5.5 ENERGY

This section of the Draft Environmental Impact Report (Draft EIR) provides the content and analysis required by Public Resources Code, Section 21100(b)(3) and described in Appendix F to the Guidelines for the Implementation of the California Environmental Quality Act (14 California Code of Regulations Sections 15000 et seq). This section analyzes the proposed Section 31 Specific Plan Project's ("Section 31 Specific Plan" or "Project") potential impacts on energy resources, focusing on the following three resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section also evaluates the demand for energy resources attributable to the Project during construction and operation, and makes a determination regarding the Project's use and conservation of energy resources. This section demonstrates whether the 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 supporting calculations for the Project's energy use based on the California Emissions Estimator Model (CalEEMod) outputs as calculated for **Section 5.2: Air Quality** and **Section 5.7: Greenhouse Gas Emissions**, included as **Appendix C: Air Quality and Greenhouse Gas Emissions Model Output**.

A. ENVIRONMENTAL SETTING

1. Existing Conditions

The Project Site consists of approximately 618 acres situated in the City of Rancho Mirage (City), Riverside County, California. The site is described as essentially all of Section 31, Township 4 South, Range 6 East, and a portion of the southeast quarter of the southeast quarter of Section 36, Township 4 South, Range 5 East, San Bernardino Baseline and Meridian (SBBM). The site is bounded on the west by Bob Hope Drive, on the north by Gerald Ford Drive, on the east by Monterey Avenue, and on the south by Frank Sinatra Drive, all paved arterial streets. The Project Site is located in an area that currently includes nearby neighborhood commercial, residential, and resort hotel uses with proximate access to mass transit.

Energy in the State of California (State) is regulated by Title 24, Part 6, of California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. New standards went into effect in October 2005.

Energy sources are made available by private and public agencies in the City of Rancho Mirage. Major energy providers in Coachella Valley include Southern California Edison (SCE), Imperial Irrigation District (IID) and the Southern California Gas Company (SoCalGas).

Section 5.2: Air Quality, **Section 5.7: Greenhouse Gas Emissions**, **Section 5.9: Hydrology and Water Quality,** and **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** of this Draft EIR provide greater detail for estimated energy usage and infrastructure and their associated environmental impacts. This section provides focused summaries of information included throughout this Draft EIR associated with the use of energy pertaining to electricity, natural gas, and mobility-related petroleum (gasoline and diesel fuel).

Electricity

State

According to the California Energy Commission's (CEC) California Energy Consumption Database, the State of California consumed 288,614 gigawatt hours (GWh) of electricity in 2017,[1] with electricity demand projected to rise to 339,160 GWh in 2030,[2] the furthest year of currently available projections. Electricity usage in California for different land uses varies substantially by the type(s) of uses in a building, type(s) of construction materials used in a building, and the efficiency of all electricity consuming devices within a building. Due to the State's energy efficiency standards and efficiency and conversion programs, California's per capita electricity use had remained stable for more than 30 years, while the national average has steadily increased. The State produces approximately 82 percent of its electricity and imports the remaining 18 percent. The California Independent System Operator (ISO) governs the transmission of electricity from power plants to utilities.

Regional and Local

Southern California Edison

Southern California Edison (SCE) is the electric service provider to portions of Rancho Mirage and the City's Sphere of Influence. SCE's service area encompasses 15 million people and 50,000 square miles of central, coastal and Southern California. The SCE planning area used approximately 102,518 GWh of electricity in 2017.[3] SCE is regulated by the California Public Utilities Commission (CPUC) and Federal Energy Regulatory Commission (FERC). SCE receives electric power from a variety of sources. According to the California Public Utilities Commission's 2016 Biennial Renewables Portfolio Standard Program Update, 23.2 percent of SCE's power came from eligible renewable sources in 2014, including biomass/waste, geothermal, small

1 California Energy Commission (CEC), California Energy Consumption Database, "Electricity Consumption by County," accessed June 2019, http://ecdms.energy.ca.gov/elecbycounty.aspx.

2 California Energy Commission, Demand Analysis Office, "California Energy Demand 2018-2030 Revised Forecast" (January 22, 2018), accessed June 2019, available at http://www.energy.ca.gov/ (January 2017).

3 California Energy Commission (CEC), California Energy Consumption Database, "Electricity Consumption by Planning Area," accessed June 2019, http://ecdms.energy.ca.gov/elecbyplan.aspx.

hydroelectric, solar, and wind sources. This is an improvement from the 20.6 percent renewable energy portfolio that SCE achieved in 2011. Electricity distribution lines in the Project area are located above and underground. Each year, SCE allocates capital funds for the purposes of converting overhead electric distribution lines. Under provisions of Rule 20A established by the CPUC, the City may designate major streets for undergrounding overhead lines.

In addition, a variety of energy conservation programs are provided by SCE to City residents and businesses. These programs include:

- Rebates, incentives and Saving tips including a Summer Discount Plan, Mobile Home Upgrade Program, Budget Assistant and Time-of-Use Plans.
- Incentives for using electric vehicles including the Clean Fuel Reward Program and the Charge Ready Home installation rebate.
- Energy Management Center introduces new energy management products, programs, rebates and tools.

City of Rancho Mirage General Plan

The Conservation and Open Space Element of the Rancho Mirage 2017 General Plan indicates that electricity is transmitted to Rancho Mirage primarily through high-voltage lines and step-down transformers at the Devers substation near Desert Hot Springs and substations located throughout Rancho Mirage. Currently, there is no power generation in the city itself.

Community Choice Aggregation

In March of 2016, the City's Budget Subcommittee authorized staff to proceed with a feasibility study on a Community Choice Aggregation (CCA). Forming a CCA under AB 117 allows a local government to manage its electric supply on a community level, instead of through the local purveyor, in this case SCE. The CCA, controlled by the City Council, purchases the power necessary for the community and that power is delivered through SCE infrastructure. SCE maintains control of the poles, wires, and necessary infrastructure to deliver the power purchased by the CCA. Customers' electric bills are based on the rate schedules set by the CCA. CCAs provide a community and individual customers with a choice where one did not exist before. This choice often leads to lower monthly electricity bills, cleaner energy, and economic development advantages.

Rancho Mirage Energy Authority

The City of Rancho Mirage created its own utility company pursuant to CCA law called the RMEA—Rancho Mirage Energy Authority (RMEA). RMEA announced its plans to purchase electricity from 50 percent carbon-free sources (as opposed to SCE which is 34 percent renewable) and reduce the "generation" costs 5% below SCE. Utility bills are divided into "generation" charges and "delivery" charges. "Generation" charges are estimated to be 5 percent lower than SCE, while "delivery" charges are paid to SCE. RMEA customers use SCE's infrastructure and SCE continues to be responsible for maintaining that infrastructure. For every $200 a solar customer pays SCE on their "true up" bill, that customer will pay $195 to RMEA for the same amount of electricity. In addition, there is the optional 100 percent renewable plan that would require customers to opt-up to this plan.

Project Site

Title 24 of the California Administrative Code sets efficiency standards for new construction, regulating energy consumed for heating, cooling, ventilations, water heating, and lighting. These building efficiency standards are enforced through the City's building permit process. Currently, the Project Site is vacant and electricity demand is estimated to be 0 kilowatt hours per year (kWH/year). SCE facilities surround the Project Site, including above-ground lines on the southern boundary of the site along Frank Sinatra Drive. For further discussion of electric utility infrastructure near the Project Site, please refer to **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** of this Draft EIR.

Natural Gas

State

Natural gas sources for the State of California (State) include in-State sources (16 percent), Canada (28 percent), the Rockies (10 percent), and the southwest (46 percent). Gas from outside sources enter the State through large, high-pressure gas lines. These transmission lines feed natural gas storage areas located in Orange and northern Los Angeles counties, which serve all of southern California.

Regional and Local

According to the California Energy Commission (CEC), one third of energy consumed in California is natural gas. Nearly 45 percent of the natural gas burned in California is used for electricity generation, and much of the remainder consumed in residential (21 percent), industrial (25 percent) and commercial (9 percent) land uses. Natural gas is provided to the Project Site by SoCal Gas. SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas has 21.4 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the US-Mexico border.

High pressure distribution lines are located north, east, and south of the Project Site on Gerald Ford Drive, Monterey Avenue, and Frank Sinatra Drive, respectively. Currently, the Project Site is vacant. For further discussion of natural gas utility infrastructure near the Project Site, please refer to **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** of this Draft EIR. As the Project Site is currently vacant and undeveloped, existing on-site natural gas use is estimated to be 0 thousand British thermal units (kBTU) per year.

Petroleum

State

There are more than 27 million registered vehicles in California, and those vehicles consumed an estimated 18.5 billion gallons of petroleum and diesel in 2014, according to CEC. Gasoline and other vehicle fuels are commercially provided commodities and would be available to the Project via commercial outlets.

According to CEC, transportation accounts for nearly 37 percent of California's total energy consumption. Petroleum-based fuels account for approximately 92 percent of California's transportation energy sources. Technological advances, market trends, consumer behavior, and government policies could result in significant changes to fuel consumption by type and total. Various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicles miles traveled (VMT), at the federal and State levels. Technological advances have made use of other energy resources or alternative transportation modes increasingly feasible, as market forces have driven the price of petroleum products steadily upward.

Regional and Local

Persons travelling to and from the Project Site also have the option of using public transportation to reduce transportation related fuel use. A Sunline Transit Bus Stop is located at the intersection of Bob Hope Drive and Gerald Ford Drive near the northwestern corner of the Project Site. For further discussion of current public transit lines that serve the Project Site, please refer to **Section 5.15: Traffic and Transportation** of this Draft EIR. As mentioned in **Section 3.0: Project Description**, the Project would include pedestrian connections and transit-oriented, mixed-use development within the Town Center Planning Area (Town Center) which would serve to enhance the viability of a potential future transit stop or bus turnout along Monterey Avenue, dependent upon Sunline needs.

2. Regulatory Setting

Federal

Corporate Average Fuel Economy Standards

First established by the US 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 US Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The US 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.[4]

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission is an independent agency that regulates the transmission and sales of electricity, natural gas, and oil in interstate commerce, licensing of hydroelectric projects, and oversight of related environmental matters. The setting and enforcing of interstate transmission sales is also regulated by Federal Energy Regulatory Commission.

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act to serve the nation's energy demands and promote feasibly attainable conservation methods. This act established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards were approved for model year 2017 passenger cars and light trucks at 54.5 miles per gallon. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Acts of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility, as well as address national and local interests in air quality and energy. ISTEA contained factors that metropolitan planning organizations were to address in development transportation plans and programs, including some energy-related factors. To meet the

4 For more information on the CAFE Standards, refer to https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

new ISTEA requirements, metropolitan planning organizations adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

The Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of informed transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addresses energy production in the United States, including (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) tribal energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology. The act includes provisions such as increasing the amount of biofuel that must be mixed with gasoline sold in the United States and loan guarantees for entities that develop or use innovative technologies that avoid the by-production of greenhouse gases (GHGs).

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standard (Sections 301-325)
- Building Energy Efficiency (Sections 411-441)

This federal legislation requires ever-increasing levels of renewable fuels—the RFS—to replace petroleum. The USEPA is responsible for developing and implementing regulations to ensure that transportation fuel

sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Environmental Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of the nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- Expanded RFS program to include diesel, in addition to gasoline.
- Increased volume of renewable fuel required to be blended into transportation fuel from nine billion gallons in 2008 to 36 billion gallons by 2022.
- New categories of renewable fuel and separate volume requirements for each one.
- Requirement that the USEPA apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel is replaces.

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

Leadership in Energy and Environmental Design

The US Green Building Council (USGBC) is committed to transforming the way buildings are designed, constructed, and operated through the LEED certification program. LEED acts as a certification program for buildings and communities to guide their design, construction, operations and maintenance toward sustainability. LEED is based on prerequisites and credits that a project meets in order to achieve a certification level of Certified, Silver, Gold, or Platinum.

State

California Code of Regulations Title 13, Section 2449(d)(3) and 2485

California Air Resources Board (CARB) is responsible for enforcing CCR Title 13 Sections 2449(d)(3) and 2485, which limit idling from both on-road and off-road diesel-powered equipment.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Located in CCR Title 24, Part 6 and commonly referred to as "Title 24," these energy efficiency standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The goal of Title 24 energy standards is the reduction of energy use. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. On October 24, 2015, the California Energy Commission (CEC) adopted the 2016 Building and Energy Efficiency Standards with the effective date of the 2016 Standards beginning January 1, 2017. CEC estimates that implementation of the 2016 Building Energy Efficiency Standards have the potential to reduce statewide annual electricity consumption by approximately 281 gigawatt-hours per year, electrical peak demand by 195 megawatts, and natural gas consumption by 16 million therms per year.

Title 24 also includes Part 11, known as California's Green Building Standards (CALGreen). The CALGreen standard took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential, and State-owned buildings, as well as schools and hospitals. The 2016 CALGreen standards became effective on January 1, 2017. The mandatory standards require:

- 20 percent mandatory reduction in indoor water use.
- 50 percent construction and demolition waste must be diverted from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.
- Low-pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

Energy Action Plan II

The CEC, California Power Authority, and California Public Utilities Commission (CPUC) adopted an Energy Action Plan (EAP) to establish goals for California's energy future and a means to achieve these goals. EAP II supports and expands on the commitment of State agencies to cooperate and reflect on the energy actions since original EAP adoption. EAP II includes a coordinated implementation plan for state energy policies that have been articulated through EOs, instructions to agencies, public positions, and appointees' statements; CEC's Integrated Energy Policy Report; CPUC and CEC processes; agencies' policy forums; and legislative direction.

Integrated Energy Policy Report

The CEC is responsible for preparing Integrated Energy Policy Reports, which identify emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The CEC's 2015 Integrated Energy Policy Report discusses the State's policy goal to require that new residential construction be designed to achieve zero-net-energy standards by 2020, and that new nonresidential construction follow by 2030.

Renewable Portfolio Standards

As most recently amended by SB 350, the Renewable Portfolio Standard requires an annual increase in renewable energy generation by utility providers equivalent to at least 33 percent by 2020 and 50 percent by 2050. (Interim Renewable Portfolio Standard targets also are set between 2020 and 2030.)

State Vehicle Standards

The CARB Advanced Clean Cars program for passenger vehicles—cars and light trucks—serves to reduce petroleum consumption by increasing the operating efficiencies of vehicles and accelerating the penetration of plug-in hybrid and zero-emission vehicles in California. CARB has also adopted regulations that enhance the operating efficiencies of various types of construction equipment. While such regulations primarily are adopted to reduce air pollution, co-benefits—in the form of reduced petroleum consumption—are common.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meets its GHG emissions reduction mandates. As specifically codified in Government Code Section 65080, SB 375 requires the Metropolitan Planning Organization relevant to the project area (in this case, Coachella Valley Association of Governments [CVAG]) to include a Sustainable Communities Strategy (SCS) in its Regional Transportation Plan (RTP). While the main focus of the SCS is to plan for growth that will ultimately reduce GHG emissions, the strategy is also part of a bigger effort to address many other development issues within the general vicinity, including transit and VMT.

Local

Coachella Valley Association of Governments Desert Cities Energy Partnership

The Coachella Valley Association of Governments (CVAG) is a sub-regional organization within the Southern California Association of Governments (SCAG). CVAG operates as part of larger jurisdictional or regional teams within the Coachella Valley, made up of ten cities, Riverside County, and two Native

American Indian tribes. CVAG initiated the Desert Cities Energy Partnership with SCE and SoCalGas through an Agreement effective in January 2010. The First Amendment to the agreement between CVAG and the utilities to continue the partnership through December 31, 2014 was authorized by the CVAG Executive Committee in December 2012. Since then, the Second through Fifth Amendments to the agreement extended the Partnership each year and provided an authorized budget. The Fifth Amendment was approved to extend the program to December 2018, including a reduction in the SCE budget amount for the Desert Cities Energy Partnership. SCE, SoCalGas, and the CPUC continue to evaluate the benefits as well as the future of these partnerships.

The goal of the Desert Cities Energy Partnership is "to help local governments effectively lead their communities to increase energy efficiency, reduce greenhouse gas emissions, protect air quality and ensure that their communities are more livable and sustainable." The partnership provides performance-based opportunities for the Coachella Valley jurisdictions to demonstrate energy efficiency leadership in our communities through energy saving actions.

The Green for Life Program

According to the 2012 Rancho Mirage Energy Action Plan, the Green for Life Program is funded by SCE under the auspices of the CPUC and administered by CVAG. It provides the City with a number of valuable services including:

- Building "Tune-ups" Through Commissioning/Retro-Commissioning (RCx);
- Benchmarking;
- Utility Manager Program – Enterprise Energy Management Information System (EEMIS);
- Voluntary Green Building Program;
- Greenhouse Gas (GHG) Inventory;
- Sustainability Plan;
- Energy Action Plans; and
- Regional Planning.

Rancho Mirage Sustainability Plan

The City of Rancho Mirage completed the 2013 Sustainability Plan: Leadership in Energy Efficiency (Sustainability Plan) in May 2013. The Sustainability Plan is a framework for the development and

implementation of policies and programs that will reduce the City's emissions, working towards the Statewide target of 1990 levels by 2020, set by AB 32. For the City to achieve the Statewide target of 1990 levels by 2020, it will have to reduce emissions by 54,272 MTCO2e, a 19.8 percent reduction. The set of measures presented in the Sustainability Plan will reduce the City's GHG emissions by 60,411 MTCO2e, which is 6,139 MTCO2e over the target amount of 54,272 MTCO2e.

Rancho Mirage Energy Action Plan

The 2012 Energy Action Plan (ePlan) provides a roadmap of actions within the City's municipal operations, to help reduce energy consumption, to reduce operating costs, and increase energy awareness. The goals focus on three areas: retrofit and expansion of municipal facilities, upgrading the municipal fleet, and consideration of municipal programs and actions that will help reduce municipal and community-wide energy use and greenhouse gas (GHG) emissions. It focuses on ways the City can reduce costs at the same time as energy efficiency is enhanced. The City developed this plan to move aggressively toward its 10% energy reduction target.

Electric Vehicle Infrastructure:

Rancho Mirage will follow a deliberate plan to develop an infrastructure for electric vehicles (EVs) and will:

- Establish charging/refueling station at City Facilities
- Work with local gas stations and others to promote public charging stations
- Continue to seek grants and partnerships to increase penetration of EVs in the community.

Rancho Mirage 2017 General Plan Update

The Rancho Mirage 2017 General Plan Update Public Services and Facilities (PS&F) Element addresses utility facilities that are utilized by the City. The purpose of the Public Services and Facilities Element is to establish City policy that provides for a coordinated system of the services to adequately serve Rancho Mirage at full buildout. The Element also identifies standards for infrastructure relative to population or land use intensity and identifies courses of action and programs that provide the means to implement the goals and policies of the element. The Element lists goals, policies and programs regarding public utilities in the City.

The 2017 Conservation and Open Space (COS) Element defines and establishes goals, policies and programs toward preserving and managing valuable resources in the city. It addresses the need for

conservation, diverse development and thoughtful use and management of energy and mineral resources.

Electric Power

The PS&F Element indicates that Electric power services in the City of Rancho Mirage are provided by the Southern California Edison Company (SCE), and to a limited extent, the Imperial Irrigation District (IID). Rancho Mirage has several SCE transmission substations throughout the City. Electric power is primarily generated outside the Coachella Valley, but SCE purchases wind-generated power from local producers. SCE facilities include 12 kV transmission lines for local distribution. Higher voltage lines for more distant transmission range up to 115 kV and 230 kV. Substations step down voltage for local distribution and use. Three substations serve Rancho Mirage: one on Highway 111 just east of Thunderbird Cove, one on Clancy Lane at Monterey Avenue, and one on Plumley Road south of 35th Avenue.

Renewable Energy (Solar)

According to the U.S. Department of Energy, "the tremendous growth in the U.S. solar industry is helping to pave the way to a cleaner, more sustainable energy future. Over the past few years, the cost of a solar energy system has dropped significantly -- helping to give more American families and business access to affordable, clean energy." Building permits for solar energy projects have increased dramatically in recent years. As noted on the City's website, Rancho Mirage enjoys approximately 350 days of sunshine each year, and so is a perfect location for solar energy installations.

Wind Energy

According to the Rancho Mirage General Plan Conservation and Open Space Element, the San Gorgonio Pass, including the Edom Hill resource area, is one of the world's most successful wind energy production sites, with the potential to provide over 3,000 megawatts of clean and renewable electrical generating capacity. The cost of wind generated electricity is now competitive with electricity generated by coal or natural gas. All wind-generated electricity in the Coachella Valley is currently sold to SCE and other distributing companies.

Natural Gas

According to the Public Services and Facilities Element, natural gas provides more electricity generation than any energy source in California. Data gathered as of September 10, 2015 by the California Energy Commission indicates that 60 percent of all electric generation in California comes from natural gas. Southern California Gas provides natural gas service in the City of Rancho Mirage. This agency has regional and local distribution lines in Rancho Mirage and the sphere of influence. Natural gas is commonly used for space heating, domestic and commercial hot water, cooking and air conditioning applications.

According to the COS Element of the 2017 General Plan, although it is a nonrenewable resource and generates a range of air pollutants, natural gas is generally considered a clean and efficient fuel and is preferable to many other nonrenewable resources such as oil. SoCalGas has developed a wide range of energy management, conservation, and equipment retrofit programs for its customer base. Assistance in facilities planning and analysis is also provided by SoCalGas to maximize energy efficiency and cost-effective equipment purchases and operations.

The General Plan indicates that natural gas services are available to all prospective users and nearby major transmission facilities assure availability for most anticipated needs, be they residential, commercial or industrial. Cost of services varies seasonally and with amount of use.

Petroleum

According to the COS Element, as the many costs associated with the use of fossil fuels continue to rise, renewable alternatives such as wind and solar energy will become progressively more desirable and cost effective to develop. Rancho Mirage is well situated to take advantage of the continued emergence and refinement of wind and solar technologies.

Applicable Goals and Policies

The following goals and policies from the City's General Plan Conservation and Open Space Element are relevant to the Project:

Goal 4: The conservation, efficient use, and thoughtful management of energy sources and mineral deposits.

Goal 5: The long-term viability of limited and nonrenewable resources.

Policy 5.1: The City shall promote energy efficiency and conservation in all areas of community development, including transportation, development planning, and public and private sector construction and operation, as well as in the full range of residential and nonresidential projects.

- Program 5.1A: Participate in the energy management and conservation efforts of Sunline Transit Authority and encourage the expanded use of compressed natural gas, buses with bike racks, and other system improvements that enhance overall energy efficiency and conservation.

- Program 1B: To the extent practical, monitor and influence development in the vicinity of significant mineral resources occurring in the City's SOI.

Policy 5.2: The General Plan and other community plans shall assure an efficient circulation system and land use pattern in Rancho Mirage.

- Program 2a: Require development to design and locate convenient neighborhood shopping and medical and other professional services to minimize travel and facilitate the use of alternative means of transportation.

Policy 5.3: Major developments that provide significant employment centers shall be required to provide convenient and safe access to the public transit system.

Policy 5.4: The City shall proactively support the affordable and reliable production and delivery of electrical power to the community.

Policy 5.5: The City shall support public and private efforts to develop and operate alternative systems of solar and electrical production that take advantage of local renewable resources.

- Program 5.5a: Support and facilitate the integration of cogeneration and other energy management systems into commercial operations in the City to enhance operational efficiencies and provide additional opportunities for local power production.

City of Rancho Mirage Municipal Code

The City of Rancho Mirage includes provisions in its Municipal Code that encourage the use of alternative transportation means that reduce the use of nonrenewable energy. The following list includes some of these provisions:

- 10.70.010 Golf Cart Transportation Plan,
- 10.56.120 Neighborhood electric vehicle plan,
- 15.84 Small Residential Rooftop Solar Energy System Permits

B. ENVIRONMENTAL IMPACTS

1. Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have a significant impact to energy resources, if it would:

Threshold 5.5-1: **Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation.**

Threshold 5.5-2: **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.**

2. Methodology

The analysis in this section is derived from Project-specific California Emissions Estimator Model (CalEEMod) version 2016.3.2 Modeling Data. CalEEMod is a Statewide land use emissions computer model designed to provide a uniform platform to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from land use projects. Fuel consumption by construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files. Fuel consumption from construction worker and vendor trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT were then calculated for each type of construction-related trip and divided by the corresponding miles per gallon factor using the USEPA's Greenhouse Gas Equivalency Calculator.

Annual Consumption of electricity and natural gas was calculated using demand factors provided in CalEEMod as part of the GHG Analysis included in **Section 5.7: Greenhouse Gas Emissions** of this Draft EIR. Daily Trip Generation used in this analysis was based on the Traffic Study prepared for the Project (see **Appendix I.1**). Daily Project-related trips were entered into CalEEMod, which calculated the annual VMT. Based on annual VMT, gasoline and diesel consumption rates were calculated for operations.

The project will require submittal to the appropriate agencies discussed in this section for review and approval of on-site design for circulation, building standards and utility installation. Implementation of energy conservation measures discussed in this and other sections of this EIR will help to reduce the impacts on energy resources.

3. Project Design Features

The following Project Design Features (PDFs) are incorporated into the Project and would reduce the potential energy use impacts of the Project. These features were considered in the analysis of potential impacts. As mentioned throughout this Draft EIR, the Project Site is surrounded by existing utilities infrastructure and mass transit availability. The Project would require submittal to the appropriate agencies and providers discussed in this section for review and approval of improvement plans. Implementation of energy conservation measures discussed in this and other sections of this Draft EIR would help to reduce impacts on energy resources. Some of these PDFs are described as follows:

PDF 5.5-1: "Dark Sky-Friendly" lighting shall be designed to protect the beauty of the desert sky and shall respect the requirements and guidelines of the Mount Palomar restricted nighttime light zone, as identified in Riverside County's Ordinance No. 655. Up-lighting is discouraged except for well-shielded landscape accent lighting. Maximum lamp wattage requirements shall be established for different lighting types to minimize obtrusive and unnecessary lighting and conserve energy resources to the greatest extent possible.

PDF 5.5-2: Automatic timers shall be programmed to maximize personal safety at night while conserving energy.

PDF 5.5-3: Buildings shall be sited and designed to maximize the use of sunlight and shade for energy savings and respect the right to solar access of nearby and adjacent buildings. Whenever appropriate, buildings shall be oriented so that the long axis of the building is oriented east–west to maximize the opportunity for north- and south facing windows, which receive indirect, diffused light with low heat gain for the building, reducing cooling costs during summer months.

PDF 5.5-4: The pursuit of already established sustainable best management practices, such as Leadership in Energy and Environmental Design (LEED) certification, ComfortWise and EnergyStar Home shall be utilized throughout the Project Site. For maximum flexibility, however, developers and builders shall implement sustainable building and development practices identified within the Voluntary Green Building Program and the Voluntary Green Building Manual.

PDF 5.5-5: Builders shall participate in programs offered or sponsored by local utilities such as California EnergyStar New Homes Program, Residential Property Development Program, California Home Energy Efficiency Rating System (CHEERS) Program, and Savings by Design Program.

PDF 5.5-6: Developers shall assemble an educational pamphlet highlighting the Section 31 Specific Plan Project's energy and water efficiency features to distribute in the on-site hotel rooms and public beach areas (see also PDF 5.16.1-5).

As discussed throughout this Draft EIR, the Project would incorporate numerous energy efficiency measures and design features to enhance efficiency in all aspects of buildings' life-cycles. These design measures and features would serve to increase overall sustainability.

4. Project Impacts

Threshold 5.5-1: Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation?

As mentioned previously, the Project Site is currently vacant and undeveloped, and does not presently contain energy-consuming land uses. Electricity and natural gas facilities surround the Project Site which would serve the Project, as discussed in **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** of this Draft EIR. The following is a discussion of energy consumption anticipated during construction and operation of the Project pertaining to electricity, natural gas, and mobility-related petroleum.

Construction

During 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, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. 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 5.5-1: Summary of Energy Use During Construction**, a total of 147,979 thousand kilowatt-hours (kWh) of electricity, 2,268,512 gallons of diesel fuel, and 1,935,686 gallons of gasoline are estimated to be consumed during the entire construction period. The Project construction schedule would depend on market conditions and the business needs of future developer(s) and is expected to be completed by 2031.

Table 5.5-1
Summary of Energy Use During Construction

Fuel Type	Quantity
Electricity	**2,396,328 kWh**
Diesel	
Off-Road Construction Equipment[a]	1,693,171 gallons
On-Road Construction Equipment[b]	575,341 gallons
Total	**2,268,512 gallons**
Gasoline	
On-Site Construction Equipment[a]	0 gallons
Off-site Motor Vehicles[b]	1,935,686 gallons
Total	**1,935,686 gallons**

Source: Calculations involved the use of the USEPA, Greenhouse Gases Equivalencies Calculator - Calculations and References, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references.

[a] *Off-road construction equipment encompasses construction equipment on the Project Site (e.g., graders, cranes, forklifts, etc.).*

[b] *On-road construction equipment encompasses construction worker trips, vendor trips, and haul trips.*

Electricity

During construction, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, electronic equipment, and other construction activities necessitating electrical power which would be provided by SCE/RMEA. As shown in **Table 5.5-1**, a total of approximately 2,396,328 kWh of electricity is anticipated to be consumed during construction. This is based on the water for dust control which is calculated from the total days of grading, the acreage disturbed on the Project Site along with water usage factor per day and a supply water electricity intensity factor.[5] 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 9.2 percent[6] of the Project's estimated annual operational demand, which, as discussed below, would be within the supply and infrastructure service capabilities of SCE.

5 132 days x 618 acres disturbed during grading x 3,020 gallons per acre per day (Air and Waste Management Association, 1992) x 0.009727 kWh/gallons (CalEEMod default for Salton Sea Air Basin) is 18,154 kWh.

6 The percentage is derived by taking the total amount of electricity usage during construction (2,396,328 kWh) and dividing that number by the total amount of electricity during operation (26,134,410 kWh) to obtain 9.2 percent.

Natural Gas

Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are further discussed below. Any minor amounts of natural gas that may be consumed during Project construction would be temporary and negligible and would not have an adverse effect on energy resources.

Transportation Energy

Petroleum would be consumed throughout construction of the Project. Fuel consumed by construction equipment would be the primarily energy resource expended over the course of construction, while VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty equipment used for Project construction would rely on diesel fuel, as would haul trucks involved in off-hauling materials from demolition and excavation. Construction workers would travel to and from the Project Site throughout the duration of construction. It is assumed that construction workers would travel to and from the Project Site in gasoline-powered passenger vehicles. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities or use of equipment that would not conform to current emissions standards (and related fuel efficiencies).

Heavy-duty construction equipment of various types would be used during each phase of construction of the Project. CalEEMod was used to estimate construction equipment usage. Fuel consumption from construction equipment was estimated by converting the total CO2 emissions from each construction phase to gallons using the conversion factors shown in the tables included below. **Table 5.5-2: Construction Worker Gasoline Demand**, illustrates the demand of gasoline for construction worker trips to and from the Project Site for the various construction phases. Construction worker demand would result in a total demand of 1,935,686 gallons of gasoline.

Table 5.5-3: Construction Vendor Diesel Fuel Demand, illustrates the demand of diesel fuel for construction vendor trips to and from the Project Site. These trips are associated with the delivery of construction materials during the construction phase. Construction vendor demand would equal a total demand of 1,693,171 gallons of diesel fuel.

Table 5.5-2
Construction Worker Gasoline Demand

Construction Phase	Days	Trips	Miles	VMT	KgCO2e	Kg/CO2/Gallon[a]	Gallons
Grading	132	73	11	105,996	35,177.40	8.89*	3,957
Building Construction	2,869	1,917	11	60,498,603	16,425,832.3	8.89	1,847,675
Paving	239	15	11	39,435	9,104.00	8.89	1,024
Arch. Coating	741	383	11	3,121,833	738,135.7	8.89	83,030
						Total	**1,935,686**

Source: Calculations involved the use of the USEPA, Greenhouse Gases Equivalencies Calculator Calculators and References, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references.

[a] *References: https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references; https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator*

Table 5.5-3
Construction Vendor Diesel Fuel Demand

Construction Phase	Days	Trips	Miles	VMT	KgCO2e	Kg/CO2/Gallon	Gallons
Grading	132	0	0	0	0	10.18	0
Building Construction	2869	573	5.40	8,877,259.80	17,236,475.9	10.18	1,693,171
Paving	239	0	0	0	0	10.18	0
Arch. Coating	741	0	0	0	0	10.18	0
						Total	**1,693,171**

Table 5.5-4: Construction Equipment Diesel Fuel Demand, illustrates the demand of diesel fuel for on-site construction vehicles during the various construction phases. Construction equipment diesel demand equals a total of 575,341 gallons of diesel fuel.

Table 5.5-4
Construction Equipment Diesel Fuel Demand

Construction Phase	Days	Equipment Units	KgCO2e	Kg/CO2/Gallon	Gallons
Grading	132	29	2,089,651.4	10.18	205,270
Building Construction	2869	9	3,384,282.2	10.18	332,444
Paving	239	6	288,326.4	10.18	28,323
Arch. Coating	741	1	94,715.2	10.18	9,304
				Total	**575,341**

In summary, the Project is estimated to consume approximately 1,935,686 gallons of gasoline and 2,268,512 gallons of diesel fuel during the Project's construction phases, totaling 4,204,198 gallons of petroleum to be consumed. Petroleum use is necessary to operate construction equipment, and construction equipment would employ Tier 3 engines or higher, and thus would be newer off-road equipment units (see Mitigation Measure **MM 5.2-2**). Additionally, energy used during construction of the Project would be limited to the construction period and would not involve long-term petroleum use. As such, energy consumption during construction activities would not be considered excessive, inefficient, or unnecessary.

As noted above, there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities or use of equipment that would not conform to current emissions standards (and related fuel efficiencies). Thus, Project construction would not consume petroleum in a wasteful or inefficient manner.

Operation

No adverse effects to nonrenewable energy resources are anticipated with development of the Project Site as proposed by the Project. Furthermore, the Project would not result in the use of excessive amounts of fuel or electricity and would not result in the need to develop additional sources of energy. As shown in **Table 5.5-5: Summary of Annual Energy Use During Operation**, the Project's new energy demand would be approximately 26,134,410 kWh of electricity per year, 81,206,800 thousand British thermal units (kBTU) of natural gas per year, 5,144,611 gallons of petroleum fuel per year. While energy use at the Project would not be excessive, the Project would incorporate several measures directed at minimizing energy use (see PDF 5.5-1 through 5.5-5 as well as additional PDFs and mitigation measures shown in **Section 5.2: Air Quality** and **Section 5.7: Greenhouse Gas Emissions**).

Table 5.5-5
Summary of Annual Energy Use During Operation

Source	Units	Total Project Energy Use
Electricity Total	kWh/yr	26,134,410
Natural Gas Total	kBTU/yr	81,206,800
Petroleum Total	Gallons	5,144,611

Source: Calculations involved the use of the USEPA, Greenhouse Gases Equivalencies Calculator Calculators and References, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references.
Notes: kWh/yr = thousand kilowatt-hours per year; kBtu/yr = thousand British Thermal Units per year.
Electricity and Natural Gas for the Project is total operational usage. Mobile gasoline and diesel usage were calculated using a modified trip rate, which was provided by the Traffic Study, attached as ***Appendix I.1****.*

Electricity

As shown in **Table 5.5-6: Operation Electricity Demand**, the Project would generate the demand for approximately 13,388,460 kWh of annual energy use for the residential component and 12,745,950 kWh of annual energy use for the nonresidential components. As mentioned previously, the SCE planning area used approximately 102,518 gigawatt hours (GWh) of electricity in 2017. SCE estimates that electricity consumption within SCE's planning area will be approximately 129,000 GWh annually by 2030.[7] Based on the Project's estimated new electrical consumption of 26,134,410 kWh per year, the Project would account for approximately 0.03 percent of SCE's total estimated demand in 2030.[8] While the Project would result in a long-term increase in demand for electricity, the Project would be required to comply with Title 24 and CALGreen requirements related to energy efficiency, as well as utilize photovoltaic panels to provide solar power on site. Solar power would be provided to offset Project-related energy use, thereby lowering energy demand that would be generated by the Project. Further, submittal, review, and approval of Project plans through the City and SCE would ensure future electricity demands would be manageable.

Furthermore, the base plan offered by RMEA to consumers procures 50 percent of its electricity from renewable sources, with an option for 100 percent renewable power also available. The current sources procured by RMEA include wind, solar, and geothermal sources, which represent the available off-site renewable sources of energy that would help meet the Project's energy demand.

7 California Energy Commission, Demand Analysis Office, "California Energy Demand 2018-2030 Revised Forecast" (April 19, 2018), pg. 97, accessed June 2019, available at https://efiling.energy.ca.gov/getdocument.aspx?tn=223244.

8 26,134,410 kWh = 26.13 GWh. 26.13 / 102,518 = 0.03 percent.

Table 5.5-6
Operational Electricity Demand

Land Use	Electricity Use kWh/yr
Residential	13,388,460
Hotel	10,535,700
Nonresidential	2,210,250
Total	**26,134,410**

Source: Calculations involved the use of the USEPA, Greenhouse Gases Equivalencies Calculator - Calculations and References, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references.

Natural Gas

Natural gas would be directly consumed throughout the operation of the Project, primarily through building heating, water heating, and cooking. Natural gas consumption was estimated for each of the Project's land uses based on the CalEEMod default values. Based on these calculations, the Project is estimated to consume approximately 81,206,800 thousand British thermal units (kBTU) of natural gas per year during operation.[9] This includes 45,964,500 kBTU consumption by the residential component, 388,500 kBTU consumption by the nonresidential components, and 34,853,800 kBTU consumption by the resort hotel use, as shown in **Table 5.5-7: Operational Natural Gas Demand**.

As such, the Project would result in a long-term increase in demand for natural gas. However, the Project would be designed to comply with Title 24, Part 6, of the CCR, and the City's Sustainability Plan. Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,310 million cf per day in 2030.[10] The Project would account for approximately 0.01[11] percent of the 2030 forecasted consumption in SoCalGas' planning area and would use the infrastructure shown in **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)**. Natural gas consumption would be appropriate and not place a significant burden on SoCalGas services. Further, submittal, review, and approval of Project plans through the City and SoCalGas would ensure future natural gas demands would be manageable.

9 81,206,800 kBTU/yr is approximately 214,546 cf/day per the 1 cf to 1.037 kBTU conversion and 365 days a year.

10 California Public Utilities Commission, 2018 California Gas Report, pg. 103, accessed March 2019, https://www.sdge.com/sites/default/files/regulatory/2018%20California%20Gas%20Report.pdf. 2038 value was interpolated from 2030 and 2035 values.

11 214,546 cf/day divided by 2,310 million cf/day is 0.01 percent.

Table 5.5-7
Operational Natural Gas Demand

Land Use	Natural Gas Use kBTU/yr
Residential	45,964,500
Hotel	34,853,800
Nonresidential	388,500
Total	**81,206,800**

Source: Calculations involved the use of the USEPA, Greenhouse Gases Equivalencies Calculator Calculators and References, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references.

Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related vehicular travel to and from the Project Site. As discussed in **Section 5.15: Traffic and Transportation**, the Project would add 26,408 net raw project trips to the region based on the proposed mixed land uses and consists of internal and external trips. As shown in **Table 5.5-8: Operational Annual Petroleum**, the Project would use 4, 804,426 gallons of gasoline per year, 340,185 gallons of diesel per year, for a total of 5,144,611 gallons of petroleum per year. In addition, based on the Emission Factors (EMFAC) model, total Project fuel consumption would be approximately 1.5 percent of the total fuel consumed in the Salton Sea Air Basin (SSAB).[12]

Table 5.5-8
Operational Annual Petroleum

Fuel Type	Annual VMT	Kg/CO2/Gallon	Annual Gallons
Gasoline	40,711,346	8.89	4,804,426
Petroleum	3,463,082	10.18	340,185
		Total	**5,144,611**

Source: Calculations involved the use of the USEPA, Greenhouse Gases Equivalencies Calculator Calculators and References, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references. Calculations: 46,174,428 x .925 = 42,711,346; 46,174,428 x .075 = 346,082

Over the lifetime of the Project, the fuel efficiency of vehicles in use is expected to increase as older vehicles are replaced with newer, more efficient models. Thus, the amount of petroleum consumed

12 CARB, EMFAC2017 Web Database, https://www.arb.ca.gov/emfac/2017/.

because of vehicle trips to and from the Project Site during operation would decrease over time. There are numerous regulations in place that require and/or encourage increased fuel efficiency, as mentioned previously in *Chapter A: Environmental Setting* of this section. For example, CARB has adopted a new approach to passenger vehicles by combining the control for smog-causing pollutants and GHG emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emissions vehicles in California. As such, operation of the Project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

In summary, although the Project would result in an increase in petroleum use during operation compared to the existing conditions, the Project would implement measures outlined in the City's Sustainability Plan regarding VMT reduction and Project-specific petroleum use would be expected to diminish over time as fuel efficiency improves. Additionally, the Project Site is anticipated to enhance local walkability through multimodal circulation improvements and proximity to transit, building design, and clustered uses. Given these considerations, petroleum consumption associated with operation of the Project would not be considered excessive.

Conclusion

To conclude, the Project is not anticipated to result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. Impacts would be less than significant.

Threshold 5.5-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Energy Infrastructure and Efficiency

Construction

Electricity

As discussed previously, construction activities associated with the Project would require minor quantities of electricity for lighting, power tools and other support equipment. Heavy construction equipment would be powered with diesel fuel. Existing off-site infrastructure would not have to be expanded or newly developed to provide electrical service to the Project during construction. Therefore, the Project would not result in an increase in demand for electricity during construction that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

As shown in **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)**, new on-site electrical infrastructure would be served to the Project Site. Construction impacts associated with electrical infrastructure would primarily be confined to trenching for miscellaneous utility lines and connections to the Substations within the Project Site. Installation of electrical infrastructure would be limited to on-site electrical conduits and Substation(s) and minor off-site work associated with connections to electrical conduit in and around the Project Site. As such, lane closures associated with the future off-site construction work would be expected. Overall, when considering impacts resulting from the installation of any required electrical infrastructure off-site, all impacts are of a relatively short-term duration (i.e., months) and would cease to occur once the installation is complete. Construction activities associated with the Project would not impair or physically interfere with the vehicle access.

Furthermore, in accordance with SCE policies, the Project Applicant would consult with SCE to coordinate electrical infrastructure removals or relocations with site-specific requirements for each planned development. This would ensure that the SCE's specific design practices would be implemented as part of the development which would further reduce the Project's demand on SCE's electrical infrastructure during construction as well as avoid any disruption of electric service to the Project Site and other surrounding properties. As such, construction of the Project is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

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 most likely not be needed to support construction activities; thus, there would be no demand generated by construction. However, the Project would involve installation of new natural gas connections to serve the Project Site. As the Project Site is located in an area already served by existing natural gas infrastructure, it is anticipated that the Project would not require extensive off-site infrastructure improvements to serve the Project Site. Similar to electrical construction discussed above, minor off-site work associated with connections to SoCalGas mains within the public right-of-way would occur. As such, lane closures associated with the future off-site construction work would be expected. Overall, when considering impacts resulting from the installation of any required natural gas infrastructure off-site, all impacts are of a relatively short-term duration (i.e., months) and would cease to occur once the installation is complete. With regulatory compliance, impacts would be less than significant.

Furthermore, in accordance with SoCalGas policies, future developers would consult with SoCalGas to coordinate natural gas infrastructure removal or relocation with site-specific requirements for each planned development. This would ensure that the all existing gas lines would be maintained and secured

and not impacted during Project construction. This would avoid disruption of gas to the Project Site or other properties as well as would further reduce the Project's demand on SoCalGas' infrastructure during construction. As such, construction of the Project is not anticipated to adversely affect the natural gas infrastructure serving the surrounding uses or utility system capacity. Therefore, construction of the Project would not result in an increase in demand for natural gas to affect available supply or distribution infrastructure capabilities and would not result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Operation

Electricity

As shown above, the Project's operational electricity usage would be approximately 17,331,150 kWh per year, which is approximately 0.04 percent of SCE's projected demand in 2030.[13] In addition, before implementation of the Project, the Applicant would be in consultation with SCE to ensure that SCE would have adequate supplies during each planned development. If adequate supplies do not exist at the commencement of development, SCE would not provide service and therefore development would halt until supplies are sufficient. In addition, new energy codes are being provided to allow potential for net zero, such as through solar for residences, and therefore it will be assumed that total electricity usage would be reduced as a result. Therefore, during Project operations, it is anticipated that SCE's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand.

Natural Gas

As shown above, the Project would consume 99,911,504 kBTU/year or 263,963 cf/day, which represents approximately 0.01 percent of the 2030 forecasted consumption in SoCalGas' planning area. Before implementation of the Project, the Applicant would be in consultation with SoCalGas to ensure SoCalGas would have adequate supplies during each planned development. If adequate supplies do not exist at the commencement of development, SoCalGas would not provide service and therefore, development would halt until supplies are sufficient. In addition, new energy codes are being provided to allow potential for net zero and therefore it will be assumed that natural gas usage would be reduced as a result. Therefore, it is anticipated that SoCalGas' existing and planned natural gas supplies would be sufficient to support the Project's net increase in demand for natural gas.

13 California Energy Commission, California Energy Demand 2018-2030 Revised Forecast (February 2018), accessed March 2019, https://efiling.energy.ca.gov/getdocument.aspx?tn=223244. Projected forecasts show SCE electricity consumption to be about 4,000 GWh in 2030 for mid-demand cases, the latest available year.

Conclusion

Construction and operation of the Project would not result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, for which could cause significant environmental effects.

Consistency Analysis

As discussed previously, the Project Site is located within the City of Rancho Mirage and bound by State and local energy efficiency standards The City's General Plan COS Element summarizes key general plan policies that support the City's goals for conservation, efficiency use, and management of energy resources and the long-term viability of limited and nonrenewable resources. As discussed, the Project is not anticipated to result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. Additionally, goals, policies, and programs related to reducing GHG emissions are closely related to reducing energy consumption, through the use of alternative forms of energy or sustainable design features (see **Section 5.7: Greenhouse Gas Emissions** and **Section 5.10: Land Use and Planning** for further consistency on SCAG and the City's plans and policies as it relates to energy). In addition, the Project would not have a significant impact on the surrounding roadway network after mitigation, and therefore would maintain an efficient circulation system (see **Section 5.15: Traffic and Transportation**).

The Project would also introduce new housing and job opportunities within the City, cluster mixed-uses to enhance walkability, and be located proximate to transit, consistent with numerous State and local policies related to locating jobs near transit and reducing trips. These aspects would serve to reduce VMT and associated fuel consumption. Proposed pedestrian connections and higher density development in the Town Center would enhance the viability of a potential future transit stop or bus turnout along Monterey Avenue, dependent upon Sunline needs, which could encourage transit use by future on-site residents and employees. Further, as mentioned in **Section 5.7**, Mitigation Measure **MM 5.7-9** would require that employers provide information on public transportation options to employees, among other requirements.

Any further details for infrastructure upgrades would be accomplished through the required design review and approval of utility, building design, and circulation plans for the Project through the City and the appropriate regulatory agencies and utility providers, discussed in further detail in **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)**.

The Project would increase demand for energy in the vicinity of the Project Site within the SCE and SoCalGas service areas. However, no significant adverse effects on nonrenewable resources are anticipated. As discussed throughout this section, additional Project-related demand would be well within the supply and infrastructure service capabilities of utility providers. Energy consumption would be reduced to the greatest extent feasible through both regulatory compliance and Project Design Features PDF 5.5-1 through PDF 5.5-5, while a substantial portion of electricity that is consumed would be procured from renewable sources, consistent with State mandates. As discussed in the vehicle miles traveled (VMT) analysis in **Section 5.15: Traffic and Transportation**, the Project would perform 38 percent better than the City average, indicating that travel from the Project Site is much more efficient per person than existing travel in the City. This can largely be attributed to the Project's provision of a substantial number of housing units to match employment-rich projections in the City, and the Project's clustering of mixed uses which lessen the generation and length of vehicle trips. Accordingly, fewer VMT would result in reduced consumption of petroleum-based fuels, a nonrenewable resource.

The Project would exceed Title 24 requirements of the CBC due to complying with the City's Voluntary Green Building Program, which exceeds Title 24 by 15 percent and would also incorporate sustainable design features directed at reducing energy consumption. The Project is not anticipated to conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

5. Cumulative Impacts

The geographic context for the cumulative analysis of electricity is SCE'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 the SSAB consumption. Growth within these geographies, partially attributable to the State's emphasis on housing development, is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

Wasteful, Inefficient and Unnecessary Use of Energy

Electricity

Buildout of the Project, related projects, and additional forecasted growth in SCE's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. As mentioned previously, the SCE planning area used approximately 102,518 gigawatt hours (GWh) of electricity in 2017. SCE estimates that electricity consumption within SCE's planning area will be approximately 129,000 GWh

annually by 2030.[14] Based on the Project's estimated new electrical consumption of 26,134,410 kWh per year, the Project would account for approximately 0.03 percent of SCE's total estimated demand in 2030.[15] Although the Project development would result in the use of renewable and nonrenewable 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 SCE's service area. As noted above, this is a conservative estimate as new energy codes for net zero residential development would reduce the overall electricity consumption, and therefore SCE's demand would be reduced by the time of full buildout of the Project. Furthermore, as with the Project, during construction and operation, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate energy design features, as necessary. Therefore, 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.

Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,310 million cf per day in 2030.[16] The Project would account for approximately 0.01 percent of the 2030 forecasted consumption in SoCalGas' planning area. SoCalGas forecasts take into account projected population growth and development based on local and regional plans. Although the Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy efficient, and would be consistent with regional and local growth expectations for SoCalGas service area.

Furthermore, future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate mitigation measures, as necessary. Therefore, the Project's contribution to

14 California Energy Commission, Demand Analysis Office, "California Energy Demand 2018-2030 Revised Forecast" (April 19, 2018), pg. 97, accessed June 2019, available at https://efiling.energy.ca.gov/getdocument.aspx?tn=223244.

15 26,134,410 kWh = 26.13 GWh. 26.13 / 102,518 = 0.03 percent.

16 California Public Utilities Commission, 2018 California Gas Report, pg. 103, accessed March 2019, https://www.sdge.com/sites/default/files/regulatory/2018%20California%20Gas%20Report.pdf.

cumulative impacts related to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and, thus, would be less than significant.

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. The Project's estimated petroleum-based fuel usage would be approximately 5,144,611 gallons of petroleum fuel per year. By comparison, the SSAB would consume approximately 344,271,240 of total petroleum fuel usage for 2031. Furthermore, California consumes approximately 26 billion gallons of petroleum per year. The anticipated increase in consumption associated with one year of the Project operation is 0.02 percent of the Statewide use.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT, which would reduce reliance on petroleum fuels. According to the CEC, total gasoline consumption per capita has declined by 6 percent since 2008, and the CEC predicts that the demand for gasoline will continue to decline over the next 10 years and 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, the Project would be consistent with the energy efficiency policies emphasized by the 2016-2040 RTP/SCS. Specifically, the Project would promote equitable land use decisions that result in fewer vehicle trips by providing increased employment opportunities in proximity to residential areas, destinations, and other neighborhood services. The Project would incorporate energy design features through measures listed above. These features would serve to reduce VMT and associated transportation fuel consumption. By its very nature, the 2016-2040 RTP/SCS is a regional planning tool that addresses cumulative growth and resulting environmental effects. Since the Project is consistent with the 2016-2040 RTP/SCS as discussed in **Section 5.10: Land Use and Planning** of this Draft EIR, 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.

Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, and petroleum-based fuel) would not result in a cumulatively considerable effect related to the wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As such, the Project's impacts are less than significant.

Energy Consistency and Capacity

Consistency

The Project Site consists of approximately 618 acres of land situated in the City of Rancho Mirage within an urbanized area surrounded by existing development and infrastructure. Given the Project's consistency with State and City's energy reduction goals and objectives, the Project's contribution to the cumulative impact relative to energy use would not be cumulatively considerable and would not conflict with any applicable plan, policy, or regulation of an agency adopted for managing energy resources. Similarly, related projects would also be anticipated to comply with these same goals and objectives. Therefore, cumulative impacts with respect to energy resources would be less than significant

Capacity

Electricity

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by SCE are ongoing. SCE would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with SCE's environmental priorities and reliability standards. The Renewables Portfolio Standard Procurement Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. Development projects within the SCE service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary. Each of the related projects would be reviewed by SCE to identify necessary power facilities and service connections to meet the needs of their respective projects. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project Site. Therefore, the Project's contribution to cumulative impacts with respect to electricity infrastructure would not be cumulatively considerable and, thus, would be less than significant.

Natural Gas

Natural gas infrastructure is typically expanded in response to increasing demand and system expansion and improvements by SoCalGas occur as needed. It is expected that SoCalGas would continue to expand

delivery capacity if necessary, to meet demand increases within its service area. Development projects within its service area, including the Project and related projects also served by the existing SoCalGas infrastructure, would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. Therefore, the Project's contribution to cumulative impacts with respect to natural gas infrastructure would not be cumulatively considerable and, thus, would be less than significant.

Conclusion

Based on the analysis provided herein, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas) would not result in a cumulatively considerable effect related to available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. As such, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy infrastructure impacts would be less than significant.

C. MITIGATION MEASURES

No mitigation measures are necessary. However, PDFs and Mitigation Measures listed throughout this Draft EIR in **Section 5.2: Air Quality**, **Section 5.7: Greenhouse Gas Emissions**, **Section 5.15: Traffic and Transportation**, and **Section 5.16.3: Dry Utilities (Electricity, Natural Gas, and Telecommunications)** would work in combination to minimize Project impacts associated with energy use.

D. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Compliance with provisions outlined in the Section 31 Specific Plan, PDFs 5.5-1 through 5.5-6, and existing City regulations, plans, and programs, including the City's Sustainability Plan and Green for Life program, in addition to incorporation of best management practices, which require buildings to be more energy-efficient than required by existing regulations, would ensure that Project impacts related to energy resources would be less than significant. Further, submittal, review, and approval of Project plans through the City and relevant energy providers would ensure future energy demands would be manageable. Therefore, no significant unavoidable impacts related to energy resources would be caused by the Project.