

## 5. Environmental Analysis

### 5.5 ENERGY

This section evaluates the potential for energy-related impacts associated with the project and ways in which the project 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. Modeling of electricity and natural gas usage of the project is included in Appendix C of this DEIR. Vehicle and equipment energy calculations are included in Appendix F of this DEIR.

#### 5.5.1 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. The update of the CEQA Guidelines, effective December 28, 2018, provided specific requirements for the assessment of energy impacts and integrated energy as a topical section in the Appendix G checklist of the CEQA Guidelines.

In accordance with Appendices F and G of the 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 Laguna Niguel City Center Mixed Use Project's (proposed project) anticipated energy needs, impacts, and conservation measures. Information found herein, as well as other aspects of the proposed project's energy implications, are discussed in greater detail elsewhere in this EIR, including Chapter 3, *Project Description*, and Sections 5.2, *Air Quality*, 5.7, *Greenhouse Gas Emissions*, and 5.15, *Transportation*.

#### 5.5.1.1 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.

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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 for model year 2025. However, on March 30, 2020, the US Environmental Protection Agency (EPA) finalized an updated CAFE and greenhouse gas 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 through 2026 (85 Federal Register 84 (April 30, 2020)). Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards of 2012. Overall, SAFE requires a fleet average of 40.4 miles per gallon for model year 2026 vehicles. However, per Executive Order 13990 issued by President Biden on January 20, 2021, the EPA is reconsidering SAFE for the purpose of rescinding the rule. The reconsideration process is ongoing. A planned public hearing on June 2, 2021, started the public comment period that ended on July 6, 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 sets 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, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (US EPA 2019).

#### **State**

##### *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 2021.

##### *Renewables Portfolio Standard*

The California Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill (SB) 1078 and was amended in 2006, 2011, and 2018. 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. 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. According to the 2020 annual report, the three largest retail energy utilities—Pacific Gas and Electric, Southern California Edison, and San Diego Gas & Electric—provided 31, 38, and 39 percent, respectively, of their supplies from renewable energy sources (CPUC 2020). Since 2003,

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these three utilities have contracted over 21,000 megawatts (MW) of renewable capacity (CPUC 2020).<sup>1</sup> SB 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—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. SB 100 (de Leon) passed in 2018 puts California on the path to 100 percent fossil-fuel-free electricity by the year 2045 (CEC 2017a).

### *Senate Bill 350*

SB 350 (de Leon) was signed into law September 2015 and established tiered increases to the RPS—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, SB 100 was signed, replacing the SB 350 requirements. Under SB 100, the RPS for publicly owned facilities and retail sellers will 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 established 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 (California Code of Regulations [CCR] Title 20, Parts 1600 to 1608) 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. These standards are updated regularly to allow consideration of new energy-efficiency technologies and methods (CEC 2017b).

### *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 and most recently revised in 2019 (24 CCR Part 6). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated every three years 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 January 1, 2020. The 2022 Title 24 goes into effect on January 1, 2023.

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<sup>1</sup> Renewable capacity is defined as the maximum power-generating capacity of power plants that use renewable energy sources to produce electricity.

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The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic 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 photovoltaic systems; (2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); (3) residential and nonresidential ventilation requirements; and (4) nonresidential lighting requirements (CEC 2018). Based on a study of the statewide impacts of the 2019 changes to the California Energy Efficiency Standards, the reductions for newly constructed multifamily residential buildings are estimated to be 2 percent for electricity and 5 percent for natural gas compared to the 2016 standards. Newly constructed nonresidential buildings are estimated to have a 11 percent reduction for electricity and 1 percent for natural gas (NORESCO 2018).

#### *Title 24, Part 11, Green Building Standards*

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards—CALGreen (24 CCR Part 11)—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 greenhouse gas 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 CALGreen update became effective on January 1, 2020. The 2022 Title 24 goes into effect on January 1, 2023.

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impacts during and after construction. CALGreen has requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing 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).

#### **5.5.1.2 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).<sup>2</sup> 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

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<sup>2</sup> One gigawatt-hour is equivalent to one million kilowatt-hours.

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- 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)<sup>3</sup>

The project site currently includes the library, former justice center, and country maintenance yard. The former justice center buildings are closed and do not generate a demand for energy. Operation of the existing buildings consumes electricity for various purposes, including but not limited to ventilation of buildings, water heating, operation of electrical systems, lighting, and use of onsite equipment and appliances.

### Gas

SoCalGas provides gas service in Laguna Niguel and has facilities throughout the city, including the project site. SoCalGas's service area 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 2022c). Total natural gas supplies available to SoCalGas for years 2020 through 2022 are 3.175 billion cubic feet per day. Total natural gas consumption in SoCalGas's service area is forecast to be 2.103 billion cubic feet per day in 2035 (CEC 2022e).

The existing buildings currently in operation generate natural gas demand, such as from heating and cooling of the buildings.

### 5.5.2 Thresholds of Significance

Per the City's CEQA Manual, the City relies on the questions in CEQA Guidelines Appendix G as the thresholds of significance for assessing impacts to energy. In addition, Appendix F of the CEQA Guidelines provides guidance on the contents of energy studies.

Per the City's CEQA Manual, in most cases, a project that relies on modern equipment for construction and complies with California Code of Regulations Title 24 Part 6, Energy Efficiency Standards, and the CALGreen Code for building construction would have less than significant impacts. Projects that rely on outdated equipment or are a unique use with high energy demands may cause a significant impact. In such cases, an energy analysis shall be prepared by a qualified engineer, typically the same engineer who prepares the air quality study.

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.

<sup>3</sup> The electricity sources listed reflect changes after the 2013 closure of the San Onofre Nuclear Generating Station, which is owned by SCE.

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

#### 5.5.3 Plans, Programs, and Policies

PPP E-1 New buildings are required to achieve the current California Building Energy Efficiency Standards and California Green Building Standards Code (CALGreen). The 2019 Building Energy Efficiency Standards became effective on January 1, 2020. The Building Energy Efficiency Standards and CALGreen are updated tri-annually. The 2019 standards included energy reduction measures such as solar photovoltaic (PV) system requirements for all new low-rise residential buildings. Title 24 is updated to increase sustainability and energy efficiency every three years and the project would be subject to the version of Title 24 in effect when building permits are submitted.

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 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, reused on the project, or salvaged for future use or sale and the amount of construction and demolition waste generated (by weight or volume).

PPP E-4 Construction activities are required to adhere to California Code of Regulations Title 13 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 the City's municipal code requirements to increase water efficiency and reduce urban per capita water demand.

#### 5.5.4 Environmental Impacts

##### 5.5.4.1 METHODOLOGY

The impact analysis focuses on the following sources of energy that are relevant to the proposed project: electricity and natural gas associated with new development, the short-term fuel consumed during construction, and the long-term fuel use during operation of the project. The analysis of electricity and natural gas usage for the proposed project is based on emissions modeling using California Emissions Estimator Model (CalEEMod) Version 2020.4, which quantifies energy use for occupancy. In addition, calculations for construction fuel use

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are based on vehicle and equipment data from EMFAC2017 Version 1.0.3 and OFFROAD2017 Version 1.0.1. The emissions model and construction fuel use calculations are in Appendix F of this Draft EIR.

### 5.5.4.2 IMPACT ANALYSIS

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

**Impact 5.5-1: 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]**

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#### 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. The construction of the project is not wasteful or unnecessary because the project responds to existing demand for commercial, residential, and civic uses and therefore these uses would be constructed regardless of the project. Locating these uses together on an urban infill site allows for efficiencies of scale and reduces construction waste.

##### *Electrical Energy*

Construction of the proposed project would not require electricity to power most construction equipment. Electricity use during construction would vary during different phases of construction. The majority of construction equipment during demolition and grading would be gas 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 and would fluctuate according to the phase of construction. Also, 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 other natural gas demand is anticipated during construction. Therefore, impacts would be less than significant with respect to natural gas usage.

##### *Transportation Energy*

Transportation energy use depends on the type and number of trips, vehicle miles traveled (VMT), fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. Energy consumption during construction (2023 through

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2026) was calculated using the CalEEMod (v. 2020.4) computer model and data from the EMFAC2017 (v. 1.0.3) and OFFROAD2017 (v. 1.0.1) databases. The results are shown in Table 5.5-1.

**Table 5.5-1 Construction-Related Fuel Usage**

Project Component	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
Construction Worker Commute	7,144,702	227,142	57,434	1,168	169,168	54,406
Construction Vendor Trips	102,409	19,614	1,210,510	134,603	0	0
Construction Truck Haul Trips	555	121	556,158	75,781	0	0
Construction Off-Road Equipment	N/A	36,852	N/A	183,760	N/A	0
<b>Total</b>	<b>7,247,666</b>	<b>283,728</b>	<b>1,824,102</b>	<b>395,312</b>	<b>169,168</b>	<b>54,406</b>

Source: CalEEMod v. 2020.4; EMFAC2017 v. 1.0.3; OFFROAD2017 v. 1.0.1.

Notes: Fuel usage based on the preliminary information provided by the Applicant. Because the most current data shows a reduction in building area from the preliminary data, the model outputs are conservative.

VMT=vehicle miles traveled; kWh=kilowatt hour

The vehicle energy consumption would fluctuate by construction phase and would be temporary. It is anticipated that the majority of off-road construction equipment, including demolition and grading equipment, 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. Furthermore, to limit wasteful and unnecessary energy consumption, the construction contractors are required to minimize nonessential construction equipment idling in accordance with 13 CCR, Article 4.8, Chapter 9, Section 2449, which limits nonessential idling of diesel-powered off-road equipment to five minutes or less.

The proposed project would not result in wasteful, inefficient, or unnecessary use of energy during construction. It is anticipated that the construction equipment would be well maintained and meet the appropriate tier ratings per CALGreen or US EPA emissions standards, so that adequate energy efficiency level is achieved. Construction trips would not result in unnecessary use of energy since the project site is centrally located and is served by numerous regional freeway systems (e.g., I-5 and SR-73) that provide the most direct routes from various areas of the region. Electrical energy would be available for use during construction from existing power lines and connections, precluding the use of less efficient generators. Thus, energy use during construction of the project would not be considered inefficient, wasteful, or unnecessary. Impacts would be less than significant.

### 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 energy use would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, use of on-site equipment and appliances; and indoor, outdoor, perimeter, and parking lot lighting.

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#### Electrical Energy

Operation of the existing library 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 project site also includes the former justice center, but it is currently closed and does not generate energy demand. 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 Table 5.5-2, following implementation of the proposed project, the total electricity use at the project site would be 6,253,209 kilowatt hours per year, including 184,315 kWh/year from generated from the photovoltaic system. This is primarily due to electricity use by the proposed residential housing and enclosed parking structures.

**Table 5.5-2      Electricity Consumption – Proposed Project**

Land Use	Electricity (kWh/year) <sup>1,2,3</sup>
<b>Proposed Project Conditions</b>	
Apartments Mid Rise	1,056,040
Residential Photovoltaic System	-184,315
Enclosed Parking with Elevator	2,052,060
Fast Food Restaurant	656,366
General Office Building	784,125
High Turnover (Sit Down Restaurant)	634,052
Library	133,252
Medical Office Building	269,851
Other Non-Asphalt Surfaces	0
Parking Lot	105,000
Quality Restaurant	327,143
Regional Shopping Center	419,635
<b>Total</b>	<b>6,253,209</b>

Source: CalEEMod version 2020.4.

<sup>1</sup> Based on information provided by the Applicant.

<sup>2</sup> Accounts for total electricity use from proposed buildings. See Appendix C.

<sup>3</sup> Model uses the SDGE CalEEMod carbon intensities for energy calculations.

The proposed project would increase energy demand at the site compared to existing conditions, but it would be required to comply with the current Building Energy Efficiency Standards and CALGreen. In addition, the electricity demand generated by the proposed project would be less than 0.03 percent of the SCE's yearly electricity consumption. Therefore, it would not result in wasteful or unnecessary electricity demands. Furthermore, in accordance with Title 24, Part 6, the proposed project would include a residential photovoltaic (PV) system, which would offset some of the electricity use on the project site. In addition, the new proposed buildings would be more energy efficient than the existing buildings on-site. Therefore, the proposed project would not result in a significant impact related to electricity.

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#### *Natural Gas Energy*

The existing library generates demand for natural gas due to the heating and cooling for the building and water. The project site also houses former justice center, but it is currently closed and does not generate natural gas demand. The proposed natural gas consumption for the proposed project is shown in Table 5.5-3. Following implementation of the proposed project, the proposed facilities would generate natural gas demand of 11,339,112 kilo British thermal units per year. Development pursuant to the proposed project would result in a net increase in the natural gas demands. However, because the proposed project would be built to meet the current Building Energy Efficiency Standards, it would not result in wasteful or unnecessary natural gas demands and would be more efficient than the existing on-site buildings. In addition, the natural gas demand generated by the proposed project would be less than 0.001 percent of the SoCalGas' yearly natural gas supplies. Therefore, operation of the proposed project would result in less than significant impacts with respect to natural gas usage.

**Table 5.5-3      Natural Gas Consumption – Proposed Project**

Land Use	Natural Gas (kBtu/year) <sup>1,2</sup>
<b>Proposed Project Conditions</b>	
Apartments Mid Rise	2,000,910
Enclosed Parking with Elevator	0
Fast Food Restaurant	3,020,120
General Office Building	1,213,760
High Turnover (Sit Down Restaurant)	2,917,450
Library	187,661
Medical Office Building	417,706
Other Non-Asphalt Surfaces	0
Parking Lot	0
Quality Restaurant	1,505,270
Regional Shopping Center	76,235
<b>Total</b>	<b>11,339,112</b>

Source: CalEEMod version 2020.4.

Note: kBtu = kilo British thermal units

<sup>1</sup> Based on information provided by the Applicant.

<sup>2</sup> Accounts for total natural gas use from proposed buildings. See Appendix C.

#### *Transportation Energy*

The proposed project would consume long-term transportation-related energy during operations from the use of motor vehicles. The efficiency of these motor vehicles is unknown, such as the average miles per gallon. Estimates of transportation energy use are based on the overall VMT and its associated transportation energy use. Project-related vehicle trips would be generated from visitors to the city center, employees, and residents. Additional vehicle trips to the project site include deliveries, waste pick up, and maintenance trips. As seen in Table 5.5-4, the annual VMT for the proposed project is estimated to be 26,214,739 miles. However, because the proposed project involves development of a mixed-use city center with a blend of residential, office, restaurant, and retail uses, it would provide more employment, shopping, and dining opportunities for residents

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of the City and opportunities to reside in an urbanized and walkable area with nearby amenities. In addition, in compliance with CALGreen, the proposed project would include bicycle racks and storage for employee use. Overall, the fuel demand generated by the proposed project would be less than 0.08 percent of the estimated gasoline fuel sales and 0.15 percent of estimated diesel fuel sales within the county (CEC 2022f).<sup>4</sup> These features of the proposed project would contribute to minimizing VMT and transportation-related fuel usage. Thus, it is expected that operation-related fuel usage associated with the proposed project would be more efficient than typical non-mixed-use development projects. Therefore, impacts would be less than significant with respect to operation-related fuel usage.

**Table 5.5-4 Project Annual Operation-Related Fuel Usage**

	Gasoline		Diesel		CNG		Electricity	
	Annual VMT	Annual Gallons	Annual VMT	Annual Gallons	Annual VMT	Annual Gallons	Annual VMT	Annual kWh
<b>Proposed Project<sup>1</sup></b>								
Passenger Vehicles	24,246,420	803,961	1,204,601	79,184	17,849	5,603	745,866	237,505

Source: EMFAC2017 v. 1.0.3. Annual VMT for existing conditions and project operations are based on CalEEMod default data. Accounts for net number trips based on LLG 2019.

Note: Numbers based on the preliminary information provided by the Applicant. Because the most current data shows a reduction in vehicle trips from the preliminary data, the model outputs are conservative.

***Level of Significance Before Mitigation:*** With implementation of PPPs E-1 through E-5, Impact 5.5-1 would be less than significant.

#### **Impact 5.5-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2]**

This part of the analysis discusses consistency of the proposed project with state plans pertaining to renewable energy and energy efficiency.

#### **California Renewables Portfolio Standard**

The statewide RPS goal is not directly applicable to individual development projects, but to utilities and energy providers, such as SCE, which is the utility that would provide all of the electricity needs for the proposed project. Compliance of SCE in meeting the RPS goals would ensure the State in meeting its objective in transitioning to renewable energy. The proposed project also would be subject to the Building Energy-Efficiency Standards and CALGreen. Because the new buildings associated with the proposed project would comply with the latest energy standards, they would offer an improvement over the existing buildings on-site. Therefore, implementation of the proposed project would not conflict with or obstruct plans for renewable energy and energy efficiency. Impacts would be less than significant.

***Level of Significance before Mitigation:*** With implementation of PPP E-1, Impact 5.5-2 would be less than significant.

<sup>4</sup> Fuel sales data are for year 2020 for Orange County, which is the latest year available.

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#### 5.5.5 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 5.5.1.2. 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 and promoting renewable energy sources. Therefore, cumulative impacts of past, present, and foreseeable future development, together with the project, would be less than cumulatively significant, and project impacts would not be cumulatively considerable.

#### 5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.5-1 and 5.5-2.

#### 5.5.7 Mitigation Measures

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

#### 5.5.8 Level of Significance After Mitigation

All impacts are less than significant.

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## 5. Environmental Analysis

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