5.6 ENERGY

This section evaluates the potential for energy-related impacts associated with the proposed project and ways in which it would reduce unnecessary energy consumption, consistent with the suggestions in Appendix F of the CEQA Guidelines. Energy service providers to the site include Southern California Edison (SCE) for electrical service and Southern California Gas Company (SoCalGas) for natural gas.

5.6.1 Environmental Setting

Section 21100(b)(3) of CEQA requires that an EIR include a detailed statement setting forth mitigation measures proposed to minimize significant effects on the environment, including but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the State CEQA Guidelines states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the project description, environmental setting, and impact analysis portions of technical sections as well as through mitigation measures and alternatives.

In accordance with Appendices F and G of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the proposed project. This section represents a summary of the proposed project's anticipated energy needs, impacts, and conservation measures. Other aspects of the proposed project's energy implications are discussed elsewhere in this EIR, including Chapter 3, *Project Description*, and Sections 5.3, *Air Quality*; 5.8, *Greenhouse Gas Emissions*; and 5.17, *Transportation.*

5.6.1.1 REGULATORY BACKGROUND

Federal Regulations

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of US crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (mpg) for model year 2025. However, on March 30, 2020, the US Environmental Protection Agency (EPA) finalized an updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021–2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 mpg for model year 2026 vehicles (Federal Register 2020).

On January 20, 2021, President Biden issued Executive Order 13990 (EO 13990), which directs the EPA to reconsider SAFE for the purpose of rescinding the rule. The reconsideration process is ongoing with a public hearing on June 2, 2021, which also started the public comment period that ended July 6, 2021. On August 5, 2021, the National Highway Traffic Safety Administration announced new proposed fuel standards in response to EO 13990. Fuel efficiency under the standards proposed would increase 8 percent annually for model years 2024 to 2026 and increase estimate fleetwide average by 12 mpg for model year 2026 relative to model year 2021 (NHTSA 2021).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The Act set increased CAFE standards; the Renewable Fuel Standard; appliance energy efficiency standards; building energy efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy), carbon capture, and sequestration (USEPA 2022).

State Regulations

Warren-Alquist Act

Established in 1974, the Warren-Alquist Act created the California Energy Commission (CEC) in response to the energy crisis of the early 1970s and the state's unsustainable growing demand for energy resources. The CEC's core responsibilities include advancing State energy policy, encouraging energy efficiency, certifying thermal power plants, investing in energy innovation, developing renewable energy, transforming transportation, and preparing for energy emergencies. The Warren-Alquist Act is updated annually to address current energy needs and issues, and its latest edition was in January 2022.

Renewables Portfolio Standard

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08

The California Renewables Portfolio Standard (RPS) Program was established in 2002 under SB 1078 (Sher) and 107 (Simitian). The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). The California Public Utilities Commission is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the State. For year 2020, the three largest retail energy utilities provided an average of 43 percent of its supplies from renewable energy sources. Community choice aggregators provided an average of 41 percent of its supplies from renewable sources (CPUC 2021).

Senate Bill 350

Senate Bill 350 (de Leon), was signed into law September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirements. Under SB 100, the RPS for public-owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Appliance Efficiency Regulations

California's Appliance Efficiency Regulations contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California (California Code of Regulations [CCR] Title 20, Parts 1600–1608). These standards are updated regularly to allow consideration of new energy efficiency technologies and methods (CEC 2017).

Title 24, Part 6, Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (24 CCR Part 6). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, went into effect starting January 1, 2020.

The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic (PV) systems for single-family homes and multifamily buildings of three stories and less (CBSC 2019a). The 2019 standards focus on four key areas: 1) smart residential PV systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings are generally 30 percent more energy efficient compared to the 2016 standards, and single-family homes are generally 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar PV system, single-family homes will generally use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

Furthermore, on August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards, which were approved by the California Building Standards Commission in December 2021. The 2022 standards become effective and replace the existing 2019 standards on January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).

Title 24, Part 11, Green Building Standards

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the governor. The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2019. The 2019 standards became effective on January 1, 2020.

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code allows the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency (CBSC 2019b).

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under *Federal*, above). In January 2012, CARB approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions (CARB 2017).

Executive Order N-79-20

On September 23, 2020, Executive Order N-79-20 was issued, which sets a time frame for the transition to zero-emissions (ZE) passenger vehicles and trucks in addition to off-road equipment. It directs CARB to develop and propose the following:

- Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs (zero-emission vehicles) sold in the California toward the target of 100 percent of in-state sales by 2035.
- Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035.

Strategies to achieve 100 percent zero emissions from all off-road vehicles and equipment operations in California by 2035, in cooperation with other State agencies, the EPA, and local air districts.

Local

City of Brea Sustainability Plan

The City of Brea approved the City of Brea Sustainability Plan: Leadership in Energy Efficiency (Sustainability Plan) in fall 2012. The plan presents resource efficiency goals, policies, and implementation steps to save energy, water, and other resources while aligning the City of Brea for AB 32 compliance (Brea 2012). The Sustainability Plan is based in part on the City's 2012 Greenhouse Gas Inventory results, which present data for a 2010 baseline year, and on the Energy Action Plan prepared for the City in conjunction with Southern California Edison and the Energy Coalition.

Overall, the Sustainability Plan focuses on creating a sustainable future for the City and offers goals and policies that address energy efficiency and conservation for the residential, business, building, transportation, municipal, hospitality, and education sectors. It includes 88 measures that are divided over three implementation phases. Phase I, intended to be implemented between 2013 and 2014, consisted of 26 total measures that relied on ordinances, public education, utility programs, financing, and public/private partnerships. Phase II includes 46 measures implemented between 2015 and 2017, and Phase III includes 16 measures carried out between 2018 and 2020. In general, the primary mechanism in increasing building energy efficiency and the installation of renewable energy systems is through private and public partnerships to leverage offsetting the costs related to building upgrades and retrofits.

5.6.1.2 EXISTING CONDITIONS

Electricity

The project site is in SCE's service area, which spans much of southern California—from Orange and Riverside counties in the south to Santa Barbara County in the west to Mono County in the north (CEC 2022a). Total

electricity consumption in SCE's service area) was 103,597 gigawatt-hours in 2020 (CEC 2022c).[1] Sources of electricity sold by SCE in 2020, the latest year for which data are available, were:

- 30.9 percent renewable, consisting mostly of solar and wind
- 3.3 percent large hydroelectric
- 15.2 percent natural gas
- 8.4 percent nuclear
- 0.3 percent other
- 42.0 percent unspecified sources—that is, not traceable to specific sources (CEC 2022d)[2]

Gas

SoCalGas provides gas service in the City of Brea and has facilities throughout the city, including the proposed project site. The service area of SoCalGas spans much of the southern half of California, from Imperial County in the southeast to San Luis Obispo County in the northwest to part of Fresno County in the north to Riverside County and most of San Bernardino County in the east (CEC 2022b). Total natural gas consumption in SoCalGas's service area was 691,096 million cubic feet for 2020 (CEC 2022e).

5.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

E-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

E-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

5.6.3 Plans, Programs, and Policies

Regulatory Requirements

PPP E-1 New buildings are required to achieve the current California Building Energy Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2019 Building Energy Efficiency Standards were effective on January 1, 2020, and the 2022 Building Energy Efficiency Standards will become effective January 1, 2023.

PPP E-2 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) requirement to provide bicycle parking for new nonresidential buildings, or meet

[1] One gigawatt-hour is equivalent to one million kilowatt-hours.
[2] The electricity sources listed reflect changes after the 2013 closure of the San Onofre Nuclear Generating Station, which is owned by SCE.

local bicycle parking ordinances, whichever is stricter (CALGreen Sections 5.106.4.1, 14.106.4.1, and 5.106.4.1.2).

PPP E-3 California's Green Building Standards Code (CALGreen) requires the recycling and/or salvaging for reuse at minimum of 65 percent of the nonhazardous construction and demolition waste generated during most "new construction" projects (CALGreen Sections 4.408 and 5.408). Construction contractors are required to submit a construction waste management plan that identifies the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project, or salvaged for future use or sale and the amount (by weight or volume).

PPP E-4 Construction activities are required to adhere to Title 13 California Code of Regulations Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less.

PPP E-5 New buildings are required to adhere to the California Green Building Standards Code and Water Efficient Landscape Ordinance requirements to increase water efficiency and reduce urban per capita water demand.

5.6.4 Environmental Impacts

5.6.4.1 METHODOLOGY

Based on CEQA Guidelines Appendix F, Energy Conservation, in order to ensure energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential impacts of proposed projects, with particular emphasis on avoiding or reducing wasteful, unnecessary, or inefficient use of energy resources. Environmental effects may include the proposed project's energy requirements and its energy use efficiencies by amount and fuel type during demolition, construction, and operation; the effects of the proposed project on local and regional energy supplies; the effects of the proposed project on peak and base period demands for electricity and other forms of energy; the degree to which the proposed project complies with existing energy standards; the effects of the proposed project on energy resources; and the proposed project's projected transportation energy use requirements and its overall use of efficient transportation alternatives, if applicable. The provided energy and fuel usage information provided in this section are based on the following:

- **Building Energy.** CalEEMod default electricity and natural gas rates, which are based on the 2019 Building Energy Efficiency Standards, are used to quantify the electricity and natural gas usage associated with building energy that would be generated by land uses accommodated under the proposed project.
- **On-Road Vehicle Fuel Usage.** Fuel usage associated with operation-related vehicle trips in addition to construction-related vehicle trips (i.e., worker and vendor trips) are based on fuel usage data obtained from EMFAC2021, Version 1.0.1, and on vehicle trip generation and vehicle miles traveled data provided by Linscott, Law and Greenspan, Engineers (see Appendix C).

- **Off-Road Equipment Fuel Usage.** Fuel usage for construction-related off-road equipment is based on fuel usage data from OFFROAD2021, version 1.0.1, and on the equipment mix and operations anticipated for the proposed project (see Table 5.3-10, *Construction Activities, Phasing, and Equipment*, for details regarding the anticipated construction schedule and equipment).

5.6.4.2 IMPACT ANALYSIS

The following impact analysis addresses the thresholds of significance; the applicable thresholds are identified in brackets after the impact statement.

Impact 5.6-1: The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. [Threshold E-1])

Short-Term Construction Impacts

Construction of the proposed project would create temporary increased demands for electricity and vehicle fuels compared to existing conditions and would result in short-term transportation-related energy use. Energy consumption for the three phases of development and remediation (2023 through 2025) was calculated using fuel usage data from EMFAC2021, v. 1.0.1., and OFFROAD2021, v. 1.0.1, and the results are shown in Table 5.6-1, *Construction-Related Fuel Usage*.

Table 5.6-1 Construction-Related Fuel Usage

Project Component	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
Construction Worker Commute	7,463,437	263,515	14,377	382	523,904	193,504
Construction Vendor Trips	107,249	20,501	747,888	103,149	0	0
Construction Soil Haul Trips	0	0	334,275	55,688	0	0
Construction Off-Road Equipment	N/A	61,124	N/A	505,194	N/A	0
Total	**7,570,686**	**345,140**	**1,096,540**	**664,413**	**523,904**	**193,504**

Source: CalEEMod v.2020.4.0; EMFAC2021 v.1.0.1; OFFROAD2021 v.1.0.1.
Notes: VMT=vehicle miles traveled; kWh=kilowatt hour

Electrical Energy

Construction activities associated with the land uses accommodated under the proposed project would require electricity use to power the construction equipment. The electricity use during construction would vary during different phases of construction, where the majority of construction equipment during demolition and grading would be gas powered or diesel powered, and the later construction phases would require electricity-powered equipment for interior construction and architectural coatings. Overall, the use of electricity would be temporary in nature and would fluctuate according to the phase of construction. Additionally, it is anticipated that the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities.

Therefore, project-related construction activities would not result in wasteful or unnecessary electricity demands, and impacts would be less than significant.

Natural Gas Energy

It is not anticipated that construction equipment used for the proposed project would be powered by natural gas, and no natural gas demand is anticipated during construction. Therefore, no impact is anticipated with respect to natural gas usage.

Liquid Fuels and Transportation Energy

Transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy used during construction of individual projects accommodated under the proposed project would come from the transport and use of construction equipment, delivery vehicles, haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would cease upon completion of project construction. It is anticipated that the majority of off-road construction equipment, such as that used during grading activities, would be gas or diesel powered. In addition, all use of construction equipment would cease upon completion of project construction. Thus, impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure.

To limit wasteful and unnecessary energy consumption, the construction contractors would minimize nonessential idling of construction equipment during construction in accordance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9. In addition, it is anticipated that electricity would be available for use during construction from existing power lines and connections, which could minimize or avoid the use of generators, which are less efficient. Furthermore, construction trips would not result in unnecessary use of energy since the proposed site is centrally located and is served by numerous regional freeway systems (e.g., State Routes 142, 90, and 57) that provide the most direct and shortest routes from various areas of the region. Overall, it is expected that construction fuel associated with land use developments accommodated under the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects. Therefore, impacts would be less than significant with respect to transportation energy.

Long-Term Impacts During Operation

Operation of the proposed project would create additional demands for electricity and natural gas compared to existing conditions and would result in increased transportation energy use. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, use of on-site equipment and appliances; and lighting.

Electrical Energy

Operation of the existing facility consumes electricity for various purposes, including but not limited to heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; lighting; and use of on-site

equipment and appliances. The proposed electricity consumption for the proposed single-family detached homes, townhouses and condominiums, and associated parking are shown in Table 5.6-2, *Operation-Related Electricity Consumption*.

Table 5.6-2 Operation-Related Electricity Consumption

Land Use	Electricity (kWh/year)[1]
Single-Family Detached	3,518,170
Condo/Townhouse	3,141,010
Parking Lot	22,680
Total	**6,681,830**

Source: See Appendix C.
Note: kWh=kilowatt-hour

Electrical service to the proposed project would be provided by SCE through connections to existing off-site electrical lines and new on-site infrastructure. As shown in the table, electricity use associated with the proposed project would total 6,681,830 kilowatt-hours per year. While the proposed project would increase energy demand at the site compared to existing conditions, it would be required to comply with the applicable Building Energy Efficiency Standards and CALGreen. Because the proposed project would comply with these regulations, it would not result in wasteful or unnecessary electricity demands. Overall, homes would have solar panels, EnergyStar appliances, and energy-efficient HVAC systems and lighting fixtures. Furthermore, per the design guidelines of the proposed project, buildings would use passive design strategies such as daylighting, natural sources of heating and cooling, operable windows, shading on south-facing windows, ceiling fans, and well-designed buildings with high-U values to minimize energy demand needed to heat and cool a building. Therefore, the proposed project would not result in a significant impact related to electricity.

Natural Gas Energy

The natural gas consumption associated with the proposed project is shown in Table 5.6-3, *Operation-Related Natural Gas Consumption*. As seen in the table, natural gas demand would total 26,432,500 kilo-British thermal units per year with the proposed project due to consumption by the residential units. Because the proposed project would be built to meet the Building Energy Efficiency Standards, it would not result in wasteful or unnecessary natural gas demands. As stated above, the proposed homes would incorporate passive design strategies to minimize heating needs in addition to having high-efficiency water heaters. Therefore, operation of the proposed project would result in less than significant impacts with respect to natural gas usage.

Table 5.6-3 Operation-Related Natural Gas Consumption

Land Use	Natural Gas (kBTU/year)[1]
Single-Family Detached	12,779,000
Condo/Townhouse	13,653,500
Total	**26,432,500**

Source: See Appendix C.
Note: kBTU=kilo-British thermal units.

Transportation Energy

The proposed project would result in the consumption of transportation energy during operations from the use of motor vehicles. Because the efficiency of the motor vehicles in use with the proposed project is unknown—such as the average miles per gallon—estimates of transportation energy use are based on the overall vehicle miles traveled (VMT) and related transportation energy use. The project-related VMT would primarily come from future residents. Based on the numbers shown in Table 5.6-4, *Operation-Related Fuel Usage*, the annual VMT for the proposed project is estimated to be 32,322,184 miles per year. However, the proposed project would involve the construction of a master planned community that would provide more housing opportunities in the city. The proposed project would include design features such as bicycle storage facilities, physical linkages between land uses, and access to public and common use spaces. These features would promote walking or bicycling in the community, thereby minimizing VMT. Furthermore, because the project would be in an urbanized area with nearby amenities and employment opportunities, it would contribute to reducing the VMT between residential and service needs. These features and aspects of the proposed project would contribute to minimizing VMT and transportation-related fuel usage. Additionally, as discussed under Impact 5.17-2, the project-generated VMT per service population would be below the General Plan Buildout VMT per population threshold and, overall, the proposed project would result in less than significant VMT impacts. Thus, it is expected that operation-related fuel usage associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects. Therefore, impacts would be less than significant with respect to operation-related fuel usage.

Table 5.6-4 Operation-Related Fuel Usage

Vehicle Type	Gas		Diesel		CNG		Electricity	
	VMT/year	Gallons/year	VMT/year	Gallons/year	VMT/year	Gallons/year	VMT/year	kWh/year
On-Road Vehicles	30,212,450	973,298	671,210	26,506	5,113	1,324	729,459	234,154

Source: EMFAC2021 v.1.0.1.

Level of Significance Before Mitigation: Less than significant impact.

Impact 5.6-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2])

The following evaluates consistency of the proposed project with California's RPS program and the energy-related goals and objectives of the City of Brea Sustainability Plan.

California Renewables Portfolio Standard Program

The state's electricity grid is transitioning to renewable energy under California's RPS Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The RPS goals have been updated since adoption of SB 1078 in 2002. In general, California has RPS requirements of 33 percent renewable energy by 2020 (SB X1-2), 44 percent by 2024, 50 by 2026, 52 percent by 2027, 60 percent by 2030, and 100 percent by 2045. The RPS requirements established under SB 100 are also applicable to publicly owned utilities. The statewide RPS requirements do not directly apply to individual development

projects, but to utilities and energy providers such as SCE, whose compliance with RPS requirements would contribute to the state objective of transitioning to renewable energy. The residential land uses accommodated under the proposed project would comply with the current and future iterations of the Building Energy Efficiency Standards and CALGreen. Under the 2019 Building Energy Efficiency Standards, future single-family residences and multifamily buildings of three stories and less in the proposed Specific Plan area would be required to install solar PV systems. Furthermore, the design guidelines of the proposed Specific Plan include consideration of building siting and orientation in addition to roof plans to maximize PV systems. Therefore, implementation of the proposed project would not conflict or obstruct implementation of California's RPS Program, and no impact would occur.

City of Brea Sustainability Plan

The Sustainability Plan includes goals and measure that focus on increasing energy efficiency and renewable sources of energy. While most of the policies apply specifically to existing structures, workplace energy efficiency, government operations, or public awareness measures, the proposed project is generally consistent with the overall objective of the Sustainability Plan to increase energy efficiency and renewable energy. As stated, homes would have solar panels, EnergyStar appliances, and energy-efficient HVAC systems and lighting fixtures. Also, the design guidelines of the proposed Specific Plan include consideration of building siting and orientation in addition to roof plans to maximize PV systems. According to the design guidelines of the proposed project, buildings would use passive design strategies such as daylighting, natural sources of heating and cooling, operable windows, shading on south-facing windows, ceiling fans, and well-designed buildings with high-U values to minimize energy demand needed to heat and cool a building. Therefore, the proposed project would not interfere with implementation of the City's Sustainability Plan, and no impact would occur.

Level of Significance Before Mitigation: No impact.

5.6.5 Cumulative Impacts

The areas considered for cumulative impacts to electricity and natural gas supplies are the service areas of SCE and SoCalGas, respectively, described above in Section 5.6.1. Other projects would generate increased electricity and natural gas demands. However, all projects within the SCE and SoCalGas service areas would be required to comply with the Building Energy Efficiency Standards and CALGreen, which would contribute to minimizing wasteful energy consumption. Therefore, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

5.6.6 Level of Significance Before Mitigation

Upon implementation of the plans, programs, and policies, following impacts would be less than significant: 5.6-1 and 5.6-2.

5.6.7 Mitigation Measures

No mitigation measures are necessary because there were no significant impacts identified under the applicable thresholds.

5.6.8 Level of Significance After Mitigation

Because no mitigation measures are required, impacts are the same as described in Section 5.6.6.

5.6.9 References

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