
5.16 Energy and Irretrievable Resources

5.16.1 Introduction

This section is prepared in accordance with Appendix F of the CEQA Guidelines. CEQA Guidelines Section 15126.4(a)(1)(C) states that “Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant” and applicable to the project. Furthermore, pursuant to Section 15126.2 (c) of the CEQA Guidelines, an environmental impact report must consider use of nonrenewable resources such that, “Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.” Per the guidelines, relevant conservation and mitigation measures are discussed in this section as they relate to future implementing development projects that would later result from implementation of the proposed Project’s land use plan under ELSA No. 11.

5.16.2 Environmental Setting

The proposed Project site would receive electricity from Southern California Edison (SCE). The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) routinely assess population growth, electricity demand, and reliability. As discussed on the CEC’s website, the CEC is tasked with conducting assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand and prices (CEC 2016a). The CEC uses these assessments and forecasts to develop energy policies, that conserve resources, protect the environment, ensure energy reliability, enhance the state’s economy, and protect public health and safety (Pub. Res. Code Section 25301(a)).

Power plants that provide electricity for SCE are required to go through individual environmental review processes, which may occur through the CEC’s certified regulatory program under CEQA, or may go through the CPUC’s CEQA processes (CEC 2016b). As discussed by the CEC, from 1978 to 1998 before California’s electricity generation industry was restructured, the Energy Commission analyzed and approved 47 projects totaling 5,589 megawatts (MW). More recently, in the early 1990s the Energy Commission certified 14 power plants. Of the 14 plants, 10 were approved and eight were constructed totaling 995 MW. From 1998 through today, electric generation projects, totaling 34,692.90 MW, have been reviewed and licensed by the CEC. Sixty-four of these licensed facilities have been built and are on-line producing 22,055 MW. The CEC is continuously tracking potential projects 50 MW and larger. Similarly, the CPUC conducts and manages environmental review of infrastructure projects, including electric, gas, water and telecommunications.

5.16.3 Existing Conditions

Existing development at the Project site requires energy demand from electricity, gas and fossil fuels associated with vehicles traveling to and from the Project site. Much of the Project site remains undeveloped except for the Summerly residential neighborhood and The Links at Summerly Golf Course in proposed Planning Area 1; Serenity residential neighborhood in proposed Planning Area 4; Lake Elsinore Motocross facility in proposed Planning Area 2; Skylark Airport and minimal industrial development in

proposed Planning Area 3; and sparse residential development in proposed Planning Area 8. A summary of this development is as follows:

- 325 low-rise apartment dwelling units;
- 911 single-family housing dwelling units;
- 169 acres of golf club;
- 535 acres of open space;
- 243 acres of active recreation space (inclusive of the Lake Elsinore Motorsports Park);
- 5.5 acres of city park; and
- Skylark Airport

5.16.4 Regulatory Setting

Energy Efficiency Standards and Regulations

The federal Energy Policy Act of 1975 was established in response to the oil crisis of 1973, which increased oil prices due to a shortage of reserves. The Act required that all vehicles sold in the U.S. to meet certain fuel economy goals. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not subject to fuel economy standards. This Act indirectly applies to the Project due to its requirements for increased fuel economy standards particularly for the construction equipment to be used.

Energy Conservation Standards for new residential and commercial buildings were originally adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2010 (CCR Title 24, Part 11). In general, Title 24 requires the design of building shells and building components to conserve energy. CCR Title 24, Part 11 established voluntary standards on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation and internal air contaminants. Some of these standards became mandatory in 2010.

The California Energy Commission has opened a public process and rulemaking proceeding to adopt changes to the 2013 Building Energy Efficiency Standards contained in 24 CCR 6 (also known as the California Energy Code), and associated administrative regulations in Part 1 (collectively referred to here as the Standards). The proposed amended Standards were adopted in 2014. The Building Energy Efficiency Standards are 25 percent more efficient than previous standards for residential construction and 30 percent better for nonresidential construction. The Standards, which took effect on January 1, 2014, offer builders better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption in homes and businesses.

Construction Equipment Efficiency

On May 11, 2004, the United States Environmental Protection Agency (USEPA) announced a comprehensive rule to reduce emissions from non-road diesel engines by integrating engine and fuel

controls as a system to gain the greatest emission reductions. Engine manufacturers would produce engines with advanced emission-control technologies. Exhaust emissions from these engines will decrease by more than 90 percent in comparison to those at the time of the 2004 regulations. These construction equipment efficiency requirements are contained in 40 CFR Parts 1039, 1065, and 1068 (originally adopted in 69 Fed. Reg. 38958 [June 29, 2004], and were most recently updated in 2014 [79 Fed. Reg. 46356]). The new emission standards apply to diesel engines used in most construction, agricultural, industrial, and airport equipment. This rule sets emission standards for different sizes of non-road engines. Additionally, idling for diesel trucks is limited to five minutes. (13 Cal. Code Regs. § 2485.)

Renewable Energy Sources

Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Energy Policy Act, consumers and businesses can attain federal tax credits for purchasing fuel-efficient appliances and products, buying hybrid vehicles, building energy efficient buildings, and improving the energy efficiency of residential and commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Further, the California Renewable Portfolio Standard (RPS), established in 2002 under SB 1078, and accelerated by SB 107 [2006] and SB 2 [2011], obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33 percent of their electricity from renewable energy sources by 2020. In 2014, SDG&E produced 32 percent of its electricity from renewable sources.

Transportation Fuel Efficiency

The federal government sets fuel efficiency standards for construction equipment. Tier 4 efficiency requirements are contained in 40 CFR Parts 1039, 1065, and 1068 (originally adopted in 69 Fed. Reg. 38958 [June 29, 2004], and were most recently updated in 2014 [79 Fed. Reg. 46356]). Similarly, the federal government sets national fuel efficiency standards for light duty vehicles, pursuant to the Corporate Average Fuel Economy (CAFE) standards, which were recently updated in 2010 (75 Fed. Reg. 25324 et seq. (May, 7, 2010); see also Health & Safety Code, Sections 39002, 43000 et seq). Similarly, federal fuel efficiency standards are anticipated to continue to increase between now and 2020 and beyond. Additionally, drivers are beginning to convert to electric or alternative fuel vehicles.

It is however legally infeasible for individual municipalities to adopt more stringent fuel efficiency standards. The Clean Air Act (42 U.S. C. Section 7543(a) states that “No state or any political subdivision therefore shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part.”

The City of Lake Elsinore is also a member of the Southern California Association of Governments (SCAG), which is charged with preparing a Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) pursuant to SB 375 (2008). SB 375 required the preparation of a SCS, as part of its regional transportation plan, designed to achieve certain goals for the reduction of greenhouse gas emissions from automobiles and light trucks in a region. The most recent SCS was adopted in April 2016.

Water Efficiency

The California Plumbing Code is codified in Title 24, California Code of Regulations, Part 5. Part 5, Chapter 4 contains provisions requiring the installation of low flow fixtures and toilets. Additionally, Part 5 Section 5.303.2 & 5.303.4 provide for a minimum of 20 percent reduction in water demand and wastewater discharges. This would result in a concurrent reduction in energy demand to supply, treat, and convey water and wastewater.

5.16.5 Thresholds of Significance

Public Resources Code Section 21100(b)(3) states that an EIR shall include “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.” Similarly, CEQA Guidelines Section 15126.4(a)(1)(C) states that “Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant.”

Appendix F of the CEQA Guidelines states that a project EIR should consider to the extent relevant and applicable the potentially significant energy implications of a project, including, “Energy consuming equipment and processes which will be used during construction, operation and/or removal of the project. If appropriate, this discussion should consider the energy intensiveness of materials and equipment required for the project” (CEQA Guidelines, Appendix F (II)(A)(1)). Further, Appendix F notes an EIR should consider whether the project involves “Unavoidable Adverse Effect” such as “wasteful, inefficient and unnecessary consumption of energy during the project construction, operation maintenance and/or removal that cannot be feasibly mitigated” (Guidelines, Appendix F (II)(F)).

Furthermore, pursuant to Section 15126.2 (c) of the CEQA Guidelines, an environmental impact report must consider use of nonrenewable resources such that, “Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

5.16.6 Evaluation of Potential Project Impacts

8.1.1.1 Short-Term Construction

Construction of the future implementing development projects would consume fuel for the operation of construction vehicles and for worker and vendor trips during construction. The final determination of specific land uses and intensities of development within the proposed Planning Areas would depend on future demand and preferences; therefore, estimating construction fuel usage and other energy related demand at this time would be speculative. It is certain that construction of future implementing development projects would require an irretrievable commitment of energy resources such as gasoline and diesel fuel over the course of its 20+ year buildout. Nonetheless, construction during future buildout of the Project site is not anticipated to require excessive amounts of energy or result in the wasteful expenditure of fuels; but would rather be consistent with standard construction practices and in conformance with current efficiency regulation standards described above in Section 5.16.4 and future regulation standards established at the time of such construction activities. **Therefore, impacts would be considered less than significant and no mitigation would be required.**

Construction of future implementing development projects would also require the use of renewable resources such as lumber and other forest products, which could be expected to be replenished over the lifetime of the Project. For example, lumber supplies are increased as seedlings mature into trees. As such, future development would not result in the irreversible commitment of renewable resources although there would be an incremental increase in the demand for these resources during construction activities. Construction would also result in the use of non-renewable resources including building materials (e.g., asphalt, petrochemical construction materials, steel, copper and other metals, and sand and gravel). These materials and the resources used in their production are available in a finite supply and are generally not retrievable, although some of these materials are recyclable. Construction materials like concrete and asphalt, for example, can be crushed and recycled as road base. None of these materials are considered to be in short supply and unavailable for use in construction; and market demand would generally be anticipated to regulate the supply and demand for use of such materials. **Therefore, impacts would be considered less than significant and no mitigation would be required.**

8.1.1.2 Long-Term Operations

Consistent with Development Requirement 28 of the ELSPA No. 11, all future implementing development projects within the Project site would be required to comply with the all provisions of the California Green Building Code and the following specific requirements, which would serve to encourage the efficient use of energy within the Project site:

- a) Non-residential developments shall designate 10% of total parking spaces for any combination of low-emitting, fuel-efficient and carpool/vanpool vehicles (consistent with the California Green Building Code). Parking stalls shall be marked “Clean Air Vehicle.”
- b) Non-residential buildings constructed in the Specific Plan shall use roofing materials having solar reflectance, thermal emittance of Solar Reflectance Index (SRI) 3 or better, consistent with CalGreen Tier 1 values.
- c) All new construction shall be consistent with CalGreen Tier 1 energy-efficient building standards through either the performance based or prescriptive approach described in the California Green Building Code. Alternately, a solar photovoltaic system and/or solar water heating may be used to assist in meeting all or a portion of the 15% requirement.
- d) Buildings constructed in the Specific Plan will comply with CalGreen Tier 1 indoor water conservation requirements. Indoor water conservation will be addressed and verified at the Design Review stage.
- e) Development projects shall be required to divert, recycle or salvage at least 65% of non-hazardous construction and demolition debris generated at the site by 2020 (consistent with CalGreen Tier 1, Section A5.408.3.1). All construction and demolition projects shall be accompanied by a waste management plan for the project and a copy of the completed waste management report shall be provided to the Community Development Department upon completion.

In addition, consistent with Section 9.1.2.2 of ELSPA No. 11, the following measures would be implemented for all future implementing development projects within the Project site to further reduce the ongoing energy needs of the Project:

- Energy efficient lighting and control systems will be utilized as an integral part of lighting systems in all buildings. (CAP Measure E-1.3 and Development Standard 25.c: “All new construction shall be consistent with CalGreen Tier 1 energy-efficient building standards through either the performance based or prescriptive approach described in the California Green Building Code. Alternately, a solar photovoltaic system and/or solar water heating may be used to assist in meeting all or a portion of the 15% requirement.”)
- Light colored “cool” roofs will be required for all new buildings. (CAP Measure E-1.2, and Development Standard 25.b: “Non-residential buildings constructed in the Specific Plan shall use roofing materials having solar reflectance, thermal emittance of Solar Reflectance Index (SRI) 3 or better, consistent with CalGreen Tier 1 values.”)
- Tree species will be chosen based on their large canopy characteristics at maturity, and will be strategically placed on the west and east portions of the site to shade paving areas and building elevations to minimize heat gain. (CAP Measure E-1.1 and Development Standard 24: “Passive solar heating techniques shall be employed whenever possible within the project. Passive systems involve orienting buildings properly, planting trees to take advantage of the sun, adequate roof overhangs and proper wall insulation.”)
- Canopies, awnings, and architectural shade structures are encouraged as part of the design guidelines. These design elements will be strategically sized to shade paving areas and building elevations and minimize heat gain.
- Locally sourced, salvaged and recycled materials will be considered for use throughout the landscape and hardscape design.
- High efficiency lighting, such as LED, will be utilized for traffic, street and other outdoor lighting. (CAP Measure E-3.2)
- Lighting levels for outdoor illumination will be required to meet the minimum standards required for safety. All exterior lighting will be required to be controlled by timers, and unless otherwise required, only lighting required for parking lot security and safety will be provided at night.
- Building construction in the project shall meet applicable standards for energy efficiency such as:
 - 1) Energy efficient heating and cooling systems;
 - 2) Energy efficient appliances, equipment, and HVAC control systems. (CAP Measure E-1.3 and Development Standard 25.c: “All new construction shall be consistent with CalGreen Tier 1 energy-efficient building standards through either the performance based or prescriptive approach described in the California Green Building Code. Alternately, a solar photovoltaic system and/or solar water heating may be used to assist in meeting all or a portion of the 15% requirement.”)

Once constructed, the residents, employees and visitors of future implementing development projects would generate vehicle trips to and from the Project site, resulting in the ongoing use of gasoline and diesel fuels during the life of each project. In addition, electricity and natural gas from SCE and Southern

California Gas Company (SoCalGas) would be used to meet the future energy needs of the residential, commercial, active recreation and hotel uses up to and beyond the 2040 build out year of the Project site. Electricity would also be required indirectly to supply, treat, and convey water to the Project site and treat wastewater generated at the Project site. Estimating energy usage for the future implementing development projects at this time would be speculative due to the variability of land uses and intensities possible for the proposed Planning Areas. However, it is certain that operation of future land uses in the proposed Planning Areas would require an irretrievable commitment of energy resources over the course of their lifetime. Nonetheless, future operations are not anticipated to require excessive amounts of energy or result in the wasteful expenditure of fuels; but would rather be consistent with federal, state and local regulations, including those required under the ELSPA No. 11 development guidelines described above. The proposed Project would not result in the wasteful, inefficient, and unnecessary consumption of energy or cause the need for additional natural gas or energy-producing facilities. ***Therefore, impacts would be considered less than significant and no mitigation would be required.***

In addition, mitigation measures **MM AQ-3, MM AQ-4, MM AQ-5** and **MM GHG-1** that are designed to mitigate impacts associated with air quality and GHG emissions would also have the co-benefit of further reducing energy consumption in the form of increased building efficiency, reduced water usage and reduced single-occupancy vehicle transportation. These measures are discussed in further detail in Section 5.2 Air Quality and Section 5.6. Greenhouse Gas Emissions, respectively.

5.16.7 General Plan Consistency Impacts

Various General Plan goals and policies related to air quality, GHG emissions, utilities, water conservation, building efficiency and recycling are either directly or indirectly related to the conservation and/or efficient use of energy and other irretrievable resources. A detailed consistency analysis of the proposed Project and these goals and policies are provided in their applicable Section of this EIR. In summary, the analysis has determined that the proposed Project would be consistent with such goals and policies; ***therefore, no impacts would occur and no mitigation is required.***

5.16.8 Cumulative Impacts

As described above in Section 5.16.6, future development at the Project site would require the use of various energy resources and irretrievable building materials during construction activities and future operations of the proposed land uses. Considering that development of the Project site is currently approved under the existing ELSP and factored into the overall anticipated cumulative development of the City and region, and considering development would be subject to local, state and federal laws regarding energy efficiency and building standards, ***the Project's cumulative contribution would be less than significant and no mitigation is required.***

5.16.9 Impacts and Mitigation

Potential impacts associated with Energy and Irretrievable Resources are considered less than significant with implementation of standard building practices and compliance with local, state and federal laws and regulations, including those required under the ELSPA No. 11 guidelines. No mitigation is required.

5.16.10 Level of Significance After Mitigation

Potential impacts would be less than significant and no mitigation is required.