IV. Environmental Impact Analysis

B. Energy

1. Introduction

This section of the Draft EIR provides the content and analysis required by Public Resources Code (PRC) Section 21100(b)(3) and described in Appendix F to the Guidelines for the Implementation of the California Environmental Quality Act (CEQA) (14 California Code of Regulations [CCR] Sections 15000 et seq.). In accordance with CEQA and Appendix F, Energy Conservation, of the CEQA Guidelines, in order to assure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (PRC Section 21100(b)(3)).

Consistent with the goals of Appendix F to conserve energy by decreasing overall per capita energy consumption, decreasing reliance on fossil fuels, and increasing reliance on renewable energy sources, this section analyzes the Project's potential impacts on energy resources, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section evaluates the demand for energy resources attributable to the Project and makes a determination as to whether the Project would result in a potentially significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction and operation and whether the Project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Appendix G of the State CEQA Guidelines checklist, Section VI, Energy, also includes questions to assist lead agencies when assessing a project's potential energy impacts.

This section also demonstrates whether the current and planned electrical, natural gas, and petroleum-based fuel supplies and distribution systems are adequate to meet the Project's forecasted energy consumption. The information presented herein is based, in part, on the *Energy Calculations for 8th, Grand and Hope Project* prepared by Eyestone Environmental and included as Appendix C of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

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

First established by Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[1]

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.[2]

In August 2016, the USEPA and NHTSA finalized Phase 2 standards for medium- and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The Phase 2 standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and save vehicle owners fuel costs of about $170 billion.[3]

On April 2, 2018, the USEPA signed the Mid-term Evaluation Final Determination which found that the model year 2022–2025 GHG standards are not appropriate and

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[1] *For more information on the CAFE standards, refer to www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy, accessed January 19, 2018.*

[2] *The emission reductions attributable to the regulations for medium- and heavy-duty trucks were not included in the Project's emissions inventory due to the difficulty in quantifying the reductions. Excluding these reductions results in a more conservative (i.e., higher) estimate of emissions for the Project.*

[3] *USEPA and NHTSA Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles – Phase 2. Regulatory Impact Analysis Final Rule. Table 2. August 2016*

should be revised.[4] On August 24, 2018, the USEPA and NHTSA published a proposal to freeze the model year 2020 standards through model year 2026 and to revoke California's waiver under the Clean Air Act to establish more stringent standards.[5]

In addition, on September 27, 2019, the USEPA withdrew the waiver it had previously provided to California for the State's GHG and Zero Emission Vehicle (ZEV) programs under Section 209 of the Clean Air Act.[6] The withdrawal of the waiver became effective November 26, 2019. In response, several states including California have filed a lawsuit challenging the withdrawal of the EPA waiver.[7] As of December 2020, the lawsuit is still ongoing.

(b) Safer Affordable Fuel Efficient Vehicles Rule

In March of 2020, the USEPA and NHTSA issued the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE) which amend the existing CAFE and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and set fuel economy and carbon dioxide standards that increase 1.5 percent in stringency each year from model year 2021 standards through model year 2026. [8]

(c) Energy Independence and Security Act

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

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

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[4] *Federal Register, Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022–2025 Light-Duty Vehicles, www.federalregister.gov/documents/2018/04/13/2018-07364/mid-term-evaluation-of-greenhouse-gas-emissions-standards-for-model-year-2022-2025-light-duty, accessed November 11, 2020.*

[5] *Regulations, The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0756, accessed November 11, 2020.*

[6] *84 Federal Register 51310.*

[7] *United States District Court for the District Court of Columbia, State of California vs. Chao, Case 1:19-cv-02826, 2019.*

[8] *Regulations.gov, The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks.*

conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

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

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

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."[9]

(2) State

(a) California Building Standards Code (Title 24)

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

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. On May 9, 2018, the CEC adopted the 2019 Title 24 Standards, which will go into effect on January 1, 2020. The 2019 standards continue to improve upon the previous (2016) Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.[10] The 2019 Title 24 Standards represent "challenging but achievable design and construction practices" that represent "a major step towards meeting the Zero Net Energy (ZNE) goal."[11] Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016

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[9] *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.*

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

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

standards. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.[12]

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

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2017. The 2016 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.[13] The CalGreen code is updated regularly with the latest version (2019) in effect since January 1, 2020. Most mandatory measure changes in the 2019 CALGreen Code from the previous 2016 CALGreen Code were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to outdoor water use were clarified to present a more generic reference to irrigation requirements for residential developments. In addition, the 2019 CALGreen Code resulted in minor changes to voluntary measures related to landscaping water usage and indoor air quality. Compliance with the CALGreen Code is enforced through the building permit process.

(b) California's Renewable Portfolio Standard

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) require retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020.[14] The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.[15] The CEC's responsibilities include: (1) certifying renewable facilities as eligible for the RPS; and (2) designing and implementing a tracking and verification system to ensure that renewable energy output is counted only once for the purpose of the RPS and verifying retail product claims in

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

[13] *California Building Standards Commission, Guide to the 2016 California Green Building Standards Code Nonresidential, January 2017.*

[14] *CPUC, California Renewables Portfolio Standard (RPS), www.cpuc.ca.gov/RPS_Homepage/, accessed December 12, 2017.*

[15] *CPUC, California Renewables Portfolio Standard (RPS), www.cpuc.ca.gov/RPS_Homepage/, accessed December 12, 2017.*

California or other states. In 2018, SB 100, discussed further below, increased the RPS to 60 percent by 2030 and requires all the State's electricity to come from carbon-free resources by 2045.

(c) Senate Bill 350

SB 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of Executive Order B-30-15, issued in April 2015, which established a new statewide policy goal to reduce greenhouse gas (GHG) emissions 40 percent below their 1990 levels by 2030. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent by 2030; and (2) to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation by 2030.[16]

(d) Senate Bill 100

SB 100, signed September 10, 2018, is the 100 Percent Clean Energy Act of 2018. SB 100 updates the goals of California's Renewable Portfolio Standard and SB 350, as discussed above, to the following: achieve 50 percent renewable resources target by December 31, 2026, and achieve a 60-percent target by December 31, 2030. SB 100 also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.[17]

(e) Assembly Bill 32

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

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

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

(f) Assembly Bill 1493 (AB 1493)/Pavley Regulations

AB 1493 (commonly referred to as CARB's Pavley regulations) was the first legislation to regulate GHG emissions from new passenger vehicles. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks) for model years 2009–2016.[18] It is expected that the Pavley regulations would reduce GHG emissions from California's passenger vehicles by about 30 percent in 2016, while improving fuel efficiency and reducing motorists' costs.[19] While the main purpose is to reduce GHG emissions, the Pavley regulations would also result in better fuel efficiency. In comparison to the Federal CAFE standard of 35 miles per gallon (mpg), the California average fuel economy would be 43 mpg in 2020.[20]

(g) California Air Resources Board

(i) CARB's Advanced Clean Cars Program

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions-control program was approved by CARB in 2012.[21] The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.[22] The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[23] In March 2017, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV program for cars and light trucks sold in California through 2025.[24]

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[18] *CARB, Clean Car Standards—Pavley, Assembly Bill 1943, www.arb.ca.gov/cc/ccms/ccms.htm, last reviewed January 11, 2017.*

[19] *CARB, Clean Car Standards—Pavley, Assembly Bill 1943, www.arb.ca.gov/cc/ccms/ccms.htm, last reviewed January 11, 2017.*

[20] *CARB, Addendum to February 25 Technical Assessment, Comparison of Greenhouse Gas Reductions for the United States and Canada under ARB Regulations and Proposed 2011–2015 Model Year Fuel Economy Standards, May 8, 2008.*

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

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

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

[24] *CARB, News Release, CARB finds vehicle standards are achievable and cost-effective, www.arb.ca.gov/newsrel/newsrelease.php?id=908, accessed May 17, 2018.*

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.

On September 27, 2019, the USEPA withdrew the waiver it had previously provided to California for the State's GHG and ZEV programs under Section 209 of the Clean Air Act.[25] The withdrawal of the waiver became effective November 26, 2019. In response, several states including California have filed a lawsuit challenging the withdrawal of the EPA waiver.[26] The CARB is currently enforcing the affected portions of the waiver on a voluntary basis, including issuing certifications for the greenhouse gas emissions and zero-emission vehicle programs.[27] USEPA is currently considering reversing the revocation of the waiver.[28]

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

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, CCR, Division 3, Chapter 10, Section 2485) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. This measure applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuels used by the vehicle.

(iii) CARB's In-Use Off-Road Diesel Fueled Fleets Regulation

Since off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. In 2007, CARB approved the "In-Use Off-Road Diesel Fueled Fleets Regulation" to reduce emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation sets an

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[25] *84 FR 51310.*

[26] *United States District Court for the District Court of Columbia, State of California vs. Chao, Case 1:19-cv-02826, 2019.*

[27] *California Air Resources Board, ww2.arb.ca.gov/es/resources/documents/carb-waiver-timeline.*

[28] *USEPA, News Release, EPA Reconsiders Previous Administration's Withdrawal of California's Waiver to Enforce Greenhouse Gas Standards for Cars and Light Trucks, www.epa.gov/newsreleases/epa-reconsiders-previous-administrations-withdrawal-californias-waiver-enforce.*

anti-idling limit of 5 minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. Revised in October 2016, the regulation enforced off-road restrictions on fleets adding vehicles with older tier engines, 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.

(h) Sustainable Communities Strategy (SB 375)

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32. SB 375 specifically requires each Metropolitan Planning Organization (MPO) to prepare a "sustainable communities strategy" (SCS) as part of its Regional Transportation Plan (RTP), which is required by the state and federal government, that will achieve GHG emission reduction targets set by CARB for the years 2020 and 2035 by reducing vehicle miles travelled (VMT) from light duty vehicles through the development of more compact, complete and efficient communities.[29]

The Project Site is located within the planning jurisdiction of the Southern California Association of Governments (SCAG). SCAG's first-ever Sustainable Communities Strategy (SCS) was included in the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS), which was adopted by SCAG in April 2012. The goals and policies of the SCS that reduce VMT (and result in corresponding decreases in transportation-related fuel consumption) focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. SCAG has since adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS) and the 2020–2045 RTP/SCS.[30] Specific goals of the 2020–2045 RTP/SCS include to reduce greenhouse gas emissions and improve air quality; leverage new transportation technologies and data-driven solutions that result in more efficient travel; and encourage development of diverse housing types in areas that are supported by multiple transportation options. These goals would serve to reduce

[29] *CARB, Sustainable Communities, www.arb.ca.gov/cc/sb375/sb375.htm, page last updated April 26, 2018.*

[30] *SCAG, 2016–2040 RTP/SCS, dated April 2016.*

transportation fuel usage. With respect to goals and policies regarding energy, these updated plans are substantially consistent with the 2020–2045 RTP/SCS. See further discussion below.

(i) Senate Bill 1389

SB 1389 (Public Resources Code Sections 25300–25323) requires the development of an integrated plan for electricity, natural gas, and transportation fuels. The CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report (IEPR) every two years. In 2018, the CEC decided to write the Integrated Energy Policy Report in two volumes. Volume I, which was published on August 1, 2018, highlights the implementation of California's policies and the role they have played in establishing a clean energy economy. Volume II, which was adopted February 20, 2019, provides more detail on several key energy issues.[31] The IEPR contains recommendations on energy usage policies such as decarbonizing buildings, doubling energy efficiency savings, increasing flexibility in the electrical system to integrate more renewable energy, and reduce petroleum use in cars and trucks by up to 50 percent.

(j) California Environmental Quality Act

Appendix F of the CEQA Guidelines provides a list of energy-related items that may be included throughout the various chapters of an EIR, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. In addition, while not described as significance thresholds for determining the significance of impacts related to energy, Appendix F provides topics that the lead agency may consider in the discussion of energy use in an EIR, where topics are applicable or relevant to the project, as detailed below in Subsection 3.a.

(3) Regional

As discussed in Section IV.D, Land Use and Planning, of this Draft EIR, SCAG's 2016–2040 RTP/SCS presents a long-term transportation vision through the year 2040 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. On April 7, 2016, the SCAG Regional Council adopted the 2016–2040 RTP/SCS, the mission of which is "leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians." The 2016–2040 RTP/SCS includes land use strategies that focus on urban infill growth and walkable, mixed-use communities in existing urbanized and opportunity areas. More mixed-use, walkable, and urban infill development would be expected to

[31] *2018 Integrated Energy Policy Report, Volume I, August 2018.*

accommodate a higher proportion of growth in more energy-efficient housing types like townhomes, apartments, and smaller single-family homes, as well as more compact commercial building types. Furthermore, the 2016–2040 RTP/SCS includes transportation investments and land use strategies that encourage carpooling, increase transit use, active transportation opportunities, and promoting more walkable and mixed-use communities, which would potentially help to reduce VMT.

The 2020–2045 RTP/SCS was approved on September 3, 2020. The vision for the region incorporates a range of best practices for increasing transportation choices, reducing dependence on personal automobiles, further improving air quality and encouraging growth in walkable, mixed-use communities with ready access to transit infrastructure and employment. More and varied housing types and employment opportunities would be located in and near job centers, transit stations and walkable neighborhoods where goods and services are easily accessible via shorter trips. To support shorter trips, people would have the choice of using neighborhood bike networks, car share or micro-mobility services like shared bicycles or scooters. For longer commutes, people would have expanded regional transit services and more employer incentives to carpool or vanpool. Other longer trips would be supported by on-demand services such as microtransit, carshare, and citywide partnerships with ride hailing services. For those that choose to drive, hotspots of congestion would be less difficult to navigate due to cordon pricing, and using an electric vehicle will be easier thanks to an expanded regional charging network.

The 2020–2045 RTP/SCS also identifies High-Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.[32] Local jurisdictions are encouraged to focus housing and employment growth within HQTAs to reduce VMT. The Project Site is located within a HQTA as designated by the 2020–2045 RTP/SCS.[33] The Project Site is approximately two blocks from the Los Angeles County Metropolitan Transportation Authority (Metro) 7th Street/Metro Center Rail Station, which contains the Metro Red, Purple, Blue, and Expo lines with headways 15-minutes or less, and is a hub of the regional rail network, connecting passengers to Pasadena, East Los Angeles, Long Beach, Culver City, Santa Monica, Hollywood, Korea Town, and North Hollywood. Metro also operates four rail lines, six Rapid bus lines, three Express lines and 28 Local lines in the Project vicinity. Additional transit lines in the Project vicinity include nine LADOT Commuter Express lines, five

[32] *SCAG, 2020–2045 RTP/SCS, p. 23.*

[33] *SCAG, 2020–2045 RTP/SCS; Exhibit 3.8: High Quality Transit Areas in the SCAG Region for 2045 Plan, p. 90.*

LADOT Dash bus lines, eight Foothill Transit bus lines, two Orange County Transportation Authority bus lines, one Santa Monica Big Blue Bus line and one Torrance Bus line.

The 2020–2045 RTP/SCS states that the SCAG region was home to about 18.8 million people in 2016 and currently includes approximately 6.0 million homes and 8.4 million jobs.[34] By 2045, the integrated growth forecast projects that these figures will increase by 3.7 million people, with nearly 1.6 million more homes and 1.6 million more jobs. Transit Priority Areas[35] (TPAs) will account for less than one percent of regional total land but are projected to accommodate 30 percent of future household growth between 2016 and 2045. A "transit priority area" is defined as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations."[36] While TPA and HQTAs are similar, Transit Priority Areas focus on availability of major transit stops while HQTAs are focus on transit corridors (freeways, bus lines).

The 2020–2045 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's TPAs. TPAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions and related VMT by 19 percent by 2035, which is consistent with SB 375 compliance with respect to meeting the State's GHG emission reduction goals.[37]

(4) Local

(a) City of Los Angeles Green Building Code

On December 11, 2019, the Los Angeles City Council approved Ordinance No. 186,488, which amended Chapter IX, Article 9 of the Los Angeles Municipal Code (LAMC), referred to as the "Los Angeles Green Building Code," by amending certain

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[34] *2020–2045 RTP/SCS population growth forecast methodology includes data for years 2010, 2010, 2016, and 2045.*

[35] *Defined by the 2020–2045 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a major transit stop (rail or bus rapid transit station) with 15-minute or less service frequency during peak commute hours.*

[36] *PRC Section 21099(a)(7).*

[37] *SCAG, Final 2020–2045 RTP/SCS, Making Connections, p. 5, May 7, 2020.*

provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2019 CALGreen Code. Projects filed on or after January 1, 2020, must comply with the provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for two categories: residential and non-residential buildings: Article 9, Division 4 and 5 includes mandatory measures for newly constructed residential and nonresidential buildings respectively. Mandatory measures include installation of electrical raceways to future electric vehicle supply equipment (EVSE), reduce water use by 20 percent compared to maximum allowable water use per plumbing fixture as required by the LAMC, and use of roofing material to reduce the heat island effect.

(b) City of Los Angeles Sustainable City pLAn/L.A.'s 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. 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. The 2019 Sustainable City pLAn/L.A.'s Green New Deal has established targets such as 100 percent renewable energy by 2045, installation of 10,000 publicly available EV chargers by 2022 and 28,000 by 2028, diversion of 100 percent of waste by 2050, and recycling of 100 percent of wastewater by 2035.

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

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, in 2015, 3.61 million tons of aluminum were produced by recycling in the United States, saving enough energy to provide electricity to 7.5 million homes.[38] In 1989, California enacted Assembly Bill 939 (AB 939), the California Integrated Waste Management Act which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.[39] The City of Los Angeles includes programs and ordinances related to solid waste. They include: (1) the City of Los Angeles Solid Waste Management Policy Plan, which was adopted in 1993 and is a long-range policy plan promoting source reduction for recycling for a minimum of 50 percent of the City's waste by 2000 and 70 percent of the waste by 2020; (2) the RENEW LA Plan, which is a Resource Management Blueprint with the aim to

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[38] *American Geosciences Institute, How Does Recycling Save Energy?, www.americangeosciences.org/critical-issues/faq/how-does-recycling-save-energy, accessed November 26, 2019.*

[39] *CalRecycle, History of California Solid Waste Law, 1985-1989, www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989.htm, accessed November 19, 2019.*

achieve a zero waste goal through reducing, reusing, recycling, or converting the resources now going to disposal so as to achieve an overall diversion level of 90 percent or more by 2025; (3) the Waste Hauler Permit Program (Ordinance 181,519), which requires all private waste haulers collecting solid waste, including construction and demolition waste, to obtain AB 939 Compliance Permits and to transport construction and demolition waste to City certified construction and demolition processing facilities; and (4) the Exclusive Franchise System Ordinance (Ordinance No. 182,986), which, among other requirements, sets maximum annual disposal levels and specific diversion requirements for franchised waste haulers in the City to promote solid waste diversion from landfills in an effort to meet the City's zero waste goals. These solid waste reduction programs and ordinances help to reduce the number of trips to haul solid waste, therefore reducing the amount of petroleum-based fuel, and also help to reduce the energy used to process solid waste.

b. Existing Conditions

(1) Electricity

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

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

The Los Angeles Department of Water and Power (LADWP) provides electricity throughout the City and many areas of the Owens Valley, serving approximately 4 million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electricity provided by the LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resources Plan, the LADWP has a net dependable generation capacity greater than 7,531 MW.[40] In 2017, the LADWP power system experienced an instantaneous peak demand of 6,432 MW.[41] Approximately 32 percent of LADWP's 2018 electricity purchases were from renewable sources, which is similar to the 31 percent statewide percentage of electricity purchases from renewable sources.[42]

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. As the existing site is used for parking purposes, energy usage would be minimal. It is estimated that existing uses on the Project Site currently consume approximately 251,424 kWh of electricity per year.[43] To provide a conservative analysis of the Project, existing energy usage is considered to be *de minimis.*

(2) Natural Gas

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

Natural gas is provided to the Project Site by the Southern California Gas Company (SoCalGas). SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.8 million customers in more than 500 communities encompassing approximately

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

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

[42] *California Energy Commission, Utility Annual Power Content Labels for 2018, www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure/power-content-label-pcl-copy/annual-power, accessed July 28, 2020.*

[43] *Eyestone Environmental, Energy Calculations for 8th, Grand and Hope Project. See Appendix C of this Draft EIR.*

24,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.[44]

SoCalGas receives gas supplies from several sedimentary basins in the western United States and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies.[45] The traditional, southwestern United States sources of natural gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.[46] Gas supply available to SoCalGas from California sources averaged 323 million cf per day in 2017 (the most recent year for which data are available).[47] SoCalGas supplies natural gas to the Project Site from natural gas service lines located in the Project vicinity. Existing uses on the Project Site do not consume natural gas.[48]

(3) Transportation Energy

According to the U.S. Energy Information Administration, transportation accounts for nearly 40 percent of California's total energy consumption in 2018.[49] In 2018, California consumed 15.6 billion gallons of gasoline and 3.1 billion gallons of diesel fuel.[50,51] Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.[52] 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

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[44] *SoCalGas, Company Profile, www.socalgas.com/about-us/company-profile, accessed July 21, 2020.*

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

[46] *U.S. Energy Information Administration, California State Profile and Energy Estimates, www.eia.gov/state/?sid=CA#tabs-2.*

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

[48] *Eyestone Environmental, Energy Calculations for 8th, Grand and Hope Project. See Appendix C of this Draft EIR.*

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

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

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

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

predicts that the demand for gasoline will continue to decline over the next 10 years, and there will be an increase in the use of alternative fuels.[53] According to CARB's EMFAC Web Database, Los Angeles County on-road transportation sources consumed 4.1 billion gallons of gasoline and 634 million gallons of diesel fuel in 2019.[54]

The existing site is currently developed with a low-rise four level parking structure and a surface parking lot that is entirely paved and devoid of landscaping. This parking structure and surface parking lot do not generate vehicle trips, but are used for commercial parking by businesses in the area.

3. Project Impacts

a. Thresholds of Significance

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

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

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

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

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

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[53] *CEC, 2015 Integrated Energy Policy Report, docketed June 29, 2016, p. 113.*

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

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity-enhancing alterations to existing facilities;

- Whether and when the needed infrastructure was anticipated by adopted plans; and

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

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

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

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

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

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

5. The effects of the project on energy resources;

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

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

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

With regard to Threshold (b), the Project will be evaluated for consistency with adopted energy conservation plans and policies relevant to the Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CalGreen Code, and City building codes.

b. Methodology

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

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

(1) Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control (including supply and conveyance) and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power.[55] Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using CalEEMod.[56] Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was calculated based on data provided in South Coast Air Quality Management District (SCAQMD) construction surveys (i.e., construction activity, horsepower, load factor, and hours of use per day).[57] Although the Project site would use electricity from poles where possible, electricity demand calculations were based on the SCAQMD construction surveys which identifies the use of diesel generators to supply construction sites with electrical power.

In terms of natural gas, construction activities typically do not involve the consumption of natural gas and current plans do not involve use of natural gas powered construction equipment.

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[55] *Construction activities include demolition of the existing site, site preparation, grading, building construction, building finishes, landscaping and paving.*

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

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

Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and delivery and haul truck trips (e.g., the hauling of demolition material to off-site reuse and disposal facilities). Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix B of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of the SCAQMD *CEQA Air Quality Handbook*. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC 2017 model (EMFAC2017). EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Consistent with CalEEMod, construction worker trips were assumed to include 50 percent light duty gasoline auto and 50 percent light duty gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix C of this Draft EIR for detailed calculations.

(2) Operation

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

Energy impacts associated with transportation during operation were also assessed. Daily trip generation used in this analysis was based on the *8th, Grand and Hope Project Transportation Assessment* dated December 2020 (Transportation Assessment), which was prepared by The Mobility Group (Appendix G of this Draft EIR). As discussed therein, the Project daily VMT was calculated using the Los Angeles Department of Transportation (LADOT) VMT Calculator. Pass-by trips were determined based on the Institute of Transportation Engineers trip generation factors for the applicable land uses. The daily Project-related VMT were then input into CalEEMod, which calculated the annual VMT. The resulting annual VMT was used as part of the GHG analysis included in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR. Based on this annual VMT, gasoline and diesel consumption rates were calculated using the county-specific miles per gallon calculated using EMFAC2014. The vehicle fleet mix for vehicles anticipated to visit the Project Site was calculated consistent with the CalEEMod default for Los Angeles County. Supporting calculations are provided in Appendix C of this Draft EIR. These calculations were used to determine if the Project would cause the wasteful, inefficient and/or unnecessary consumption of energy as required by Appendix F guidelines.

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies in 2025 (i.e., the Project buildout year) to determine if these two energy utility companies would be able to meet the Project's energy demands.

c. Project Design Features

The Project would include project design features designed to improve energy efficiency as set forth in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, including Project Design Feature GHG-PDF-1. These measures include, but are not limited to, use of Energy Star labeled products, light-emitting diode lighting.

d. Analysis of Project Impacts

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

(1) Impact Analysis

The following analysis considers the eight factors described in Subsection 3.a (Thresholds of Significance) in order to determine whether Threshold (a) would be exceeded.

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

As discussed above, the Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption (during operation only), and transportation fuels such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (demolition, construction, operations, maintenance and removal activities).[58]

For purposes of this analysis, Project maintenance would include activities such as repair of structures, landscaping and architectural coatings, which could potentially use electricity and petroleum-based fuels. Energy usage related to Project maintenance

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

activities are assumed to be included as part of Project operations. After completion of full or partial construction of the Project, removal activities would include demolition or abandonment of the Project 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

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

As shown in Table IV.B-1 on page IV.B-23, a total of 39,547 kWh of electricity, 123,758 gallons of gasoline, and 199,955 gallons of diesel is estimated to be consumed during Project construction. Project construction is expected to start in 2022 and be completed by 2025.

Electricity

During construction of the Project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electric equipment, and other construction activities necessitating electrical power. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. This would be consistent with suggested measures in the *L.A. CEQA Thresholds Guide* to use electricity from power poles rather than temporary gasoline or diesel powered generators.

As shown in Table IV.B-1, a total of approximately 39,547 kWh of electricity is anticipated to be consumed during all phases of Project construction including demolition. 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

Table IV.B-1
Summary of Energy Use During Project Construction

Fuel Type	Quantity
Electricity	
Water Consumption	5,981 kWh
Lighting, electric equipment, and other construction activities necessitating electrical power[a]	33,566 kWh
Total Electricity	**39,547 kWh**
Gasoline	
On-Road Construction Equipment[b]	123,758 gal
Off-Road Construction Equipment	0 gal
Total Gasoline	**123,758 gal**
Diesel	
On-Road Construction Equipment[b]	109,563 gal
Off-Road Construction Equipment[c]	90,392 gal
Total Diesel	**199,955 gal**

gal = gallons

kWh = kilowatt-hours

Detailed calculations of energy use during project construction are provided in Appendix C of this Draft EIR.

[a] *Electricity usage is based on SCAQMD construction site survey data and typical requirements for power generators. Such electricity demand would be temporary, limited, and would cease upon the completion of construction.*

[b] *On-Road equipment includes worker trips, vendor deliveries and haul trucks. Haul trucks are assumed to be powered by diesel*

[c] *Off-Road equipment includes on-site heavy equipment which are assumed to be powered by diesel.*

Source: Eyestone Environmental, 2020.

construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. In addition, although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (longer than 120 days) providing illumination for the site and staging areas would also comply with applicable Title 24 requirements, which includes limits on the wattage allowed per specific area, which would result in the conservation of energy.[59] As such, the demand for electricity during construction would not cause wasteful, inefficient, and unnecessary use of energy.

The estimated construction electricity usage represents approximately 1.1 percent of the estimated net annual operational demand which, as discussed below, would be within

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

the supply capabilities of LADWP.[60] Moreover, construction electricity usage would replace the existing electricity usage at the Project Site.

Natural Gas

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

Transportation Energy

The petroleum-based fuel use summary provided above in Table IV.B-1 on page IV.B-23 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix C of this Draft EIR. As shown, on- and off-road vehicles would consume an estimated 123,758 gallons of gasoline and approximately 199,955 gallons of diesel fuel throughout the Project's construction (2022–2025). For comparison purposes, the fuel usage during Project construction would represent approximately 0.002 percent of the 2022 (start year of Project construction) annual on-road gasoline-related energy consumption and 0.02 percent of the 2022 annual diesel fuel-related energy consumption in Los Angeles County, as shown in Appendix C of this Draft EIR.

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

Construction Materials

The energy analysis does not include a full life cycle analysis of energy usage that would occur over the production of materials used during the construction of the project or used during the operational life of the project, or the end of life for the materials and

[60] *The percentage is derived by taking the total amount of electricity usage during construction (39,547 kWh) and dividing that number by the total amount of net electricity usage during operation (3,527,684 kWh) to arrive at 1.1 percent.*

processes that would occur as an indirect result of the project. Estimating the energy usage associated with these processes would be too speculative for meaningful consideration, would require analysis beyond the current state-of-the-art in impact assessment, and may lead to a false or misleading level of precision in reporting. Manufacture and transport of materials related to Project construction and operation is expected to be regulated under regulatory energy efficiency requirements. Therefore, it is assumed that energy usage related to construction and operational materials would be consistent with current regulatory requirements regarding energy usage.

(ii) Operation

As discussed in more detail below, during operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in Table IV.B-2 on page IV.B-26, the Project's net new energy demand would be approximately 102,532 gallons of gasoline per year, 20,179 gallons of diesel fuel per year, 3,527,684 kWh of electricity per year, and 4,859,882 cf of natural gas per year.

Electricity

As shown in Table IV.B-2, with compliance with Title 24 standards and applicable CALGreen Code requirements, buildout of the Project would result in a projected net increase in the on-site demand for electricity totaling approximately 3,527,684 kWh per year. In addition to complying with CALGreen Code, the Applicant would also implement GHG-PDF-1 in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would incorporate sustainability features (e.g., Energy Star-labeled products); and Project Design Feature WAT-PDF-1, presented in Section IV.I.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, which states that the Project would incorporate water conservation features, such as high-efficiency toilets with flush volume of 1.1 gallon of water per flush or less, showerheads with a flow rate of 1.5 gallons per minute or less, and drip/subsurface irrigation, among others. Project Design Features GHG-PDF-1 and WAT-PDF-1 would reduce the Project's energy demand and have been incorporated into the calculation of the Project's energy usage. In addition, the Project would be subject to the 2019 Title 24 standards. Residential and nonresidential buildings built in compliance with the 2019 standards will use about 30 to 53 percent less energy than those under the 2016 standards.[61] As CalEEMod is based on 2016 Title 24 standards, this analysis conservatively includes a

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

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

Source	Estimated Energy Demand		
	Project Without PDFs	**Project With PDFs**	**Percent Reduction**
Electricity			
Building	3,179,025 kWh	2,895,390 kWh	-9%
Water[b]	661,095 kWh	528,877 kWh	-20%
EV Chargers[c]	103,418 kWh	103,418 kWh	
Total Electricity[d]	**3,943,537 kWh**	**3,527,684 kWh**	**-11%**
Natural Gas			
Building	5,102,979 cf	4,859,882 cf	-5%
Total Natural Gas[d]	**5,102,979 cf**	**4,859,882 cf**	**-5%**
Transportation (On-Road Vehicles and Off-Road Equipment)			
Gasoline	102,531 gal	102,531 gal	0%
Diesel	20,179 gal	20,179 gal	0%
Total Transportation[e]	**122,710 gal**	**122,710 gal**	**0%**

cf = cubic feet

gal = gallons

kWH = kilowatt-hours

[a] *Detailed calculations are provided in Appendix C of this Draft EIR. Totals may not add up due to rounding. Project energy demand is all net new. Existing site is currently occupied by a surface parking lot and a four-story parking structure, as such to provide a conservative analysis of the Project's impacts, existing energy usage is presumed to be de minimis.*

[b] *Calculations assume compliance with Project Design Feature GHG-PDF-1 provided in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR and Project Design Feature WAT-PDF-1 provided in Section IV.I.1, Utilities and Service System-Water Supply and Infrastructure.*

[c] *Consistent with City Code, the Project would provide at least 30 percent of Code-required parking spaces with the capability of supporting electric vehicle supply equipment (EVSE) and that a minimum of 10 percent of Code-required parking spaces would be further equipped with EV charging stations.*

[d] *Electricity and natural gas estimates assume compliance with applicable 2019 CALGreen requirements and implementation of GHG-PDF-1, in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR.*

[e] *Transportation fuel estimates include project characteristics consistent with the LADOT VMT Calculator. Fuel estimates conservatively do not include reductions in fuel usage associated with implementation of EV charging stations.*

Source: Eyestone Environmental, 2020.

10-percent reduction in the CalEEMod calculated energy use to account for compliance with 2019 Title 24 standards. Future iterations of Title 24 are expected to increase energy efficiency requirements and the Project would be required to comply with the latest Title 24 standards.

LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020. The current sources procured by LADWP include wind, solar, geothermal sources, hydroelectric, and biomass/biowaste. These sources account for 32 percent of LADWP's overall energy mix in 2018, the most recent year for which data are available.[62] This represents the available off-site renewable sources of energy that would meet the Project's energy demand. The use of renewable energy would indirectly reduce use of fossil fuels required for electricity generation (natural gas, coal, oil). While the electricity usage rate for a given land use would not be directly affected by the availability of renewable energy, the consumption of fossil fuels required for electricity generation would be reduced.

In addition, the Project would comply with Section 110.10 of Title 24, which includes mandatory requirements for solar-ready buildings, and, as such, would support and would not preclude the potential future use of on-site renewable energy.

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2025–2026 fiscal year (the Project's buildout year) will be 23,537 GWh of electricity.[63,64] As such, the Project-related net increase in annual electricity consumption of 3,527,684 kWh per year would represent less than 0.02 percent of LADWP's projected sales in 2025.[65] In addition, as previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

Natural Gas

As provided in Table IV.B-2 on page IV.B-26, with compliance with Title 24 standards and applicable CALGreen Code requirements, buildout of the Project is projected to generate a net increase in the on-site demand for natural gas totaling approximately 4,859,882 cf per year. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen Code), the Project would implement project design features to further reduce energy use. Specifically, the Applicant would implement GHG-PDF-1 in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR, which states that the design of new buildings would incorporate sustainability features (e.g., Energy Star—labeled products). As discussed above, the Project would be subject to the 2019

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62 *LADWP 2018 Power Content Label.*

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

64 *LADWP, 2017 Power Strategic Long-Term Resources Plan, Appendix A, Table A-1.*

65 *1 GWh = 1,000,000 kWh*

Title 24 standards. As CalEEMod is based on 2016 Title 24 requirements, this analysis conservatively includes a 10-percent reduction in the CalEEMod calculated energy use to account for compliance with 2019 Title 24 standards. In order to meet the Title 24 energy performance requirement, the Project will include use of efficient water heaters, cooking equipment and heating, ventilation and air conditioning (HVAC) equipment .

As stated above, the Project's estimated net increase in demand for natural gas is 4,859,882 cf per year, or approximately 13,315 cf per day. Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2.45 billion cf/day in 2025 (the Project's buildout year).[66] The Project would account for approximately 0.0005 percent of the 2025 forecasted consumption in SoCalGas' planning area. In addition, as previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. The Project Site is located in a HQTA designated by SCAG, which indicates that the Project Site is an appropriate site for increased density and employment opportunities from a "smart growth," regional planning perspective.[67,68,69] As discussed in Section IV.G, Transportation, of this

[66] *California Gas and Electric Utilities, 2018 California Gas Report, p. 100.*

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

[68] *Smart growth is an approach to development that encourages a mix of building types and uses, diverse housing and transportation options, development within existing neighborhoods, and community engagement. Smart growth includes the following ten principles: mix land uses; take advantage of compact building design; create a range of housing opportunities and choices; create walkable neighborhoods; foster distinctive, attractive communities with a strong sense of place; preserve open space, farmland, natural beauty, and critical environmental areas; strengthen and direct development towards existing communities; provide a variety of transportation choices; make development decisions predictable, fair, and cost effective; and encourage community and stakeholder collaboration in development decisions. Source: U.S. Environmental Protection Agency and the International City/County Management Association, This is Smart Growth, 2014; Smart Growth America, What is smart growth?, https://smartgrowthamerica.org/our-vision/what-is-smart-growth/, accessed July 9, 2020; SCAG, Glossary, "Smart Growth Principles," http://scagrtpscs.net/Pages/Glossary.aspx, accessed July 21, 2020.*

Draft EIR, the Project Site is located approximately two blocks from the Metro's 7th/Metro Center Metro Rail station, which contains the Metro Red, Purple, Blue, and Expo Lines and is considered a hub of the regional rail network. This would provide service within the Project vicinity and would provide employees, residents, and guests with various public transportation opportunities. In accordance with the LAMC, the Project would provide short- and long-term bicycle parking spaces consistent with applicable regulations. Additionally, Project is located within the downtown area of the City of Los Angeles which is a site conducive to promoting walkability due to the proximity of existing commercial uses within the area.

The Project would implement VMT reduction measures to reduce vehicle trips and associated energy usage. Such measures include increasing the density of residential units and jobs in comparison to existing on-site uses, and being located close to major job or residential centers (downtown LA). As such, the Project's siting would lessen transportation fuel consumption through the reduction of VMT, as described above and discussed further in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR. With incorporation of these measures and associated vehicle trips, net transportation-fuel usage would be reduced for both gasoline and diesel fuels.

Previously, trip generation for land uses was calculated based on survey data collected by the Institute of Transportation Engineers (ITE). However, these ITE trip generation rates were based on data collected at suburban, single-use, free standing sites, which may not be representative of urban mixed-use environments. Beginning in 2019 , the USEPA has sponsored a study to collect travel survey data from mixed-use developments in order provide a more representative trip generation rate for multi-use sites. Results of the USEPA survey indicate that trip generation and VMT are affected by factors such as resident and job density, availability of transit, and accessibility of biking and walking paths. Based on these factors, the USEPA has developed equations known as the EPA Mixed-Use Development (MXD) model to calculate trip reductions for multi-use developments.[70] The LADOT VMT Calculator incorporates the USEPA MXD model and accounts for project features such as increased density and proximity to transit, which would reduce VMT and associated fuel usage in comparison to free-standing sites.

As summarized in Table IV.B-2 on page IV.B-26, when accounting for the measures that would be implemented to reduce VMT, the Project's estimated petroleum-based fuel

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[69] *SCAG, 2020–2045 RTP/SCS; Exhibit 3.8: High Quality Transit Areas in the SCAG Region for 2045 Plan, p. 90.*

[70] *Environmental Protection Agency, Mixed-Use Trip Generation Model, www.epa.gov/smartgrowth/mixed-use-trip-generation-model, accessed December 16, 2019.*

usage would result in a net increase of 102,531 gallons of gasoline and 20,179 gallons of diesel per year, or a total of 122,710 gallons of petroleum-based fuels annually.

(iii) Summary of Energy Requirements and Energy Use Efficiencies

As previously discussed, CEQA Guidelines Appendix F recommends quantification of a project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. In addition, per CEQA Guidelines Appendix F, if appropriate, the energy intensiveness of materials may be discussed. The Project's energy requirements were calculated based on the methodology contained in CalEEMod for electricity and natural gas usage. As discussed previously, Project VMT data were calculated using LADOT's VMT calculator which incorporates reduction measures such as increased density and proximity to mass transit. The calculations also took into account energy efficiency measures such as Title 24, CalGreen Code, and vehicle fuel economy standards. Table IV.B-1 on page IV.B-23 and Table IV.B-2 provide a summary of Project construction and operational energy usage, respectively. During Project construction activities, a total of 39,547 kWh of electricity would be consumed along with 323,713 gallons of transportation fuel (gasoline and diesel). During Project operation, a total of 3,527,684 kWh of electricity, 4,859,882 cf of natural gas, and 122,711 gallons of transportation fuel would be consumed on an annual basis. Details are provided in Appendix C of this Draft EIR.

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

(i) Construction

As discussed above, electricity would be intermittently consumed during the conveyance of the water used to control fugitive dust, as well as to provide electricity for temporary lighting and other general construction activities. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 1.1 percent of the estimated net annual operational demand which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.[71] Furthermore, the electricity demand during construction would be somewhat offset with the removal of the existing on-site uses which currently generate a demand for electricity.

[71] *The percentage is derived by taking the total amount of electricity usage during construction (39,547 kWh) and dividing that number by the total amount of net electricity usage during operation (3,527,684 kWh) to arrive at 1.1 percent.*

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no demand generated by construction. Transportation fuel usage during Project construction activities would represent approximately 0.002 percent of gasoline usage and 0.02 percent of diesel usage within Los Angeles County, respectively. As energy consumption during Project construction activities would be relatively negligible, the Project would not affect regional energy consumption in years during the construction period.

(ii) Operation

Based on LADWP's 2017 Power Strategic Long-Term Resources Plan, LADWP forecasts that its total energy sales in the 2025–2026 fiscal year (the Project's buildout year) will be 23,537 GWh of electricity.[72,73] As such, the Project-related net increase in annual electricity consumption of 3,527,684 kWh per year would represent less than 0.002 percent of LADWP's projected sales in 2025.[74] Furthermore, LADWP has confirmed that the Project's electricity demand can be served by the facilities in the Project area.[75] Therefore, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand.

As stated above, the Project's estimated net increase in demand for natural gas is 4,859,882 cf per year, or approximately 13,315 cf per day. Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimated natural gas consumption within SoCalGas' planning area will be approximately 2.45 billion cf/day in 2025 (the Project's buildout year).[76] The Project would account for approximately 0.0005 percent of the 2025 forecasted consumption in SoCalGas' planning area.

At buildout, the Project would result in an increase of 102,532 gallons of gasoline and 20,179 gallons of diesel per year, or a total of 122,711 gallons of petroleum-based fuels consumed per year, as shown in Appendix C of this Draft EIR. Transportation fuel usage during Project operational activities would represent approximately 0.002 percent of gasoline and diesel usage within Los Angeles County.

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

[73] *LADWP, 2017 Power Strategic Long-Term Resources Plan, Appendix A, Table A-1.*

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

[75] *KPFF, 8th and Grand/Hope Utility Infrastructure–Technical Memo. Refer to the Initial Study for the Project (Appendix A of this Draft EIR).*

[76] *California Gas and Electric Utilities, 2018 California Gas Report p. 97.*

In sum, energy consumption during Project operations would be relatively negligible and energy requirements are within LADWP's and SoCalGas' service provision. Project operation would not affect regional energy supplies.

(c) The effects of the project on peak and base period demands for electricity and other forms of energy

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of LADWP's power grid and base load conditions. With regard to peak load conditions, the LADWP power system experienced an all time high peak of 6,432 MW on August 31, 2017.[77] In 2018, the LADWP power system experienced a peak of 6,195 MW on July 6, 2018. The LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2017, the base case peak demand for the power grid was 5,820 MW.[78] Under peak conditions, the Project would consume 684 kW during peak load conditions.[79] In comparison to the LADWP power grid base peak load of 5,820 MW in 2018, the Project would represent approximately 0.01 percent of the LADWP base peak load conditions. In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical demand by the Project.[80] Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid.

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

Although Title 24 requirements typically apply to energy usage for buildings, long-term construction lighting (greater than 120 days) providing illumination for the Project Site and staging areas would also comply with applicable Title 24 requirements (includes limits on the wattage allowed per specific area). In addition, construction equipment would comply with energy efficiency requirements contained in the Federal Energy Independence and Security Act or previous Energy Policy Acts for electrical motors and equipment.[81] Electricity and Natural Gas usage during Project operations presented in Table IV.B-2 on page IV.B-26 would comply with 2019 Title 24 standards and applicable CalGreen and Los Angeles Green Building Code requirements. Therefore, Project construction and

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

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

[79] *Eyestone Environmental, Energy Calculations for 8th, Grand and Hope Project, See Appendix C of this Draft EIR.*

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

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

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

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

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

(e) Effects of the Project on Energy Resources

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

Natural gas supplied to Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California region are obtained from locations throughout the western United States as well as Canada.[82] According to the U.S. Energy Information Administration (EIA), the United States currently has over 80 years of natural gas reserves based on 2015 consumption.[83] Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

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

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

[83] *U.S. Energy Information Administration, Frequently Asked Questions, www.eia.gov/tools/faqs/faq.php?id=58&t=8, accessed November 18, 2019.*

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

Transportation fuels (gasoline and diesel) are produced from crude oil which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.[84] As discussed previously, the Project transportation fuel consumption during operations would represent 0.002 percent of the gasoline and diesel usage within Los Angeles County. The Project would also comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards which are designed to reduce GHG emissions, but would also result in fuel savings in addition to compliance with CAFE standards. The Project would also include provisions to support alternative modes of transportation by providing for bicycle parking spaces and preferred parking for fuel efficient vehicles, resulting in a reduction of transportation fuel usage. In addition, the Project is located within an HQTA, which would encourage use of mass transit, further reducing transportation fuel usage during Project operations. Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in Subsection 2.a, Regulatory Framework, one of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. However, as of September 2018, SB 100 was signed, which would require retail sellers of electric services to increase procurement from eligible renewable energy resources to 50 percent renewable resources target by December 31, 2026, and 60 percent by December 31, 2030. Accordingly, LADWP is required to procure at least 60 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources account for 32 percent of LADWP's overall energy mix in 2018, the most recent year for which data are available.[85] This represents the available off-site renewable sources of energy that would meet the Project's energy demand. The Project's use of renewable energy would indirectly reduce use of fuels required for electricity generation (natural gas, coal, oil). While the Project's electricity usage rate would not be directly affected by the availability of renewable energy, the

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[84] *BP Global, Oil Reserves, www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html, accessed November 18, 2019.*

[85] *California Energy Commission, Utility Annual Power Content Labels for 2018, www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure, accessed July 28, 2020.*

Project's usage of renewable energy procured by LADWP would indirectly avoid consumption of fossil fuels.

With regard to on-site renewable energy sources, the Project would also comply with Title 24 requirements for "Solar Ready Buildings" which requires a certain area of rooftop to be set aside for installation of solar panels. However, due to the Project Site's location, other on-site renewable energy sources would not be feasible to install on-site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, methane, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Furthermore, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.[86]

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

The Project's high density design and proximity to retail and employment uses would allow for more residents to live closer to shopping and employment areas, reducing the vehicle miles travelled. The design, which includes dedicated bicycle parking facilities within the Project Site and on the sidewalks of Hope Street and Grand Avenue, also encourages non-automotive forms of transportation such as walking or biking to nearby destinations. In addition, the Project Site is located approximately two blocks from the Metro's 7th/Metro Center Metro Rail station, which contains the Metro Red, Purple, Blue, and Expo Lines and is considered a hub of the regional rail network. This would result in a reduction in trips due to the accessibility of mass transit. With the reduction in trips, the Project results in a 61 percent reduction in VMT compared to a Project without Reduction Features, with a corresponding reduction in the Project's petroleum-based fuel usage.[87,88] Therefore, the Project would encourage the use of efficient transportation alternatives.

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

[87] *The Project without Reduction Features scenario does not account for energy efficiency measures that would exceed the Title 24 Building Standards Code or trip reductions.*

[88] *VMT reduction calculations provided in Appendix B (Air Quality and Greenhouse Gas), CalEEMod Vehicle Trip Input Calculations, p. C-63.*

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

The current City of Los Angeles Green Building Code requires compliance with the CalGreen Code and California's Building Energy Efficiency Standards (Title 24). In addition to compliance with the City's Green Building Code, the Project would comply with 2019 Title 24 standards. Residential and nonresidential buildings built in compliance with the 2019 standards will use about 30 to 53 percent less energy than those under the 2016 standards.[89] In addition, Project Design Feature GHG-PDF-1 would incorporate sustainability features beyond 2019 Title 24 requirements such as use of Energy Star appliances, LED lighting and fenestration designed for solar orientation. Therefore, the Project would incorporate measures that are above and beyond current State and City energy conservation requirements.

Project Design Feature WAT-PDF-1 in Section IV.I.1, Utilities and Service Systems—Water Supply and Infrastructure, of this Draft EIR, states that the Project would implement water conservation features, including high-efficiency toilets with flush volume of 1.1 gallon of water per flush or less, showerheads with a flow rate of 1.5 gallons per minute or less, and drip/subsurface irrigation, among others. A reduction in water usage would in turn reduce the amount of electricity used for water conveyance. Therefore, the Project would incorporate measures that are above and beyond current State and City energy conservation requirements.

The City has also adopted several plans and regulations to promote the reduction, reuse, recycling, and conversion of solid waste going to disposal systems. These regulations include the City of Los Angeles Solid Waste Management Policy Plan, the RENEW LA Plan, the City of Los Angeles Space Allocation Ordinance (Ordinance No. 171,687), and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. As discussed in the Initial Study included as Appendix A of this Draft EIR, the Project would be consistent with the applicable regulations associated with solid waste. Specifically, the Project would provide adequate storage areas in accordance with Ordinance No. 171,687, which requires that development projects include an on-site recycling area or room of specified size.[90] The Project would also comply with State and City waste diversion goals, as applicable, by

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

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

providing clearly marked, source-sorted receptacles to facilitate recycling. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

Based on the above, with compliance with State and local energy efficiency standards, the Project would meet and/or exceed applicable energy conservation policies and regulations.

(h) Whether the Project conflicts with adopted energy conservation plans

The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the CALGreen Code and California's Building Energy Efficiency Standards, which have been incorporated into the City's Green Building Code.

With regard to transportation uses, the Project design would reduce vehicle miles travelled within the region and encourage use of alternative modes of transportation. The Project would be consistent with regional planning strategies that address energy conservation. As discussed above and in Section IV.D, Land Use and Planning, of this Draft EIR, SCAG's 2020–2045 RTP/SCS focuses on creating livable communities with an emphasis on sustainability and integrated planning, and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. As part of the approach, the 2020–2045 RTP/SCS focuses on reducing fossil fuel use by decreasing VMT, reducing building energy use, and increasing use of renewable sources. The Project would be consistent with the energy efficiency policies emphasized in the 2020–2045 RTP/SCS. Most notably, the Project would be a mixed-use residential development with 580 residential units and up to 7,499 square feet of commercial uses located in an area characterized by a high degree of pedestrian activity. The 2020–2045 RTP/SCS also identifies High-Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.[91] Local jurisdictions are encouraged to focus housing and employment growth within HQTAs to reduce VMT. The Project Site is located within a HQTA as designated by the 2020–2045 RTP/SCS.[92] The Project would provide greater proximity to neighborhood services, jobs, and residences and would be well-served by existing public transportation, including the

[91] *SCAG, 2020–2045 RTP/SCS, p. 23.*

[92] *SCAG, 2020–2045 RTP/SCS, Exhibit 3.8: High Quality Transit Areas in the SCAG Region for 2045 Plan, p. 90.*

Metro's 7th/Metro Center Metro Rail station, as evidenced by the Project Site's location within a designated HQTA.[93]

The introduction of new housing and job opportunities within a HQTA, as proposed by the Project, is consistent with policies in the 2020–2045 RTP/SCS related to locating new housing and jobs near transit. The 2020–2045 RTP/SCS is expected to fulfill and exceed SB 375 compliance with respect to meeting the state's GHG emission reduction goals.

As discussed above, the Project results in a 61 percent reduction in VMT compared to a Project without Reduction Features when taking into account features such as high density design, walkability and access to mass transit.[94] With this reduction in VMT, the Project would be consistent with goals of the 2020–2045 RTP/SCS and SB 375 requirements.

In addition, the Project would comply with state energy efficiency requirements and would use electricity from LADWP, which has a current renewable energy mix of 32 percent. All of these features would serve to reduce the consumption of electricity, natural gas, and transportation fuel. Based on the above, the Project would not conflict with adopted energy conservation plans.

(i) Conclusion Regarding Significance Threshold a

As demonstrated in the analysis above, the Project would not result in potentially significant environmental impacts due to wasteful, inefficient, and unnecessary consumption of energy resources during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or capacity. The Project's energy usage during peak and base periods would also be consistent with electricity and natural gas future projections for the region. As discussed previously, gasoline fuel usage for the region is expected to decline over the next 10 years. Transportation fuel supply is not expected to decrease significantly over this same period

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[93] *SCAG, 2020–2045 RTP/SCS, Exhibit 3.8: High Quality Transit Areas in the SCAG Region for 2045 Plan, p. 90; The City's ZIMAS identifies the Project Site as also located in Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."*

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

and supplies would be sufficient to meet Project demand. Electricity generation capacity and supplies of natural gas and transportation fuels would also be sufficient to meet the needs of Project-related construction and operations. During operations, the Project would comply with existing energy efficiency requirements such as CalGreen Code as well as include energy conservation measures beyond requirements. **In summary, the Project's energy demands would comply with existing energy efficiency standards and would not cause wasteful, inefficient, or unnecessary use of energy. Therefore, Project impacts related to energy use under Threshold (a) would be less than significant during construction and operation.**

(2) Mitigation Measures

Project-level impacts with related to energy use would be less than significant. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

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

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

(1) Impact Analysis

As discussed in Subsection 3.d.(1)(a)(h) above, the energy conservation policies and plans relevant to the Project include the California Title 24 energy standards, the 2019 CALGreen Code, and the City of Los Angeles Green Building Code. As these conservation policies are mandatory under the City of LA Building Code, the Project would not conflict with applicable plans for renewable energy or energy efficiency.

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

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

(2) Mitigation Measures

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

(3) Level of Significance After Mitigation

Project-level impacts related to conflicts with plans 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 impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. Based on the information presented in Section III, Environmental Setting, of this Draft EIR, there are 74 related projects located within the vicinity of the Project Site. The geographic context for the cumulative analysis of electricity is LADWP's service area and the geographic context for the cumulative analysis of natural gas is SoCalGas' service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the Project in the context of County-wide consumption. Growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy.

(i) Electricity

Although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures making the Project more energy-efficient, and would be consistent with growth expectations for LADWP's service area. The Project also would incorporate energy efficiency measures to make the Project comply with the 2019 Title 24 standards. Residential and nonresidential buildings built in compliance with the 2019 standards will

use about 30 to 53 percent less energy than those under the 2016 standards.[95] Furthermore, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the CALGreen Code and State energy standards under Title 24, and incorporate mitigation measures, as necessary.

Additionally, as discussed above, LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020. The current sources of renewable energy procured by LADWP include wind, solar, and geothermal sources. These sources accounted for 32 percent of LADWP's overall energy mix in 2018, the most recent year for which data are available.[96] 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 within LADWP's service area would comply with energy conservation plans and efficiency standards required to ensure that energy is used efficiently. **As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.**

(ii) Natural Gas

Although Project operations would result in the use of natural gas resources, which could limit future availability, the use of such resources, would be reduced by measures rendering the Project more energy-efficient, and would be consistent with regional and local growth expectations for SoCalGas' service area. The Project also would incorporate energy efficiency measures to make the Project capable of exceeding Title 24 requirements, as required by GHG-PDF-1 in Section IV.C, Greenhouse Gas Emissions, of this Draft EIR. Furthermore, future development projects within SoCalGas' service area would be expected to incorporate energy conservation features, comply with applicable regulations including the CALGreen Code and State energy standards under Title 24, and incorporate mitigation measures, as necessary. **As such, cumulative impacts related to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and, thus, would be less than significant.**

(iii) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. As

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

[96] *California Energy Commission, Utility Annual Power Content Labels for 2018, www.energy.ca.gov/pcl/labels/, accessed July 28, 2020.*

described above, at buildout, the Project would result in an increase of 102,532 gallons of gasoline and 20,179 gallons of diesel per year, or a total of 122,711 gallons of petroleum-based fuels consumed per year, as shown in Appendix C of this Draft EIR.

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

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled which would reduce reliance on petroleum fuels. According to the California Department of Tax and Fee Administration, total statewide gasoline consumption has increased by 4 percent from 2010 to 2018.[97] However, this increase is mainly due to population increases as the per capita gasoline consumption is showing a downward trend.[98] The CEC also predicts that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions.

Furthermore, as described above, the Project would be consistent with the energy efficiency policies emphasized by the 2020–2045 RTP/SCS. Specifically, the Project would be a mixed-use residential development located in an area that is characterized by a high degree of pedestrian activity. The Project would provide greater proximity to neighborhood services, and would be well-served by existing public transportation, including Metro's 7th/Metro Center Metro Rail station, which contains the Metro Red, Purple, Blue, and Expo Lines and is considered a hub of the regional rail network. The Project also would introduce new housing and job opportunities (generated from the proposed 7,499 square feet of commercial uses) within a HQTA, which is consistent with numerous policies in the

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[97] *California Department of Tax and Fee Administration, Fuel Taxes Statistics & Reports, www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm, accessed June 11, 2019.*

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

2020–2045 RTP/SCS related to locating new jobs near transit.[99] Although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2045, the 2020–2045 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2045.[100] It is anticipated that in future years, SB 375 would have more stringent reduction targets. Implementation of the 2020–2045 RTP/SCS would result in an estimated 19-percent decrease in per capita GHG emissions by 2035. Implementation of the 2020–2045 RTP/SCS is expected to fulfill and exceed the region's obligations under SB 375 with respect to meeting the State's GHG emission reduction goals. In addition, the Project would further reduce VMT through such measures as transit accessibility as estimated by the VMT Calculator, which would be consistent with the goals and land use growth pattern in the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS.

Although the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS is intended to reduce GHG emissions, the reduction in VMT would also result in reduced transportation fuel consumption. By its very nature, the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects. In addition, it is assumed that related projects in the Project Site vicinity would reduce VMT, consistent with the goals of the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS. **Therefore, based on the above, and as the Project is consistent with the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS, its contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of transportation fuel would not be cumulatively considerable and, thus, would be less than significant.**

(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 fuel) 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, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy impacts under Threshold (a) are concluded to be less than significant.

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[99] *SCAG, 2020–2045 RTP/SCS, Exhibit 3.8: High Quality Transit Areas in the SCAG Region for 2045 Plan, p. 90.*

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

(b) Consistency with State or Local Plans

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

Furthermore, as described above, the Project would be consistent with the policies emphasized by the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS. The Project is an infill development near transit within an existing urbanized area that would concentrate new residential uses within an HQTA, thus reducing VMT. The Project would also provide up to 7,499 square feet of commercial uses located near public transit which would result in a VMT reduction. As discussed previously, the Project results in a 61% reduction in VMT compared to a Project without Reduction Features when taking into account features such as high density design, walkability and access to mass transit. This reduction in VMT is substantially better that the goals of the 2020–2045 RTP/SCS with an estimated 19-percent decrease in per capita GHG emissions from passenger vehicles by 2035. Therefore, the Project is consistent with the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS, and its contribution to cumulative impacts with regard to consistency with energy conservation plans would not be cumulatively considerable, and thus, would be less than significant.

(2) Mitigation Measures

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

(3) Level of Significance after Mitigation

Cumulative impacts related to energy use and conflicts with State or local plans were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact levels remains less than significant.