Project-related net increase in annual electricity consumption of 1,811,215 kWh/year would represent 0.007 percent of LADWP's projected sales for the 2025-2026 fiscal year and would be consistent with LADWP's anticipated regional demand from population or economic growth. During peak conditions, the Project would represent 0.007 percent of the LADWP estimated peak load. Further, LADWP has issued a will-serve letter confirming that the Project is part of the total load growth forecast and has been taken into account in the planned growth of the City's power system.[62] Based on these factors, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to serve the Project's electricity demand, and, thus, the Project would not require additional infrastructure (i.e., a substation) beyond the aforementioned proposed utilities installed on-site during construction.

(b) Natural Gas

As stated above, the Project's estimated annual net increase in demand for natural gas would be 1,663,510 cf. Based on the 2020 California Gas Report, the California Energy and Electric Utilities estimates that natural gas consumption within SoCalGas' planning

60 Los Angeles Department of Water and Power defines its future electricity supplies in terms of sales that will be realized at the meter.

61 Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.

62 Los Angeles Department of Water and Power, Harvard-Westlake River Park Will-Serve Letter, January 7, 2021. Included in Appendix F of this Draft EIR.

area will be 854,830 million cf in 2025 (the Project's buildout year).[63] This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. The Project would account for 0.0002 percent of the 2025 forecasted consumption in SoCalGas' planning area and would fall within SoCalGas' projected consumption and supplies for the area. SoCalGas expects overall natural gas demand to decline through 2035, even accounting for population and economic growth, with efficiency improvements and the State's transition away from fossil fuel-generated electricity to increased renewable energy. The 2020 California Gas Report states, "SoCalGas projects total gas demand to decline at an annual rate of 1.0 percent per year from 2020 to 2035.[64] The decline in throughput demand is due to modest growth in the natural gas vehicle market and across-the-board declines in other market segments." As such, SoCalGas' existing and planned natural gas capacity, supplies and infrastructure would be sufficient to serve the Project's demand.

(c) Transportation Energy

As stated above, at buildout, the Project would consume a net increase of 46,419 gallons of gasoline and 6,437 gallons of diesel per year. For comparison purposes, the transportation-related fuel usage for the Project would represent 0.001 percent of the 2019 annual on-road gasoline- and 0.001 percent of the 2019 annual on-road diesel-related energy consumption in Los Angeles County (based on the available County fuel sales data). Detailed calculations are shown in in Appendix F of this Draft EIR. Operational transportation energy would be provided by existing retail service stations, and, as such, no new retail service stations would be required. Transportation fuels (gasoline and diesel) are produced from crude oil, which can be produced from domestic supplies or imported from various regions around the world and, based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[65] As such, existing and planned transportation fuel supplies would be sufficient to serve the Project's demand. In addition, the Project would provide EV charging stations, which would serve to incentivize the use of hybrid or full electric vehicles, thereby reducing the reliance on transportation fuels. **As energy consumption during operation would be relatively negligible and within existing and planned supplies, the Project would not affect the local and/or regional energy supplies and would not require additional capacity.**

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

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of the LADWP's power grid and

63 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 145.

64 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 37

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

base load conditions and would be consistent with expected levels of electricity demand. With regard to peak load conditions, the LADWP power system experienced an all-time high peak of 6,502 MW on August 31, 2017.[66] LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next ten years (approximately 30 MW per year).[67] Based on LADWP estimates for 2025-2026 (closest forecasted year to first project operational year), the base case peak demand for the power grid is 6,076 MW.[68] Under peak conditions, the Project would consume a net increase of 1,811,215 kWh on an annual basis which, assuming 12 hours of active electricity demand per day, would be equivalent to 414 kW (peak demand assuming 4,380 hours per year of active electricity demand).[69] In comparison to the LADWP power grid base peak load of 6,076 MW for 2025-2026, based on the assumption above, the Project would represent 0.007 percent of the LADWP base peak load conditions and, therefore, would not create any new peak demand impacts that are inconsistent with LADWP demand projections.[70] In addition, as noted above, LADWP's peak demand forecast accounts for a growth rate of 0.4 percent over the next ten years. **Therefore, the Project's electrical consumption during operational activities would have a negligible effect on peak load conditions of the power grid and is within existing and planned demand.**

(d) The Effects of the Project on Energy Resources

As discussed above, LADWP's electricity generation is derived from a mix of non-renewable and renewable sources, such as coal, natural gas, solar, geothermal wind and hydropower. The LADWP 2017 Power Strategic Long-Term Resource Plan identifies adequate energy resources to support future generation capacity, and, as discussed above, LADWP's existing and planned electricity capacity and supplies would be sufficient to serve the Project's electricity demand.[71] As discussed above in the Regulatory Framework, one of the objectives of SB 350 was to increase the procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 33 percent to 50 percent of its energy portfolio from renewable sources by 2030. LADWP has met its 2020 requirement. The current sources of LADWP's renewable energy include biomass and biowaste,

66 Los Angeles Department of Water and Power, 2017 Retail Electric Sales and Demand Forecast, September 2017, page 6.

67 Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 74.

68 Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, Appendix A, Table A-1.

69 Calculated as follows: 26,472,098 kWh / 4,380 hours = 6,044 kW.

70 Calculated as follows: 488 kW / 6,076,000 kW = 0.007 percent.

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

geothermal, eligible hydroelectric, solar, and wind sources. These sources account for 34 percent of LADWP's overall energy mix in 2019, which is the most recent year for which data are available.[72] LADWP has committed to providing an increasing percentage of its energy portfolio from renewable sources so as to exceed the RPS requirements. Prior to the passage of SB 100 in September 2018, LADWP committed to exceeding the then-current RPS requirements by increasing to 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036.[73] With the passage of SB 100, LADWP will be required to update its long-term plans to demonstrate compliance with the updated requirements including providing 60 percent of its energy portfolio from renewable sources by December 31, 2030 and ultimately planning for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045. This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

With regard to on-site renewable energy sources, the Project would meet the applicable requirements of the Los Angeles Green Building Code and the CALGreen Code. The Project will implement Project Design Feature GHG-PDF-1, where the Project will include solar voltaic panels on roof of the gymnasium to reduce the amount of electricity drawn from City utilities by approximately 11.5 percent.

As discussed above, natural gas supplied to the Southern California area is mainly sourced from out-of-state with a small portion originating in California. According to the U.S. Energy Information Administration (EIA), the U.S. currently has approximately 90 years of natural gas reserves based on 2016 consumption.[74] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years.[75] Therefore, as the Project would comply with energy efficiency standards for natural gas, Project construction and operation activities would have a negligible effect on natural gas supply.

As stated earlier in the discussion under Threshold (a)(1)(i)(c) and Threshold (a)(1)(ii)(c), transportation fuels (gasoline and diesel) are produced from crude oil, which can be provided domestically or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption.[76] Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

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72 Los Angeles Department of Water and Power, 2019 Power Content Label, October 2020.

73 Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page ES-3.

74 U.S. Energy Information Administration, How much natural gas does the United States have, and how long will it last?, last updated April 9, 2018, https://www.eia.gov/tools/faqs/faq.php?id=58&t=8, accessed December 5, 2020.

75 California Energy Commission, Tracking Progress – Energy Efficiency, last updated September 2018.

76 BP Global, Oil reserves, 2018, https://www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil.html, accessed December 2020.

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

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

As discussed in Section IV.G, *Greenhouse Gas Emissions*, and Section IV.J*, Land Use and Planning*, of this Draft EIR, the SCAG 2020-2045 RTP/SCS presents the transportation vision for the region through the year 2045 and provides a long-term investment framework for addressing the region's transportation and related challenges. As shown in Exhibit 3.8 of the SCAG 2020-2045 RTP/SCS, the Project Site is located within an HQTA, which SCAG defines as "corridor-focused Priority Growth Areas within one half mile of an existing or planned fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes (or less) during peak commuting hours."[77] The 2020-2045 RTP/SCS encourages increasing the density of development within HQTAs and other infill locations, to reduce VMT and trips.[78]

The Project would concentrate school and community serving recreational and athletic facility uses within an HQTA in an urban infill location in proximity to multiple public transit stops. The primary pedestrian/bicycle entrance to the Project Site would be provided off Whitsett Avenue near the north vehicle entrance driveway. Seven additional exterior pedestrian entrance gates would be located along the Project Site perimeter in order to further encourage the use of public transit to access the Project Site in addition to other modes of transportation, such as walking and bicycling. The Project Site's location within an HQTA would be consistent with and would not conflict with SCAG's land use types for the area and would encourage the use of alternative and efficient modes of transportation, which would result in a reduction in overall VMT (refer to the detailed VMT analysis provided in Section IV.G, *Greenhouse Gas Emissions*, and Section IV.M, *Transportation*, of this Draft EIR). Several transit providers operate service within the immediate vicinity, including LADOT's DASH Van Nuys/Studio City bus with stops at Whitsett Avenue/Valley Spring Lane adjacent to the Project Site, and Metro's local Line 167 with stops at Whitsett Avenue/Ventura Boulevard, 0.13 miles to the south. Transit service also includes Metro's Bus Rapid Transit Line 750 and local Line 150/240 bus at Ventura Boulevard/Coldwater Canyon, which provide connection to Metro's B (Red) Line Universal City/Studio City Station, 2.25 miles to the east, which also serves the Metro G (Orange) Line. The high density of the Sherman Oaks–Studio City–Toluca Lake–Cahuenga Pass Community Plan area supports the expectation that projects located in the area would provide walkability and high potential for transit usage by Project spectators, visitors, students, and

[77] Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, December 2020, pages 51 and 91.

[78] Southern California Association of Governments, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, December 2020, pages 50-51.

employees. The Project would implement a variety of transportation demand management (TDM) strategies that would further reduce Project-related trips and VMT, such as transit fare discounts, a ride-sharing program, and a shuttle system between the School's Upper School Campus and the Project Site whenever School activities are underway at the Project Site. In addition, the Project will promote alternatives to conventionally fueled automobiles by installing 10 percent of the total provided parking spaces with EV charging stations per LAMC requirements.

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

(f) Conclusion Regarding Threshold (a)

As demonstrated by the analyses of the five criteria discussed above, the Project would not cause wasteful, inefficient, or unnecessary consumption of energy during construction or operation. The Project's energy usage during peak and base periods would also not conflict with electricity, natural gas, and transportation fuel future projections for the region. During operations, the Project would comply with and exceed existing minimum energy efficiency requirements, such as the Title 24 standards and CALGreen Code. In summary, the Project's energy demands would not significantly affect available energy supplies and would comply with existing energy efficiency standards. **Therefore, Project impacts related to energy use under Significance Threshold (a) would be less than significant during construction and operation, and would not cause wasteful, inefficient, and unnecessary consumption of energy.**

(2) Mitigation Measures

Impacts regarding wasteful, inefficient, and unnecessary consumption of energy were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

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

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

(1) Impact Analysis

(a) Construction

As discussed below, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. With respect to truck fleet operators, the USEPA and NHSTA have adopted fuel efficiency standards for medium- and heavy-duty

trucks. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles and are phased in 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.[79] USEPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which would be phased in from 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.[80] The energy modeling for trucks does not take into account specific fuel reductions from these regulations, since they would apply to fleets as they incorporate newer trucks meeting the regulatory standards; however, these regulations would have an overall beneficial effect on reducing fuel consumption from trucks over time as older trucks are replaced with newer models that meet the standards.

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

Based on the above, Project construction activities would not conflict with energy conservation plans and impacts would be less than significant.

(b) Operation

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

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

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

Project Design Features WS-PDF-1 and WS-PDF-2 in Section IV.O.1, *Utilities and Service Systems –Water Supply and Infrastructure*, of this Draft EIR.

Electricity and natural gas usage during Project operations, as presented in Table IV.E-2, would be minimized through incorporation of applicable 2019 Title 24 standards, applicable 2019 CALGreen requirements, and the Los Angeles Green Building Code. Furthermore, the Project incorporates energy-conservation measures beyond regulatory requirements as specified in Project Design Feature GHG-PDF-1, which includes solar panels on the roof of the gymnasium that will offset some of its overall energy usage with on-site renewable electricity. The Project would also provide sustainability features that would all reduce the Project's outdoor water demand as described in Section IV.O, *Utilities and Service Systems –Water Supply and Infrastructure.*

The Project would also be consistent with and not conflict with regional planning strategies that address energy conservation. As discussed above and in Section IV.G, *Greenhouse Gas Emissions*, as well as Section IV.J, *Land Use and Planning*, of this Draft EIR, SCAG's 2020-2045 RTP/SCS focuses on creating livable communities with an emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2020-2045 RTP/SCS focus on reducing fossil fuel use by decreasing VMT, encouraging the reduction of building energy use, and increasing use of renewable sources. The Project's design and its location on an infill site within an HQTA in proximity to transit; its proximity to existing off-site retail, restaurant, entertainment, commercial, and job destinations; and its walkable environment would achieve a reduction in VMT. These land use characteristics are included in the transportation fuel demand for the Project's mobile sources. Additional detailed information regarding these land use characteristics are provided in Section IV.B*, Air Quality,* and Section IV.G, *Greenhouse Gas Emissions*, of this Draft EIR. With respect to operational transportation-related fuel usage, the Project would support Statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private automobiles. The Project would also benefit from fuel and automotive manufacturers' compliance with CAFE fuel economy standards and the Pavley Standards, which are designed to result in more efficient use of transportation fuels. The Project would also utilize a shuttle system for students and, optionally, employees and visitors between the Harvard-Westlake School's Upper School Campus and the Project Site whenever school uses are taking place on the Project Site.

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

(2) Mitigation Measures

Impacts regarding conflicts with or obstructing a state or local plan for renewable energy or energy efficiency were determined to be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

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

e) Cumulative Impacts

(1) Impact Analysis

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

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

(i) Electricity

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. However, LADWP, in coordination with the CEC, account for future increases in service area demand based on various economic, population, and efficiency factors. LADWP relies on multiple forms of data from various agencies, including historical sales from the General Accountings Consumption and Earnings report, historical Los Angeles County employment data provided from the State's Economic Development Division, PEV projections from the CEC account building permits when determining electricity Load Forecasts, solar rooftop installations from the Solar

Energy Development Group, electricity price projections from the Financial Services organization, and LADWP program efficiency forecasts.[81] As described in LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards.[82] The 2017 Power Strategic Long-Term Resource Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements.[83] Accordingly, LADWP considers projected Los Angeles County building permit amounts calculated by the UCLA Anderson School of Management when determining its load forecast and would, therefore, account for the Project's and the related projects' electricity demand within its forecasts.[84] Thus, LADWP considers growth from related projects within its service area for the increase in demand for electricity, as well as the need for energy infrastructure, such as new or expanded energy facilities.

Thus, although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could affect future availability, the Project's use of such resources would be on a relatively small scale and would be reduced by measures rendering the Project more energy efficient. The Project would also incorporate additional energy efficiency measures outlined in Project Design Features GHG-PDF-1, WS-PDF-1, and WS-PDF-2 (refer to Section IV.G, *Greenhouse Gas Emissions*, and Section IV.O.1, *Utilities and Service Systems –Water Supply and Infrastructure*, of this Draft EIR). Further, LADWP has issued a will-serve letter confirming that the Project is part of the total load growth forecast and has been taken into account in the planned growth of the City's power system.[85] Related projects, as with the Project, would be required to evaluate energy impacts during construction and operation related to the wasteful, inefficient or unnecessary use of electricity, incorporate energy conservation features, comply with applicable regulations including the City's Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate potential impacts related to local and regional supplies or capacity based on regional growth plans, such as the SCAG 2020-2045 RTP/SCS, and LADWP energy supply projections for long-term planning. Each of the related projects would be reviewed by the local utility provider to identify necessary electricity

[81] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 70.

[82] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page ES-2.

[83] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page ES-2.

[84] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 67.

[85] Los Angeles Department of Water and Power, Harvard-Westlake River Park Will-Serve Letter, January 7, 2021. Included in Appendix F of this Draft EIR.

service connections to meet the needs of their respective projects. In addition, the local utility provider would provide service letters (which take into account all current uses and projected future development projects) for each related project confirming availability of adequate electricity supplies and infrastructure as part of the total load growth of the regional power system and. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project Site area.

Additionally, as discussed above, LADWP was required to procure a minimum of 33 percent of its energy portfolio from eligible renewables sources by 2020, which LADWP has achieved. LADWP's current sources of renewable energy include biomass and biowaste, geothermal, eligible hydroelectric, solar and wind, and accounted for 34 percent of LADWP's overall energy mix, the most recent year for which data are available.[86] This represents the available off-site renewable sources of energy that could meet the Project's and related projects energy demand. Therefore, the Project and related projects would comply with the energy conservation plans and efficiency standards required to ensure efficient energy use.

As such, the Project's impact, when considered together with related projects, would not be cumulatively considerable and would not result in cumulatively significant impacts related to wasteful, inefficient or unnecessary use of electricity.

(ii) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and on infrastructure capacity. As stated above, based on the 2020 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 854,830 million cf in 2025 (the Project's buildout year).[87] The Project would account for 0.0002 percent of the 2025 forecasted consumption in SoCalGas' planning area. SoCalGas forecasts consider projected population growth and development based on local and regional plans, and the Project's growth and development would not conflict with those projections. Additionally, as with the Project, each of the related projects would be reviewed by SoCalGas to identify necessary natural gas service connections to meet the needs of their respective projects, and SoCalGas would provide service letters for each related project confirming availability of adequate natural gas supplies as part of the total load growth of the regional natural gas system. Natural gas infrastructure is expanded and improved in response to increasing demand and it is expected that SoCalGas would continue to expand delivery capacity if necessary to meet growth requirements in the service area. Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project

86 Los Angeles Department of Water and Power, 2019 Power Content Label, October 2020.

87 California Gas and Electric Utilities, 2020 California Gas Report, 2020, page 145.

more energy-efficient, would be consistent with regional and local growth expectations for SoCalGas' service area, and would not result in the need to construct new or expand existing natural gas facilities or distribution lines.

Related projects, as with the Project, would be required to evaluate natural gas impacts during construction and operation related to the wasteful, inefficient or unnecessary use of natural gas, incorporate energy conservation features, comply with applicable regulations including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. As with the Project, related projects would also be required to obtain evidence of service from SoCalGas, or the appropriate utility provider, to ensure that natural gas service would be available and provided to meet related project demands. Furthermore, the related projects are generally infill projects in a highly urbanized area already served by existing facilities and are generally residential, mixed-use, and commercial projects and not high-energy demand facilities, such as heavy industrial uses.

As such, the Project's contribution to cumulative impacts due to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.

(iii) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. As described above, at buildout, the Project would consume a total net increase of 46,419 gallons of gasoline and 6,437 gallons of diesel per year. For comparison purposes, the transportation-related fuel usage for the Project would represent between 0.001 percent of the 2019 annual on-road gasoline- and 0.001 percent of the annual on-road diesel-related energy consumption in Los Angeles County (based on the available County fuel sales data), as shown in Appendix F of this Draft EIR.

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

The Project would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and a reduction in overall VMT. The Project Site is an infill location close to jobs, off-site housing, shopping and entertainment uses and in close proximity to existing public transit stops, which would result in reduced VMT, as compared to a project of similar size and land uses at a location without close and walkable access to off-site destinations and public transit stops. The Project would concentrate recreational and

athletic facility uses within an HQTA in an urban infill location in proximity to multiple public transit stops. Therefore, operation of the Project would provide spectators, visitors, students, and employees with transportation options, and the implementation of construction features would reduce idling times and construction transportation fuel use.

The 2020-2045 RTP/SCS is a regional planning tool that address cumulative growth and resulting environmental effects and is applicable to the Project and related projects with respect to transportation energy efficiency. Related projects would be required under CEQA to evaluate if their respective developments would conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS, such as the per capita VMT targets, promotion of alternative forms of transportation, proximity to public transportation options, provisions for encouraging multi-modal and energy efficient transit, such as by accommodating bicycle parking and EV chargers at or above regulatory requirements. Furthermore, as with the Project, the related projects within the Project vicinity and HQTA would similarly be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions that would not be in conflict with applicable provisions of the SCAG 2020-2045 RTP/SCS for the land use type.

Since the Project would not conflict with the 2020-2045 RTP/SCS, the Project's contribution to cumulative impacts due to wasteful, inefficient or unnecessary use of transportation fuel would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.

(iv) Conclusion

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

(b) Threshold (b): Consistency with State or Local Plan

(i) Electricity

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and on infrastructure capacity. However, as discussed above, LADWP and the CEC account for increases in demand and load forecast based on various economic, population, and efficiency factors and relies on multiple forms of data from various agencies.[88] In addition, LADWP considers projected Los Angeles County building permit amounts when

[88] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 70.

determining its load forecast and would therefore account for the Project's and the related projects' electricity demand within its forecasts.[89]

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

As such, the Project's contribution to cumulative impacts due to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.

(ii) Natural Gas

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

Related projects, as with the Project, would be required to evaluate natural gas conservation features and compliance with applicable regulations, including the Los Angeles Green Building Code, the Title 24 standards and CALGreen Code, and incorporate mitigation measures, as necessary under CEQA. Related projects, as with the Project, would also be required to evaluate potential impacts related to consistency with the L.A.'s Green New Deal standards, and local and regional supplies or capacity based on regional growth plans, such as the SoCalGas energy supply projections for long-term planning.

As such, the Project's contribution to cumulative impacts due to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would not be cumulatively considerable, and, thus, cumulative impacts would be less than significant.

[89] Los Angeles Department of Water and Power, 2017 Power Strategic Long-Term Resource Plan, December 2017, page 67.

(iii) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. However, as discussed above, the Project would not conflict with the energy efficiency policies emphasized by the 2020-2045 RTP/SCS. As discussed previously, the Project would be consistent with and not conflict with SCAG's land use type for the area and would encourage alternative transportation and achieve a reduction in VMT compared to a standard non-infill project and based on its location efficiency.

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

Since the Project would not conflict with the 2020-2045 RTP/SCS, the Project's contribution to cumulative impacts related to potentially significant environmental impacts due to conflicting with or obstruction of a state or local plan for transportation energy efficiency would not be would not be cumulatively considerable and, thus, would be less than significant.

(iv) Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to conflicting with or obstruction of a state or local plan for renewable energy or energy efficiency would not be cumulatively considerable; therefore, cumulative energy impacts under Threshold (b) would be less than significant.

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Cumulative impacts during construction and operation would be less than significant without mitigation. When considered together with related projects, energy impacts would not result in a cumulatively considerable impact. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

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