

5.0 ENVIRONMENTAL IMPACT ANALYSIS

23. UTILITIES AND SERVICE SYSTEMS—ENERGY

1. INTRODUCTION

This section of the Draft Environmental Impact Report (EIR) analyzes the Project's potential impacts on energy resources due to the Project's consumption of electricity, natural gas, gasoline, and diesel fuel. The analysis estimates the electricity and natural gas demand generated by the Project and evaluates whether the current and planned electrical and natural gas supplies and distribution systems can adequately meet that demand. Similarly, fuel consumption related to vehicular travel to and from the Project Site is estimated and evaluated to determine whether the Project would result in the inefficient use of transportation energy resources or create transportation energy system capacity problems. The analysis is based in part on the *Utilities Technical Report* (Utilities Report) prepared by ENVIRON International Corporation in February 2015, which is provided in **Appendix 5.23A** of this Draft EIR; will serve letters from Southern California Edison (SCE) and Southern California Gas Company (SoCalGas), dated October 15, 2014, and October 28, 2014, respectively, provided in **Appendix 5.23B** of this Draft EIR; as well as data provided by the California Energy Commission (CEC), the State's principal energy planning organization.

2. ENVIRONMENTAL SETTING

a. Regulatory Setting

(1) Federal Regulations

(a) CAFE Standards

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

(3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.¹

(2) State Regulations

(a) Senate Bill 1389

Senate Bill 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the development of and bi-annual reporting on an integrated plan for electricity, natural gas, and transportation fuels. The most recently completed report, the 2013 Integrated Energy Policy Report, addresses the State’s “loading order,” reduction of demand response, renewable energy, electricity system, progress toward its 2050 greenhouse gas (GHG) reduction goals, natural gas supplies, and the transportation sector’s contribution toward the State’s GHG emissions.^{2,3}

(b) Assembly Bill 32

Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the State to achieving year 1990 emission levels by 2020. To achieve this reduction mandate, AB 32 tasked the California Public Utilities Commission and CEC with providing information, analysis, and recommendations to the California Air Resources Board regarding ways to reduce GHG emissions in the transportation, electricity, natural gas and other utility sectors.

(c) California Energy Commission and California Energy Code

The CEC is the State’s principal energy planning commission. California Code of Regulations (CCR), Title 24, Part 6, known as the California Energy Code, contains the CEC’s 2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, effective July 1, 2014. The 2013 Building Energy Efficiency Standards focus on improving the energy efficiency of newly constructed buildings and additions and

¹ For more information on the CAFE standards, please see www.nhtsa.gov/fuel-economy, accessed December 22, 2014.

² California Energy Commission, 2013 Integrated Energy Policy Report, pp. 1-3, www.energy.ca.gov/2013_energypolicy/ accessed March 5, 2015.

³ As stated in the 2013 Integrated Energy Policy Report, “[t]he State’s loading order established by the energy agencies in 2003 calls for meeting new electricity needs first with efficiency and demand response, followed by renewable energy and distributed generation, and then with clean fossil generation.” Source: California Energy Commission, California Public Utilities Commission, and Consumer Power and Conservation Financing Authority, 2003 Energy Action Plan.

alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations.⁴

The California Green Building Standards Code (CCR, Title 24, Part 6), commonly referred to as the CALGreen Code, went into effect on January 1, 2014, with energy provisions effective July 1, 2014.⁵ The 2013 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality.⁶ Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.⁷

Published in 2009 and updated in 2011, the California Long Term Energy Efficiency Strategic Plan includes the goal that all new residential construction in California be zero net energy by 2020, and all new commercial construction in California be zero net energy by 2030.⁸ The CEC reaffirmed the adoption of this goal in its 2011 Integrated Energy Policy Report. This policy focuses on improving the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, via revisions to the California Energy Code, in order to further the CEC's goals as the State's principal energy planning commission.

(d) Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and

⁴ California Energy Commission, *2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, May 2012, www.energy.ca.gov/2012publications/CEC-400-2012-004/CEC-400-2012-004-CMF-REV2.pdf, accessed March 5, 2015.

⁵ *Id.*

⁶ *2013 California Green Building Standards Code Nonresidential Mandatory Measures*, www.documents.dgs.ca.gov/bsc/documents/2013/2013-Green-Building-Standards-Updates.pdf, accessed March 5, 2015.

⁷ *California Housing and Community Development, 2013 CALGreen Residential Mandatory Measures*, www.documents.dgs.ca.gov/bsc/documents/2013/2013-Green-Residential-Mandatory.pdf, accessed March 5, 2015.

⁸ *New Residential Zero Net Energy Action Plan*, www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/eesp/res_zne_action+plan.htm, accessed on December 18, 2014.

culminating in a 10-percent total reduction in 2020.⁹ Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.¹⁰

(e) Pavley Regulations

AB 1493 (commonly referred to as CARB's Pavley regulations) was the first legislation to regulate GHG emissions from new passenger vehicles. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks) for model years 2009–2016.¹¹ The Pavley regulations are expected to reduce GHG emissions from California's passenger vehicles by about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs.¹²

(f) CARB's Advanced Clean Cars Regulation

Closely associated with the Pavley regulations, the Advanced Clean Car Standards emissions-control program (ACC program) was approved by CARB in 2012.¹³ The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2017–2025.¹⁴ By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions. Additionally, environmentally superior cars will be available across the range of models (compacts, SUVs, pickups, and minivans) and consumer savings on fuel costs will average \$6,000 over the life of the car.¹⁵

(g) California's Renewable Portfolio Standard

First established in 2002 under Senate Bill 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from

⁹ *Low Carbon Fuel Standard: Fuels and Transportation Division Emerging Fuels and Technologies Office*, www.energy.ca.gov/low_carbon_fuel_standard/, accessed March 5, 2015.

¹⁰ *Ibid.*

¹¹ *Clean Car Standards – Pavley, Assembly Bill 1943*, http://www.energy.ca.gov/low_carbon_fuel_standard/, accessed March 5, 2015.

¹² *Ibid.*

¹³ *California's Advanced Clean Cars Program*, <http://www.arb.ca.gov/cc/ccms/ccms.htm>, accessed March 5, 2015.

¹⁴ *Ibid.*

¹⁵ *Ibid.*

eligible renewable energy resources to 33 percent of total retail sales by 2020.¹⁶ The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.¹⁷

(h) 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 meet the GHG reduction mandates established in AB 32. SB 375 specifically requires the Metropolitan Planning Organization (MPO) to prepare a "sustainable communities strategy" (SCS) as a part of its Regional Transportation Plan (RTP) that will achieve GHG emission reduction targets set by CARB for the years 2020 and 2035 by reducing vehicle miles traveled (VMT) from light-duty vehicles through the development of more compact, complete, and efficient communities.¹⁸

Here, the Project Site is located within the planning jurisdiction of the Southern California Association of Governments (SCAG). SCAG's first-ever SCS is included in the *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*, which was adopted by SCAG in April 2012. The goals and policies of the SCS that reduce VMT (and result in corresponding decreases in transportation-related fuel consumption) focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service.

(3) County Regulations

(a) County of Los Angeles General Plan

As discussed in more detail in **Section 5.11**, Land Use and Planning, of this Draft EIR, the County of Los Angeles (County) General Plan (General Plan) directs future growth and development in the County's unincorporated areas and establishes goals, policies, and objectives that pertain to the entire County. The current General Plan, adopted in 1980,

¹⁶ *RPS Program Overview*, <http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm>, accessed March 5, 2015.

¹⁷ *Ibid.*

¹⁸ *Sustainable Communities*, <http://www.arb.ca.gov/cc/sb375/sb375.htm>, accessed March 5, 2015.

includes a Conservation and Open Space Element that sets policy regarding energy resources. Relevant policies support energy conservation, encourage the development and utilization of new energy sources, and promote the use of solar energy.

As also discussed further in **Section 5.11**, Land Use and Planning, of this EIR, the County circulated a draft General Plan update, entitled Los Angeles County General Plan 2035 (Draft General Plan), in January 2014 and a Draft EIR addressing the Draft General Plan in June 2014. This Draft General Plan contains a new Conservation and Natural Resources Element that includes a section on energy, with a stated goal of sustainably managing renewable and non-renewable energy resources.

The General Plan policy consistency analysis provided in **Section 5.11**, Land Use and Planning, of this EIR indicates the Project would be consistent with relevant General Plan polices related to energy.

(b) Santa Clarita Valley Area Plan: One Valley One Vision 2012

As discussed in greater detail in **Section 5.11**, Land Use and Planning, of this Draft EIR, the recently updated Santa Clarita Valley Area Plan: One Valley One Vision 2012 (Area Plan), serves as a long-term guide for development in the Santa Clarita Valley (Valley) Planning Area over the next 20 years. The Area Plan ensures consistency between the General Plans of the County and the City of Santa Clarita (City) in order to achieve common goals. The Area Plan's Conservation and Open Space Element includes policies regarding the consistency of development proposals with the County's Green Building Program; the use of solar energy; energy-conserving building systems; appliances, and products, and landscaping and building designs that reduce energy use.

The Area Plan policy consistency analysis provided in **Section 5.11**, Land Use and Planning, of this EIR, indicates the Project would be consistent with applicable Area Plan polices related to energy.

(c) County Green Building Standards

Title 31 of the County Code, known as the Green Building Standards Code, adopts by reference the 2013 CALGreen Code, which is designed to improve public health, safety, and general welfare by utilizing design and construction methods that reduce the negative environmental impact of development and encourage sustainable construction practices.

(4) Previously Adopted Plans and Mitigation

(a) Newhall Ranch RMDP/SCP and EIS/EIR

The Project Site is included in the project area for the Applicant's Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (RMDP/SCP), shown in **Figure 3-5**, RMDP/SCP Project Area, in **Section 3.0**, Project Description, of this Draft EIR, which covers certain aspects of resource management for the Project and other nearby developments. As discussed in greater detail in **Section 4.1**, Environmental and Regulatory Setting, the RMDP component of the Newhall Ranch RMDP/SCP project is a conservation, mitigation, and permitting plan for the long-term management of sensitive biological resources and development-related infrastructure in the River and tributary drainages within the 11,999-acre Specific Plan area and along the extension of Magic Mountain Parkway through the Project Site. The SCP component of the Newhall Ranch RMDP/SCP project is a conservation and management plan to permanently protect and manage a system of preserves designed to maximize the long-term persistence of the San Fernando Valley spineflower (*Chorizanthe parryi* ssp. *Fernandina*) (spineflower), a federal candidate and state-listed endangered plant species. The SCP encompasses the Specific Plan area, the Valencia Commerce Center planning area, and the Project Site, in order to conduct conservation planning and preserve design on the Project Applicant's land holdings in Los Angeles County that contain known spineflower populations.

The Newhall Ranch RMDP/SCP project was the subject of a joint Environmental Impact Statement/Environmental Impact Report (EIS/EIR) (SCH No. 2000011025) by the U.S. Army Corps of Engineers (Corps) and the California Department of Fish and Wildlife (CDFW).^{19,20} At the time CDFW certified the EIR portion of the EIS/EIR in December 2010, it also adopted the Mitigation Monitoring and Reporting Plan (MMRP) for the RMDP/SCP project. This regulatory plan, required under CEQA, describes the mitigation measures, monitoring, and/or reporting plan for the Newhall Ranch RMDP/SCP project (including the Entrada South Project Site). CDFW adopted mitigation measures to reduce potential impacts related to energy resulting from implementation of the Newhall Ranch RMDP/SCP project (see Mitigation Measures (MMs) RMDP/SCP AQ-15 and AQ-16 and MMs RMDP/SCP GCC-3 through GCC-6 in **Appendix 2A**).

¹⁹ *Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan, Final Joint Environmental Impact Statement and Environmental Impact Report, June 2010.*

²⁰ *The California Department of Fish and Game was officially renamed the California Department of Fish and Wildlife as of January 1, 2013.*

b. Existing Conditions

(1) Electricity

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

Energy capacity, or electrical power, is generally measured in watts (W), while energy use is measured in watt-hours (Wh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is one million watts, while energy usage is measured in megawatt-hours (MWh), which is one million watt-hours, or gigawatt-hours (GWh), which is one billion watt-hours.

The Project Site is located within SCE's 50,000 square-mile service area, which includes portions of central, coastal, and southern California.²¹ SCE generates electricity from a variety of sources, including hydropower, coal, nuclear sources, and renewable resources such as wind, solar, and geothermal. In 2013, renewable resources made up 22 percent of SCE's power mix, according to their 2014 Power Content Label.²² During 2013, the most recent year for which data is available, SCE delivered 99.24 GWh of electricity to its customers.²³

²¹ Southern California Edison, *Who We Are*, [www.sce.com/wps/portal/home/about-us/who-we-are!](http://www.sce.com/wps/portal/home/about-us/who-we-are!/ut/p/b1/rVTRbslgFP2VvfSRQAe0-Fij0Xabi1Mz7UsDhSrG0qo275-rTHZ9mDVRR4INzn35J7DyYUxnMLY8L2ec6sLw1d1HXuJy3pBPxyhsDcmFIXtRx_32iEed2kFmFUAdOYEqKm_Qwh8hzGMU2NLu4CzbaqStDBWGSs046DT20FcFDv7sNs66LAowEEBvIF1Y8nnSqqtnptjlWoJZ34mCSllg8wTChDmu4DTtFVdknJPMSEzdhq7Ya6Gsf0Rbe6vARdsO8quIK0e6vaj1xoyxCjEQzQYBQFGyDsBmpxt9Da6BKhEDvpFruCs0uKf1RISOPoxFzGBU4ld0KleB4RyDgTDBAiSMcpUK2UuvkD46N6bEN9MGF3xv3q5XsdBFc46hB8WTq9I50atNBd6pe2ng3KlrDZzIFXOjWwWMXb_2HxVhpsJJ-69CfHNhNEV2-M_Nv9aAmU-ydkye3r23rpZZ5zleTlYgFjQcv91rF62wTfROKL7/dl4/d5/L2dBISEvZ0FBIS9nQSEh/) accessed November 19, 2014.

²² The Power Content Label was developed by the State to provide a snapshot of the power sources used by utilities in a given year. SCE's 2014 label provides data for 2013 as compared to statewide data for 2012. Source: Southern California Edison, "SCE Increases Its Total Renewable Energy Sources," September 4, 2014; <http://newsroom.edison.com/stories/sce-increases-its-total-renewable-energy-sources>, accessed January 23, 2015.

²³ California Energy Commission, *Energy Consumption Data Management System*, www.ecdms.energy.ca.gov/gasbyplan.aspx, accessed December 9, 2014.

SCE's Saugus and Pardee Substations are located east of Interstate 5 (I-5) in the City and distribute power throughout the Santa Clarita Valley and beyond. In April 2014, SCE announced improvements to the Saugus Substation, referred to as the Saugus System 66 kV Split Project, in order to accommodate load growth, mitigate reliability and operational issues, and comply with SCE's Transmission Planning Criteria. The project will split the existing Saugus 66 kV system into two separate systems to create a new Saugus–Haskell–Lockheed 66 kV subtransmission line circuit. This improvement is currently under construction and is expected to be completed December 31, 2017.²⁴

Existing SCE infrastructure in the immediate Project vicinity includes underground electrical lines within The Old Road, the existing segment of Magic Mountain Parkway west of The Old Road, and Westridge Parkway. To the north, a 66-kilovolt (kV)/16-kV overhead power line and associated transmission towers are located north of and parallel to State Route (SR) 126. Within the Project Site, high voltage electric transmission lines and towers traverse the southern portion of the site, and there are two pad-mounted electrical transformers and six pole-mounted electrical transformers on-site that are maintained by SCE.

As the Project Site is generally comprised of vacant land, some agricultural uses, a small plant nursery used by the adjacent Six Flags Magic Mountain, and abandoned oil wells and associated access roads, a quantitatively insignificant demand for electricity is currently generated by the existing uses.

(2) Natural Gas

Natural gas provides almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in cubic feet (cf).

The Project Site is located within SoCalGas's 20,000 square-mile service area, which includes much of central and southern California.²⁵ SoCalGas's natural gas

²⁴ Southern California Edison, *Notice of Proposed Construction, Saugus System 66 kV Split Project*, SCE Advice Letter Number 3026-E, April 18, 2014, www.sce.com/nrc/TransmissionProjects/Saugus/docs/SaugusALNotice.pdf, accessed March 5, 2015.

²⁵ Southern California Gas Company, *Company Profile*, www.socalgas.com/about-us/company-info.shtml, accessed March 5, 2015.

deliveries in 2013, the most recent year for which data is available, totaled approximately 7,676 million therms.^{26,27}

Existing SoCalGas infrastructure in the Project vicinity includes a gas distribution main that runs west from The Old Road within the southern right-of-way of SR-126. In addition, an existing 34-inch high-pressure transmission main traverses the Project Site along the southern site boundary from The Old Road westerly to Westridge Parkway and continues into the adjacent Newhall Ranch Specific Plan area. It is likely that smaller-diameter pipelines associated with past oil field operations also may be present on-site.

The existing uses on-site demand a quantitatively insignificant amount of natural gas.

(3) Transportation Energy

According to the CEC, energy consumed by transportation-related activities accounts for nearly 40 percent of California's total energy consumption and approximately 39 percent of the State's greenhouse gas emissions.²⁸ In 2013, the most recent year for which data is available, California consumed 14.53 billion gallons of gasoline and 2.74 billion gallons of diesel fuel.²⁹

Petroleum-based fuels currently account for 92 percent of California's transportation-related energy sources. However, the State is currently developing flexible strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled.

According to the CEC, gasoline consumption has declined by 6 percent since 2008 due in part to the economic recession and higher vehicle fuel efficiency. The CEC predicts

²⁶ California Energy Commission, *Energy Consumption Data Management System*, www.ecdms.energy.ca.gov/elecbyplan.aspx, accessed December 9, 2014.

²⁷ A therm is equivalent to 100,000 British Thermal Units (BTU). One BTU is the amount of energy needed to cool or heat 1 pound of water by 1 degree Fahrenheit.

²⁸ California Energy Commission, *2013 Integrated Energy Policy Report*, www.energy.ca.gov/2013_energypolicy/, accessed March 5, 2015.

²⁹ California Board of Equalization, *Net Taxable Gasoline Gallons 10 Year Report*, www.boe.ca.gov/sptaxprog/reports/MVF_10_Year_Report.pdf; and *Net Taxable Diesel Gallons 10 Year Report*, www.boe.ca.gov/sptaxprog/reports/Diesel_10_Year_Report.pdf, accessed December 9, 2014.

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 and biofuels.

3. ENVIRONMENTAL IMPACTS

a. Methodology

Analysis of the Project's energy impacts is based in part on the Utilities Report included in **Appendix 5.23A** of this Draft EIR. The report summarizes the Project's overall energy usage in light of calculations in the *Greenhouse Gas Emissions Technical Report* (GHG Report) prepared for the Project in February 2015 and included in **Appendix 5.7** of this Draft EIR.³⁰ Annual electricity and natural gas usage was calculated for the proposed uses using demand factors provided in the California Emissions Estimator Model (CalEEMod™ version 2013.2.2).³¹ CalEEMod™ provides default factors based on the 2008 Title 24 standards. As the 2013 Title 24 standards are estimated to be 25 percent more efficient for residential construction and 30 percent more efficient for non-residential construction, the CalEEMod™ default 2008 Title 24 energy intensity factors were adjusted to account for the 2013 standards.³²

The calculations assume that the renewable portion of the Project's electricity needs (per PDF ES 5.7-2, discussed below and detailed in **Section 5.7**, Greenhouse Gas Emissions, of this Draft EIR) would be supplied by locally generated sources (e.g., solar panels).

Finally, the Project's energy estimates account for the electricity needed to supply, distribute, and treat water and wastewater to/from the Project Site. As discussed in more detail in the GHG Report, this electricity usage is based on default electricity intensity factors from CalEEMod™ and water usage estimates from the *Water Supply and Demand Technical Report* (Water Report) prepared for the Project in February 2015, included in **Appendix 5.21C** of this Draft EIR.

³⁰ *The Utilities Report estimates the Project's annual electricity and natural gas usage with incorporation of the Project design features (PDFs), discussed below, as well as under a worst case scenario that assumes the PDFs would not be implemented. The Project with PDFs scenario is evaluated in this section of the Draft EIR, as all proposed PDFs will be implemented as part of the Project and enforced through the MMRP.*

³¹ *CalEEMod™ version 2013.2.2, www.caleemod.com, accessed March 5, 2015.*

³² *Information extracted from www.energy.ca.gov/releases/2012_releases/2012-05-31_energy_commission_approves_more_efficient_buildings_nr.html, accessed March 5, 2015.*

b. Project Design Elements/Project Design Features

Project development includes 339 single-family residences, 1,235 multi-family residences, and 730,000 square feet of commercial uses anticipated to be comprised of approximately 435,000 square feet of office uses and approximately 295,000 square feet of commercial retail development. It also includes a 9.4-acre elementary school site, a 27.2-acre Spineflower Preserve, a 5.6-acre public neighborhood park site, two recreational centers totaling 2.9 acres, and 101.7 acres of open space.³³ The proposed uses would be developed within the 382.3-acre Vesting Tentative Tract Map No. 53295 (VTTM 53295), while supportive facilities and infrastructure, referred to as the External Map Improvements, would be constructed within the remaining 119.1 acres to the west and north. The External Map Improvements and the undeveloped open space areas would not generate any demand for energy (following construction).

As part of the Project, electrical and natural gas distribution systems would be introduced on-site to serve proposed development. The electrical system would consist of underground electrical lines, conduits, banks, and transformers, as needed, constructed per SCE and County standards. The system would connect to the existing lines within Magic Mountain Parkway and Westridge Parkway, with service anticipated to be provided from SCE's Saugus Substation. The proposed gas system would consist of gas lines in the on-site roadways ranging in size from 2 to 8 inches and would connect to the existing 8-inch gas line in Media Center Drive. Additionally, a segment of the existing 34-inch natural gas transmission line located along the southern Project Site boundary, specifically the portion that traverses Westridge Parkway, would be relocated vertically to accommodate the extension of that roadway.

As discussed in **Section 3.0**, Project Description, of this Draft EIR, the Project would comply with the County's Green Building Standards Code (County Code Title 31), which addresses sustainability via appropriate planning and design, energy conservation, and other requirements. In addition, based on the applicable energy regulations and requirements previously discussed, the Project would implement the following regulatory compliance measures:

- All proposed buildings will comply with the Statewide 2013 Building Efficiency Standards, formally known as CCR Title 24, Part 6, with respect to standard energy usage. (*The Project shall currently meet the 2013 Title 24 standards.*)

³³ *Open space acreage refers to lots within the tract map designated as open space. Additional open space areas, such as natural drainage courses, roadway medians, and landscaped parkways adjacent to on-site roadways, in addition to the proposed park, recreation centers, and Spineflower Preserve, bring the total open space area to approximately 153 acres.*

However, the Title 24 standards are revisited by the CEC on a three-year cycle and are becoming increasingly efficient, particularly in light of the expressed desire of the CEC and California Air Resources Board to achieve zero net energy by 2020 for residential buildings and by 2030 for commercial buildings. Should an updated version of the Title 24 standards be adopted prior to the filing of building permit applications, the standards in effect at that time shall apply.)

- All grading, construction, and development within SCE, SoCalGas, or other utility easements will comply with the guidelines and requirements set forth by SCE, SoCalGas, or other utility providers, as applicable. Further, electrical or natural gas infrastructure removals or relocations, if any, shall be coordinated between the Project engineer and SCE, SoCalGas, or other utility providers, as applicable.
- The Applicant will comply with SCE Rule 15, which, among other requirements, details developer responsibilities associated with the extension of electric distribution lines. Specifically, the developer is responsible for trenching, backfilling, necessary conduits, and substructures for the installation of distribution lines.

Additionally, PDF ES 5.7-1 through PDF ES 5.7-8, detailed in **Section 5.7**, Greenhouse Gas Emissions, of this Draft EIR, would be implemented to reduce the Project's demand for electricity, natural gas, and petroleum-based fuels. To summarize, these PDFs include the following:

- Limiting fireplaces to 80 percent of residential units;
- A renewable electricity requirement for every single-family residence;
- Using solar power for the public pool at the community recreational center;
- Preparing a voluntary Community Trip Reduction (CTR) program to discourage single-occupancy vehicle trips and encourage alternative modes of transportation;
- Promoting ride-sharing in order to reduce commute trips;
- Developing and implementing a telecommuting program to reduce commute trips;
- Traffic signal coordination to improve traffic flow (i.e., reduce congestion); and
- Offering a solar energy system option to single-family home buyers.

c. Significance Thresholds

Appendix F of the CEQA Guidelines states that the potentially significant energy implications of a project should be evaluated in an EIR. Appendix F provides the following list of potential energy impacts that may be considered:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
- The effects of the project on local and regional energy supplies and on requirements for additional capacity;
- The effects of the project on peak and base period demands for electricity and other forms of energy;
- The degree to which the project complies with existing energy standards;
- The effects of the project on energy resources; and/or
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.³⁴

Based on Appendices F and G of the CEQA Guidelines and other relevant criteria, the Los Angeles County Department of Regional Planning has determined that a project would have a potentially significant impact related to energy based on the following criteria:

Threshold 5.23-1: Would the project conflict with the Los Angeles County Green Building or Drought Tolerant Landscaping ordinances (L.A. County Code Title 31)?³⁵

Threshold 5.23-2: Would the project involve the inefficient use of energy resources?

Threshold 5.23-3: Would the Project create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of

³⁴ The Project's total estimated daily vehicle trips are estimated in **Section 5.20**, Transportation/Traffic, of this Draft EIR; energy consumption associated with Project trips is accounted for the GHG analysis provided in **Section 5.7**, Greenhouse Gas Emissions.

³⁵ Although this question within the County's Initial Study Checklist references County Code Titles 21 and 22, the relevant portions of those titles are in the process of being repealed. The County's green building standards are now set forth in County Code Title 31, known as the Green Building Standards Code, which adopts by reference the 2013 CALGreen Code.

new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Aside from personal use associated with the proposed residences (i.e., for outdoor grills), propane is not anticipated to be used on-site. Therefore, the Project would not create energy utility system capacity problems relative to propane, such that impacts would be less than significant; no further discussion of Threshold 5.23-3 (with respect to propane) is provided herein.

d. Project Impacts

Threshold 5.23-1: Would the project conflict with the Los Angeles County Green Building or Drought Tolerant Landscaping ordinances (L.A. County Code Title 31)?³⁶

As discussed above, the Applicant would implement green building design and construction practices in compliance with County Code Title 31. Accordingly, the Project would incorporate the County's Green Building Standards, including compliance with the California Energy Code. Additionally, all proposed buildings would comply with the 2013 Title 24 standards with respect to standard energy usage. Furthermore, the Applicant would offer a solar energy system option to all buyers of single-family homes within the Project Site in accordance with PDF ES 5.7-8. The Project also would use solar water heaters to heat the public pool at the community recreational center per PDF ES 5.7-3, and the Applicant would produce or cause to be produced renewable electricity, or secure GHG offsets or credits from a public agency endorsed market, for single-family homes and non-residential roof area per PDF ES 5.7-2. Additional discussion of the Project's sustainability features is provided in **Section 5.7**, Greenhouse Gas Emissions, of this Draft EIR. In summary, the Project would not conflict with the County's Green Building Standards and impacts would be less than significant.

Electricity is required to convey, treat, and distribute water. Thus, reductions in water use also result in reductions in electricity consumption. In addition to complying with the County's Drought Tolerant Landscaping ordinances, the Project proposes to use recycled water for landscape irrigation purposes. As a result, the Project would not conflict with the County's Drought Tolerant Landscaping ordinance, and impacts would be less than significant.

³⁶ *Although this question within the County's Initial Study Checklist references County Code Titles 21 and 22, the relevant portions of those titles are in the process of being repealed. The County's green building standards are now set forth in County Code Title 31, known as the Green Building Standards Code, which adopts by reference the 2013 CALGreen Code..*

Threshold 5.23-2: Would the project involve the inefficient use of energy resources?

Threshold 5.23-3: Would the Project create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?³⁷

(1) Introduction

To preface the evaluation of the Project's impacts under Threshold 5.23-2, it must be noted that the State of California has a number of regulations and policies in place (as discussed above) that are constantly moving the State towards the even more environmentally efficient consumption of energy resources. For example, in concert with the U.S. Environmental Protection Agency and National Highway Safety Transportation Administration, the California Air Resources Board has adopted regulations that require the manufacturing of cleaner engine and fuel technologies in the transportation sector. Also in the transportation sector, the requirements of SB 375 will serve to reduce the consumption of fuel-based resources because SB 375 requires regional transportation agencies to develop plans that modify land use and transportation patterns, all of which are intended to reduce VMT. Additionally, the State has a Renewable Portfolio Standard that requires its energy providers (such as SCE) to increase the percentage of sources in its energy portfolios that qualify as renewable sources, thereby allowing for California to more cleanly consume energy. The CEC has expressed a commitment to enhance the efficiency standards of the Title 24 standards to the point where new residential buildings achieve net zero energy consumption by 2020, and new non-residential buildings achieve net zero energy consumption by 2030. In short, by regulatory design, the State of California has a demonstrated policy commitment to avoiding the inefficient consumption of energy resources.

(2) Construction

During Project construction, energy would be consumed in three general forms: (1) petroleum-based fuels used to power off-road construction vehicles and equipment on the Project Site, for the delivery of construction materials and equipment, as well as for construction worker travel to and from the Project Site; (2) electricity associated with water use during Project construction for dust control (water supply and conveyance); and (3) natural gas used during installation and testing of the on-site natural gas distribution system. The types of construction activities anticipated for the Project are common for the

³⁷ Please refer to earlier discussion; no further analysis of Threshold 5.23-3 with respect to propane is provided herein.

area and would not include unusual circumstances requiring substantially high energy usage. A summary of energy use during construction is provided in **Table 5.23-1, Summary of Energy Use During Entrada South Construction and Operations**, below.

**Table 5.23-1
Summary of Energy Use During Entrada South Construction
and Operations**

	Unit	Project
Project Construction		
Electricity		
Water Consumption	kWh/Year	420,070
Total	kWh/Year	420,070
Gasoline		
On-Road	Gallons	277,216
Off-Road	Gallons	0
Total	Gallons	277,216
Diesel		
On-Road	Gallons	93,045
Off-Road	Gallons	301,673
Total	Gallons	394,718
Project Operations		
Electricity		
Building	kWh	18,677,132
Water	kWh	4,263,296
Total	kWh	22,940,428
Natural Gas		
Building	MMBTU/Year	32,488
Total	MMBTU/Year	32,488
Mobile		
Gasoline	Gallons	5,072,042
Diesel	Gallons	935,991
Total	Gallons	6,008,033
<hr/> <i>Source: ENVIRON and Eyestone Environmental, 2015.</i>		

(a) Electricity

Project construction activities would require electricity to serve construction trailers, power tools, tool sheds, work and storage areas, and other facilities associated with development activities. In addition, as described above, electricity would be consumed for

the conveyance of water used during construction activities to control fugitive dust. This electricity would come from temporary service via SCE's existing electrical lines within Magic Mountain Parkway or Westridge Parkway and/or portable generators. Electricity consumed during Project construction would be temporary and nominal, would cease upon completion of construction, and would vary depending on site-specific operations and the amount of construction occurring at any given time. Overall, construction activities associated with the Project would require limited electricity generation that would not be expected to have an adverse impact on available electricity supplies. The use of electricity during Project construction would not be wasteful, inefficient, or unnecessary.

Construction of the proposed electrical system would occur entirely within the Project Site and is not anticipated to adversely affect surrounding uses or existing electrical infrastructure. As indicated earlier, electricity would be provided to the Project Site by extending the existing lines in Magic Mountain Parkway and Westridge Parkway. The on-site electrical system would consist of underground electrical lines, conduits, banks, and transformers, as needed. Where feasible, the new service installations and connections would be scheduled to minimize electrical service interruptions to other properties. Compliance with SCE's guidelines and requirements, including SCE Rule 15, would ensure the Project Applicant fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations with SCE, and limits any impacts associated with grading, construction, and development within SCE easements. Project construction impacts, including those associated with installation of the new electrical infrastructure on-site, are evaluated throughout this Draft EIR in each of the Environmental Impact Analysis sections (e.g., **Section 5.3**, Air Quality; **Section 5.13**, Noise; and **Section 5.20**, Traffic, Access, and Parking). However, the impacts identified therein are not necessarily due specifically to the construction of new electrical facilities.

Overall, the Project's construction activities would not create electrical system capacity problems, create problems with the provision of electrical service, or result in a significant impact associated with the construction of new or expanded electricity facilities. Therefore, the Project's construction impacts with respect to electricity would be less than significant.

(b) Natural Gas

The construction of buildings and infrastructure typically does not involve the consumption of natural gas. Therefore, natural gas would not be supplied to support Project construction activities, and there would be no temporary demand generated during Project construction.

Construction of the proposed natural gas system would occur entirely within the Project Site and is not anticipated to adversely affect surrounding uses or existing natural gas infrastructure. As previously discussed, natural gas would be provided to the Project Site via connection to the existing gas line in Media Center Drive. The on-site gas system would consist of gas lines in the on-site roadways ranging in size from 2 to 8 inches. Additionally, while the existing 34-inch natural gas transmission line located along the southern Project Site boundary would remain in place, the segment that traverses Westridge Parkway would be relocated vertically to accommodate the extension of that roadway. Where feasible, the new service installations and connections would be scheduled to minimize gas service interruptions to other properties. Compliance with SoCalGas's guidelines and requirements would ensure the coordination of any natural infrastructure removals or relocations with SoCalGas and limit any impacts associated with grading, construction, and development within SoCalGas easements. Project construction impacts, including those associated with installation of the new natural gas infrastructure on-site, are evaluated throughout this Draft EIR in each of the Environmental Impact Analysis sections. However, the impacts identified therein are not necessarily due specifically to the construction of new gas facilities.

As such, the Project's construction activities would not create natural gas system capacity problems, create problems with the provision of natural gas service, or result in a significant impact associated with the construction of new or expanded natural gas facilities. Therefore, the Project's construction impacts with respect to natural gas would be less than significant.

(c) Transportation Energy

The petroleum-based fuel use summary provided in **Table 5.23-1**, Summary of Energy Use During Entrada South Construction and Operations, represents the highest amount of transportation energy potentially consumed during Project construction. As shown, on- and off-road vehicles would consume an estimated 277,216 gallons of gasoline and 394,718 gallons of diesel fuel throughout the Project's entire construction period. However, the consumption of such resources would be temporary, would cease upon the completion of construction, and would be subject to mitigation measures designed to reduce the consumption of energy resources, such as those presented in **Section 5.3**, Air Quality, of this Draft EIR. Compliance with these mitigation measures would reduce the Project's reliance on petroleum-based fuels during construction activities and, therefore, the Project's consumption of petroleum-based fuels.

While it is difficult to measure the amount of energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all

reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Therefore, the Project's on-site construction activities would not result in the inefficient use of transportation energy resources, create transportation energy system capacity problems, create problems with the provision of transportation energy services, or result in a significant impact associated with the construction of new or expanded transportation energy facilities. As such, the Project's construction-related transportation energy impacts would be less than significant.

(3) Operation

During operation of the Entrada South Project, energy would be consumed for multiple purposes including, but not limited to, vehicle trips, water usage, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, electronics, office equipment, and commercial machinery (including kitchen appliances). An analysis of the Project's energy consumption related to these sources is presented below under separate subheadings.

(a) Electricity

As previously discussed, the Project Applicant would incorporate compliance measures to address applicable energy requirements. Specifically, the proposed buildings would comply with 2013 Title 24 standards, and the Applicant would implement green building design and construction practices in compliance with the County's Green Building Ordinance. In addition, the Applicant would offer a solar energy system option to all buyers of single-family homes within the Project Site per PDF ES 5.7-8. The Project would also use solar water heaters to heat the public pool at the community recreational center per PDF ES 5.7-3, and the Applicant would produce or cause to be produced renewable electricity, or secure GHG offsets or credits from a public agency endorsed market, for single-family homes and non-residential roof area per PDF ES 5.7-2. Taking into account these measures, the Project's total electrical demand is estimated as approximately 22,940,428 kWh per year (22.94 GWh per year), as shown in **Table 5.23-1**, Summary of Energy Use During Entrada South Construction and Operations.

The availability of electricity depends upon adequate generation capacity and fuel supplies. The CEC analyzes energy usage throughout the State and publishes a demand forecast staff report every few years, the most recent of which covers the 2014–2024 period. The CEC estimates electricity consumption within SCE's planning area will be

109,206 GWh in 2024 (i.e., the Project buildout year).³⁸ Based on the Project's estimated electrical consumption of 22.94 GWh per year, the Project would account for approximately 0.02 percent of the 2024 demand forecasted in SCE's planning area. As the proposed uses are consistent with the land use and zoning designations within the Project Site (as discussed in detail in **Section 5.11**, Land Use, of this Draft EIR) and given the low percentage of total demand the Project represents, the demand forecasts likely account for Project development. Thus, the use of renewable and non-renewable resources would be on a relatively small scale and would be consistent with regional and local growth expectations for the Project area. SCE's will serve letter further indicates the Project's estimated power needs can be met both in terms of off-site system capacity and electricity supply. In addition, unimpaired access to on-site SCE facilities would be maintained within the Project Site.

While operation of the Project would increase overall electricity use on the Project Site, usage would be reduced through implementation of the aforementioned regulatory compliance measures (e.g., Title 24 standards and the County Code) and PDFs. Therefore, operation of the Project would not result in the inefficient use of electricity resources, create electricity system capacity problems, create problems with the provision of electricity services, or result in a significant impact associated with the construction of new or expanded electricity facilities. Additionally, the Project would not conflict with an adopted energy conservation plan. Furthermore, as mentioned above, SCE's 2014 Power Content Label indicates that renewable energy made up 22 percent of the total power mix in 2013. This percentage is higher than the 15 percent renewable energy in the State of California's overall power mix in 2012 and indicates SCE's progress towards meeting the state goal of providing 33 percent renewables of the total electricity delivered to customers by the year 2020. This means that, on average, 22 percent of the Project's energy demand would be provided by renewable energy. As such, electricity impacts would be less than significant.

(b) Natural Gas

As previously discussed, the Project Applicant would incorporate compliance measures to address applicable energy requirements. Specifically, the proposed buildings would comply with 2013 Title 24 standards, and the Applicant would implement green

³⁸ *The California Energy Commission's forecast includes three scenarios: a high energy demand case, a low energy demand case, and a mid energy demand case. The consumption forecast for the low energy demand case is used in this calculation to provide a conservative analysis of the Project (i.e., the Project would represent a greater percentage of overall demand under this scenario). California Energy Commission, Commission Final Report, California Energy Demand 2014–2024 Final Forecast, January 2014, p. A-3, www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-SD-V1.pdf, accessed March 5, 2015.*

building design and construction practices in compliance with the County's Green Building Ordinance. In addition, fireplaces (gas-burning) would be limited to 80 percent of all residential units, and solar water heaters (rather than natural gas-powered) would be used to heat the public pool at the community recreational center in accordance with PDF ES 5.7-1 and PDF ES 5.7-3, respectively. Taking into account these measures, the Project's total natural gas demand is estimated as approximately 32,488 million British Thermal Units (BTU) per year (324,958 therms), as shown in **Table 5.23-1**, Summary of Energy Use During Entrada South Construction and Operations.³⁹

The CEC's staff demand forecast for the 2014–2024 period estimates that natural gas consumption within SoCalGas's planning area will increase to 7,275 million therms in 2024.⁴⁰ Based on the Project's estimated natural gas consumption of 324,958 therms per year, the Project would account for approximately 0.004 percent of the 2024 demand forecasted in SoCalGas's planning area. As the proposed uses are generally consistent with the land use and zoning designations within the Project Site (as discussed in detail in **Section 5.11**, Land Use, of this Draft EIR) and given the low percentage of total demand the Project represents, the demand forecasts likely account for Project development. Thus, the use of renewable and non-renewable resources would be on a relatively small scale and would be consistent with regional and local growth expectations for the Project area. SoCalGas's will serve letter further indicates the Project's estimated gas needs can be met both in terms of off-site system capacity and natural gas supply.

While operation of the Project would increase overall natural gas use on the Project Site, usage would be reduced through implementation of the aforementioned regulatory compliance measures (e.g., Title 24 standards and the County Code) and PDFs. Therefore, operation of the Project would not result in the inefficient use of natural gas resources, create natural gas system capacity problems, create problems with the provision of natural gas services, or result in a significant impact associated with the construction of new or expanded natural gas facilities. Additionally, the Project would not conflict with an adopted energy conservation plan. As such, natural gas impacts would be less than significant.

³⁹ One BTU is the amount of energy needed to cool or heat 1 pound of water by 1 degree Fahrenheit.

⁴⁰ The California Energy Commission's forecast includes three scenarios: a high energy demand case, a low energy demand case, and a mid energy demand case. The consumption forecast for the low energy demand case is used in this calculation to provide a conservative analysis of the Project (i.e., the Project would represent a greater percentage of overall demand under this scenario). California Energy Commission, Commission Final Report, California Energy Demand 2014–2024 Final Forecast, January 2014, p. 63, www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-SD-V1.pdf, accessed March 5, 2015.

(c) Transportation Energy

The Project would result in the consumption of fuel related to vehicular travel to and from the Project Site. At buildout, as shown in **Table 5.23-1, Summary of Energy Use During Entrada South Construction and Operations**, the Project would consume approximately 5.072 million gallons of gasoline per year and 0.936 million gallons of diesel fuel, or a total of approximately 6.008 million gallons of petroleum-based fuels per year. PDFs that would reduce the consumption of petroleum-based fuels include features that would reduce vehicle miles traveled, including a proper mix of land uses, the provision of jobs, design for future transit uses, provision of open space and recreation, and connectivity (trails). Additionally, the Project includes a transportation demand management (TDM) program detailed in PDF ES 5.7-4 through PDF ES 5.7-6 in **Section 5.7, Greenhouse Gas Emissions**, of this Draft EIR, which include measures to encourage carpooling, ride-matching, bike facilities, and telecommuting. Additionally, as discussed in **Section 5.7, Greenhouse Gas Emissions**, of this Draft EIR, the Project is consistent with the adopted Sustainable Communities Strategy for the region, which further evidences that the vehicle miles traveled associated with development on the Project Site is consistent the State's long-term policy goal of reducing vehicles miles traveled, reducing GHG emissions, and reducing the consumption of fuel-based resources.

Thus, while operation of the Project would increase transportation energy use on the Project Site, such usage would be reduced through implementation of regulatory compliance measures and PDFs. Therefore, operation of the Project would not result in the inefficient use of transportation energy resources, create transportation energy system capacity problems, or result in a significant impact associated with the construction of new or expanded transportation energy facilities. As such, impacts would be less than significant.

4. CUMULATIVE IMPACTS

The geographic context for the cumulative impact analysis of electricity is SCE's service area; the geographic context for the cumulative impact analysis of natural gas is SoCalGas's service area; and the geographic context for the cumulative impact analysis of transportation energy is the State of California with respect to transportation fuel consumption and the five county SCAG region with regard to development patterns and their influence on transportation energy consumption. Anticipated growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure.

(1) Electricity

Buildout of the Project and other future development projects in SCE's service area is expected to increase electricity consumption and thus cumulatively increase the need for electricity supplies and infrastructure capacity. The CEC estimates electricity consumption within SCE's planning area will be 109,206 GWh in 2024 (i.e., the Project buildout year). As previously indicated, the Project would account for approximately 0.02 percent of the 2024 demand forecasted in SCE's planning area. Each related project would likewise be anticipated to represent a limited proportion of overall demand. As such forecasts generally take into account projected population growth and development based on local and regional plans, many if not all of the related projects (as well as the Project itself) are likely accounted for in the statewide forecasts. Although future development projects would result in the irreversible use of renewable and non-renewable electricity resources which could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with regional and local growth expectations for SCE's service area. Furthermore, like the Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the County's Green Building Standards Code and state energy standards under Title 24, as appropriate, and incorporate mitigation measures, as necessary. Accordingly, the Project's contribution to cumulative impacts related to electricity consumption would be less than significant.

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by SCE are ongoing. It is expected that SCE would continue to expand delivery capacity as needed to meet demand increases within its service area. Development projects within its service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary. As such, cumulative impacts with respect to electricity infrastructure would be less than significant.

(2) Natural Gas

Buildout of the Project and other future development projects in SoCalGas's service area is expected to increase natural gas consumption and thus cumulatively increase the need for natural gas supplies and infrastructure capacity. The CEC estimates natural gas consumption within SoCalGas's planning area will increase to 7,275 million therms in 2024. As previously indicated, the Project would account for approximately 0.004 percent of the 2024 demand forecasted in SoCalGas's planning area. Each related project would likewise be anticipated to represent a limited proportion of overall demand. As such forecasts generally take into account projected population growth and development based on local and regional plans, many if not all of the related projects (as well as the Project itself) are likely accounted for in the statewide forecasts. Although future development projects would result in the irreversible use of renewable and non-renewable electricity resources which

could limit future availability, the use of such resources would be on a relatively small scale and would be consistent with regional and local growth expectations for SoCalGas's service area. Furthermore, like the Project, other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including the County's Green Building Standards Code and state energy standards under Title 24, as appropriate, and incorporate mitigation measures, as necessary. Accordingly, the Project's contribution to cumulative impacts related to natural gas consumption would be less than significant.

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 as necessary to meet demand increases within its service area. Development projects within its service area would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. As such, cumulative impacts with respect to natural gas infrastructure would be less than significant.

(3) Transportation Energy

Buildout of the Project and related projects is expected to increase transportation energy consumption during construction and operation and, thus, cumulatively increase the need for energy for transportation-related uses. The State of California consumed 14.53 billion gallons of gasoline and 2.74 billion gallons of diesel fuel in 2013. As described above, at buildout the Project would consume a total of approximately 5.072 million gallons of gasoline and 935,991 gallons of diesel fuel per year. Thus, the Project would account for approximately 0.03 percent of existing transportation-related energy consumption in the State. Each related project would likewise be anticipated to represent a small proportion of overall demand. As described above, petroleum currently accounts for 92 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled which would reduce reliance on petroleum fuels. According to the CEC, gasoline consumption 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. Furthermore, like the Project, other future development projects would be expected to reduce vehicle miles traveled by encouraging the use of alternative modes of transportation and other design features that promote vehicle miles traveled reductions. Thus, while there would be an increase in the consumption of petroleum-based fuels, the Project's contribution to cumulative impacts related to transportation energy consumption would not be cumulatively considerable and, thus, would be less than significant.

SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy focuses on creating livable communities with an emphasis on sustainability and integrated planning and identifies mobility, economy, and sustainability as the three principles most critical to the future of the region. In addition to these benefits, implementation of these strategies will result in a reduction of vehicle miles traveled and a reduction in transportation fuel consumption.

The 2012–2035 RTP/SCS incorporates land use data and growth projections for the SCAG region that focus on where growth should occur in order to achieve the goals and objectives of the RTP/SCS. The Project's land use characteristics were compared to the land use and household assumptions within the 2012–2035 RTP/SCS for the Project Applicant's "Westside" area, which is generally located west of I-5 and defined as including the Newhall Ranch Specific Plan area and the adjacent Entrada South, Entrada North, Legacy Village, and Valencia Commerce Center areas. Based on this analysis (see Appendix I of the Air Quality Technical Report, provided in Appendix 5.3 of this Draft EIR), the total amount of development planned within the Project Applicant's Westside area, including all known planned and proposed development projects plus existing land uses, is consistent with the growth patterns forecasted in the 2012–2035 RTP/SCS, which will achieve the objectives of the plan and result in a reduction of vehicle miles traveled, as well as transportation fuel consumption.

Further, the Project would accommodate regional growth projected by SCAG in the Santa Clarita Valley Planning Area and northern Los Angeles County within an infill site that is adjacent to existing, approved, and planned infrastructure, urban services, transportation corridors, transit facilities, and major employment centers in furtherance of SB 375 policies. In addition, the Project would implement 2012–2035 RTP/SCS policies by creating a complete mixed-use community comprised of mutually supportive land uses that offer housing, employment, shopping, recreation, and other community-serving activities and opportunities. All of these attributes individually, and collectively, would serve to reduce vehicle miles traveled and associated transportation fuel consumption. It is also anticipated that cumulative development would incorporate these attributes to varying degrees and in so doing would also reduce vehicle miles traveled and associated transportation fuel consumption on a cumulative basis. Based on the analyses presented above, cumulative transportation energy impacts would be less than significant.

(4) Conclusion

Project construction and operations would result in an increase in the consumption of electricity, natural gas, and transportation energy. As discussed above, the Project's energy usage would be reduced through implementation of regulatory compliance measures and PDFs. Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, and

transportation) would not result in the inefficient use of energy resources, create energy utility system capacity problems, create problems with the provision of energy services, or result in a significant impact associated with the construction of new or expanded energy facilities. As such, the Project's impacts would not be cumulatively considerable, and therefore, the Project's cumulative energy impacts are concluded to be less than significant.

5. MITIGATION MEASURES

a. Newhall Ranch RMDP/SCP Mitigation Measures

The Newhall Ranch RMDP/SCP EIS/EIR did not specifically address energy impacts, as they were previously determined to be less than significant and did not warrant further analysis. Thus, no mitigation measures were required.

However, in conjunction with the air quality and global climate change analyses, CDFW previously adopted mitigation measures to ensure implementation of the Project Applicant's design commitments intended to reduce energy consumption in connection with its adoption of the Newhall Ranch RMDP/SCP EIS/EIR. A number of these RMDP/SCP mitigation measures also apply to the Project, specifically MMs RMDP/SCP AQ-15 and AQ-16 and MMs RMDP/SCP GCC-3 through GCC-6. Refer to **Section 5.3**, Air Quality, and **Section 5.7**, Greenhouse Gas Emissions, of this Draft EIR for further discussion.

b. Entrada South Project-Level Mitigation Measures

With implementation of the referenced PDFs from **Section 5.7**, Greenhouse Gas Emissions, of this Draft EIR, compliance with applicable regulatory requirements, and the mitigation measures identified in **Section 5.3**, Air Quality, and **Section 5.7**, Greenhouse Gas Emissions, of this Draft EIR, Project-level impacts with regard to energy would be less than significant. Therefore, no Project-specific mitigation measures would be required. Cumulative energy impacts also would be less than significant, and no mitigation measures would be required.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the regulatory compliance measures, PDFs, and mitigation measures referenced above, Project-level impacts with respect to energy would be less than significant. In addition, cumulative energy impacts would be less than significant.