

4.6 ENERGY

The following setting and impact discussion is based, in part, on the *Energy Impact Assessment* prepared for the DRSP (AMBIENT 2022; EIR Appendix F). The *Energy Impact Assessment* includes an in-depth assessment of existing conditions related to energy, pertinent regulatory framework, and potential energy impacts associated with the proposed project.

4.6.1 Existing Conditions

4.6.1.1 Regional Conditions

4.6.1.1.1 ENERGY FUNDAMENTALS

Energy use is typically associated with transportation, construction, and the operation of land uses. Transportation energy use is generally categorized by direct and indirect energy. Direct energy relates to energy consumption used to operate a vehicle. Indirect energy relates to the long-term indirect energy consumption of equipment, such as maintenance activities. Energy is also consumed by construction and routine operation and maintenance of land use. Construction energy relates to a direct one-time energy expenditure primarily associated with the consumption of fuel use to operate construction equipment. Energy related to land use is normally associated with direct energy consumption for heating, ventilation, and air conditioning (HVAC) of buildings.

4.6.1.1.2 ENERGY RESOURCES

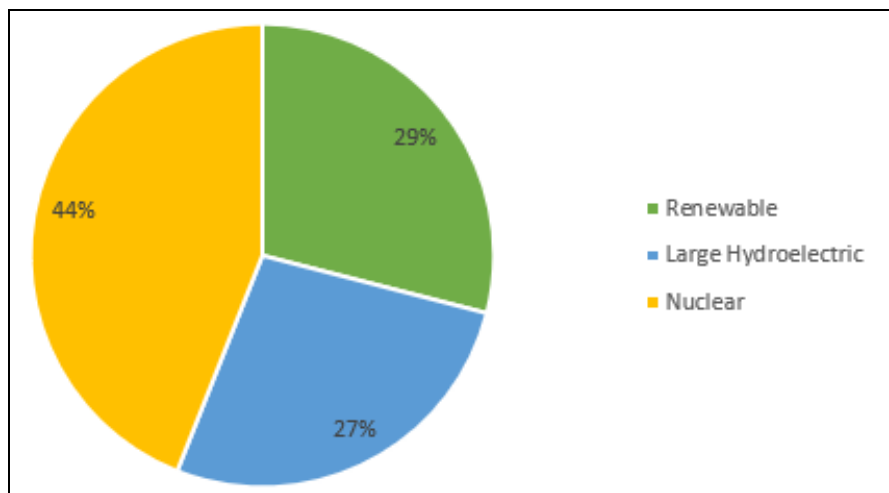
Energy sources for the community of Nipomo primarily include electricity provided by the Pacific Gas and Electric Company (PG&E) ~~and Central Coast Community Energy (3CE)~~ and natural gas provided by ~~PG&E~~ and the Southern California Gas Company (SoCalGas). Energy resources consist largely of natural gas, nuclear, fossil fuels, hydropower, solar, and wind. The primary use of energy sources is for electricity to operate buildings.

4.6.1.1.3 ELECTRICITY AND NATURAL GAS PROVIDERS

Pacific Gas & Electric Company

PG&E energy generation was supplied from approximately 29% of renewable energy sources (i.e., biomass and waste, geothermal, small hydroelectric, solar, and wind), 27% of large hydroelectric sources, and 44% of nuclear sources (AMBIENT 2022). Participation in PG&E as an electricity provider is mandatory. The breakdown of PG&E's power mix is shown in Figure 4.6-1.

PG&E offers two programs through which consumers may purchase electricity from renewable sources: the Solar Choice program and the Regional Renewable Choice program. Under the Solar Choice program, a customer remains on their existing electric rate plan and pays a modest additional fee on a per kilowatt-hour (kWh) basis for clean solar power. The fee depends on the type of service, rate plan, and enrollment level. Customers may choose to have 50% or 100% of their monthly electricity usage to be generated via solar projects. The Regional Renewable Choice program enables customers to subscribe to renewable energy from a specific community-based project within PG&E's service territory. The Regional Renewable Choice program allows a customer to purchase between 25% and 100% of their annual usage from renewable sources.

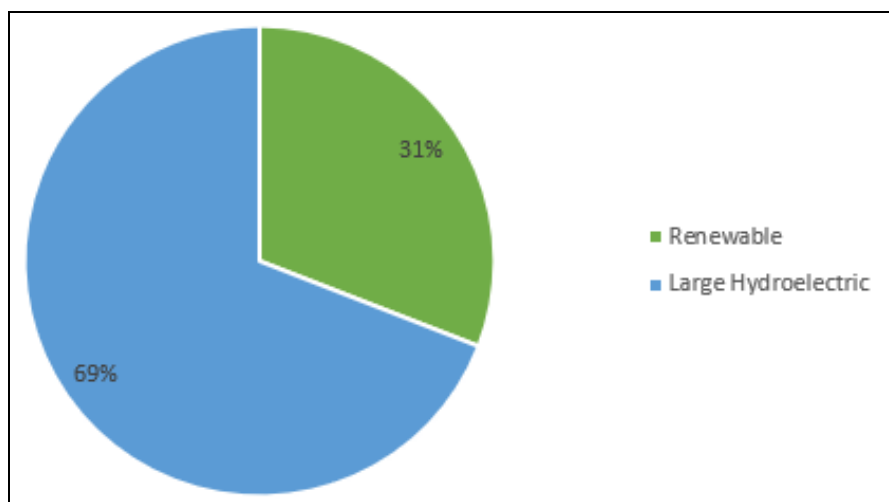


Source: PG&E (2020)

Figure 4.6-1. PG&E 2019 power mix.

Central Coast Community Energy

3CE is a locally controlled public agency supplying clean and renewable electricity for residents and businesses in Monterey, San Benito, parts of San Luis Obispo, Santa Barbara, and Santa Cruz Counties. 3CE is based on a local energy model called Community Choice Energy that partners with the local utility (i.e., PG&E), which continues to provide consolidated billing, electricity transmission and distribution, customer service, and grid maintenance services. 3CE provides customers with a choice for clean and renewable energy and community reinvestment through rate benefits and local GHG-reducing energy programs for residential, commercial, and agricultural customers. Participation in 3CE as an electricity provider is voluntary (AMBIENT 2022); the County has not opted into 3CE as of the date of this EIR. 3CE energy generation was supplied from approximately 31% of renewable energy sources (i.e., biomass and waste, geothermal, small hydroelectric, solar, and wind) and 69% of large hydroelectric sources. The breakdown of 3CE power mix is shown in Figure 4.6-2.



Source: 3CE (2020)

Figure 4.6-2. 3CE 2019 power mix.

Natural Gas

Natural gas services in the community of Nipomo are purchased from PG&E and SoCalGas. ~~PG&E's natural gas system encompasses approximately 70,000 square miles in northern and central California. Natural gas throughput provided by PG&E totals approximately 2.6 billion cubic feet per day.~~ SoCalGas's natural gas system encompasses approximately 20,000 square miles in southern California. Natural gas throughput provided by SoCalGas totals approximately 2.8 billion cubic feet per day (AMBIENT 2022).

4.6.1.2 Local Setting

4.6.1.2.1 CLIMATE

The project is located in the community of Nipomo, which is an unincorporated community within San Luis Obispo County. The project area experiences a hot-summer Mediterranean climate, with an annual normal precipitation of approximately 16.10 inches. Temperatures in the project area range from an average minimum of approximately 38.7°F in January to an average maximum of 75.4°F in September (AMBIENT 2022; see EIR Appendix F).

4.6.1.2.2 EXISTING INFRASTRUCTURE

The Specific Plan Area is currently undeveloped and is not provided electricity or natural gas. There are existing PG&E overhead power lines that run along Cherokee Place to the north, Pomeroy Road to the west, and the eastern edge of the Specific Plan Area; however, there are no existing gas mains located within the Specific Plan Area. The Specific Plan Area would be provided electricity by PG&E and natural gas by SoCalGas.

4.6.1.3 Off-Site Improvements

Existing proximate transportation facilities (e.g., traffic signals) and NCSO water and wastewater system infrastructure use energy in the form of electricity, which is provided by PG&E.

4.6.2 Regulatory Setting

4.6.2.1 Federal

4.6.2.1.1 REGULATIONS FOR GREENHOUSE GAS EMISSIONS FROM PASSENGER CARS AND TRUCKS AND CORPORATE AVERAGE FUEL ECONOMY STANDARDS

In October 2012, the USEPA and National Highway Traffic Safety Administration (NHTSA), on behalf of the U.S. Department of Transportation (USDOT), issued final rules to further reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond. NHTSA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon (mpg), limiting vehicle emissions to 163 grams of carbon dioxide (CO₂) per mile for the fleet of cars and light-duty trucks by the model year 2025.

In January 2017, USEPA Administrator Gina McCarthy signed a Final Determination to maintain the current GHG emissions standards for the model year 2022 to 2025 vehicles. However, on March 15, 2017, USEPA Administrator Scott Pruitt and USDOT Secretary Elaine Chao announced that the USEPA intends to reconsider the Final Determination. On April 2, 2018, USEPA Administrator Pruitt officially withdrew the January 2017 Final Determination, citing information that suggests that these current standards may be too stringent due to changes in key assumptions since the January 2017 Determination. According to the USEPA, these key assumptions include gasoline prices and overly optimistic consumer acceptance of advanced technology vehicles. The April 2, 2018, notice is not USEPA's final agency action. The USEPA intends to initiate rulemaking to adopt new standards. Until that rulemaking has been completed, the current standards remain in effect.

4.6.2.1.2 ENERGY POLICY AND CONSERVATION ACT

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the United States would meet certain fuel economy goals. Through this act, U.S. Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the NHSTA, which is part of the USDOT, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States. The CAFE program, administered by the USEPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The USEPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

4.6.2.1.3 ENERGY POLICY ACT OF 1992

The Energy Policy Act (EPAct) of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

4.6.2.1.4 ENERGY POLICY ACT OF 2005

The Energy Policy Act of 2005 was signed into law on August 8, 2005. Generally, the act provides for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

4.6.2.2 State

4.6.2.2.1 WARREN-ALQUIST ACT

The Warren-Alquist Act of 1975 established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The act established

a state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately owned utilities in the energy, rail, telecommunications, and water fields.

4.6.2.2.2 CALIFORNIA ASSEMBLY BILL 32: CLIMATE CHANGE SCOPING PLAN AND UPDATE

In October 2008, the CARB published the *Climate Change Scoping Plan*, which is the state's plan to achieve GHG reductions in California required by AB 32. This initial Scoping Plan contained the main strategies to be implemented in order to achieve the target emission levels identified in AB 32. The Scoping Plan included CARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the Low Carbon Fuel Standard program, implementing energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

The initial Scoping Plan was first approved by the CARB on December 11, 2008, and is updated every 5 years. The *First Update to the Climate Change Scoping Plan* was approved by the CARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030–2035) on the road to reach the 2050 goals (CARB 2014). The most recent update released by the CARB is *California's 2017 Climate Change Scoping Plan*, which was released in November 2017. The measures identified in the 2017 Scoping Plan have the co-benefit of increasing energy efficiency and reducing California's dependency on fossil fuels.

4.6.2.2.3 CALIFORNIA ASSEMBLY BILL 1007: STATE ALTERNATIVE FUELS PLAN

AB 1007 (Chapter 371, Statutes of 2005) required the CEC to prepare a state plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels (SAF) Plan in partnership with the CARB and in consultation with other federal, state, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing significant degradation of public health and environmental quality.

4.6.2.2.4 CALIFORNIA ASSEMBLY BILL 2076: REDUCING DEPENDENCE ON PETROLEUM

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), the CEC and CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20% of on-road transportation fuel use by 2020 and 30% by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita vehicle miles traveled (VMT) (CARB 2003). Further, in response to the CEC's 2003 and 2005 Integrated Energy Policy Reports, Governor Davis directed the CEC to take the lead in developing a long-term plan to increase alternative fuel use. A performance-based goal of AB 2076 was to reduce petroleum demand to 15% below 2003 demand by 2020.

4.6.2.2.5 CALIFORNIA SENATE BILL 350: CLEAN ENERGY AND POLLUTION PREVENTION REDUCTION ACT OF 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50% by December 31, 2030. This act also requires a doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

4.6.2.2.6 CALIFORNIA SENATE BILL 375

SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt an SCS or alternative planning strategy (APS) that will address land use allocation in that MPO's RTP. The CARB, in consultation with MPOs, establishes regional reduction targets for GHGs emitted by passenger cars and light trucks for the years 2020 and 2035. These reduction targets will be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. The CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, funding for transportation projects may be withheld.

4.6.2.2.7 CALIFORNIA SENATE BILL 1078: CALIFORNIA RENEWABLES PORTFOLIO STANDARD PROGRAM

SB 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum of 20% of their supply from renewable sources by 2017. This bill will affect statewide GHG emissions associated with electricity generation. In 2008 Governor Schwarzenegger signed Executive Order (EO) S-14-08, which set the Renewables Portfolio Standard (RPS) target to 33% by 2020. It directed state government agencies and retail sellers of electricity to take all appropriate actions to implement this target. EO S-14-08 was later superseded by EO S-21-09 on September 15, 2009. EO S-21-09 directed the CARB to adopt regulations requiring 33% of electricity sold in the state to come from renewable energy by 2020. Statute SB X1-2 superseded this executive order in 2011, which obligated all California electricity providers, including investor-owned utilities and publicly owned utilities, to obtain at least 33% of their energy from renewable electrical generation facilities by 2020. The State's Clean Energy Standards, adopted in 2018, require the state's utilities to generate 100% clean electricity by 2045 and to increase the States RPS requirements to 60% by 2030 (refer to SB 100).

4.6.2.2.8 CALIFORNIA SENATE BILL 32 AND ASSEMBLY BILL 197 OF 2016

SB 32, signed by Governor Brown on September 8, 2016, effectively extends California's GHG emission-reduction goals from 2020 to 2030. This new emission-reduction target of 40% below 1990 levels by 2030 is intended to promote further GHG reductions in support of the state's ultimate goal of reducing GHG emissions by 80% below 1990 levels by 2050. SB 32 also directs the CARB to update the Climate Change Scoping Plan to address this interim 2030 emission-reduction target. Achievement of these goals will have the co-benefit of increasing energy efficiency and reducing California's dependency on fossil fuels.

4.6.2.2.9 CALIFORNIA EXECUTIVE ORDER S-06-06

EO S-06-06, signed on April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The executive order establishes the following target to

increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20% of its biofuels within California by 2010, 40% by 2020, and 75% by 2050. The executive order also calls for the state to meet a target for use of biomass electricity. The *2011 Bioenergy Action Plan* identifies those barriers and recommends actions to address them so that the state can meet its clean energy, waste reduction, and climate protection goals. The *2012 Bioenergy Action Plan* updates the 2011 plan and provides a more detailed action plan to achieve the following goals:

- increase environmentally and economically sustainable energy production from organic waste;
- encourage the development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications;
- create jobs and stimulate economic development, especially in rural regions of the state; and
- reduce fire danger, improve air and water quality, and reduce waste.

In 2019, 2.87% of the total electrical system power in California was derived from biomass (CEC 2020).

4.6.2.2.10 CALIFORNIA EXECUTIVE ORDER B-48-18: ZERO EMISSION VEHICLES

In January 2018, Governor Brown signed EO B-48-18, which required all state entities to work with the private sector to put at least 5 million zero-emission vehicles (ZEVs) on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 zero-emissions chargers by 2025. In addition, state entities are also required to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. Additionally, all state entities are to support and recommend policies and actions to expand infrastructure in homes, through the Low-Carbon Fuel Standard.

4.6.2.2.11 ENERGY ACTION PLAN

The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The state's three major energy policy agencies (CEC, CPUC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs and emphasize the importance of the impacts of energy policy on the California environment.

In the October 2005 EAP II, CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the state's ongoing actions in the context of global climate change.

4.6.2.2.12 CALIFORNIA BUILDING CODE

The CBC contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC is adopted every 3 years by the CBSC. In the interim, the CBSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide; however, a local jurisdiction may amend a CBC standard if it makes a finding that the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

4.6.2.2.13 CALIFORNIA GREEN BUILDING STANDARDS

In essence, green buildings standards are indistinguishable from any other building standards, are contained in the CBC, and regulate the construction of new buildings and improvements. Whereas the focus of traditional building standards has been protecting public health and safety, the focus of CALGreen is to improve environmental performance.

The 2019 Standards, previously adopted in May 2018, addressed four key areas: smart residential PV systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The 2019 Standards required new residential and nonresidential construction, as well as major alterations to existing structures, to include EV-capable parking spaces, which have electrical panel capacity and conduit to accommodate future installation. In addition, the 2019 Standards also required the installation of solar PV systems for low-rise residential dwellings, defined as single-family dwellings and multi-family dwellings up to three stories in height. The solar PV systems are to be sized based on the buildings annual electricity demand, the building square footage, and the climate zone within which the home is located. However, under the 2019 Standards, homes may still rely on other energy sources, such as natural gas. Compliance with the 2019 Standards, including the solar PV system mandate, residential dwellings will use approximately 50% to 53% less energy than those under the 2016 Standards. Actual reduction will vary depending on various factors (e.g., building orientation, sun exposure). Nonresidential buildings will use about 30% less energy due mainly to lighting upgrades.

The recently updated 2022 Standards, which were approved in December 2021, encourages efficient electric heat pumps, establishes electric-ready requirements when natural gas is installed and to support the future installation of battery storage, and further expands solar photovoltaic and battery storage standards. The 2022 Standards extend solar PV system requirements, as well as battery storage capabilities for select land uses, including high-rise, multi-family, and nonresidential land uses, such as office buildings, schools, restaurants, warehouses, theaters, grocery stores, and more. Depending on the land use and other factors, solar systems should be sized to meet targets of up to 60% of the structure's loads. These new solar requirements will become effective January 1, 2023, and contribute to California's goal of reaching net-zero carbon footprint by 2045.

4.6.2.2.14 ADVANCED CLEAN CARS PROGRAM

In January 2012, the CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of ZEVs, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's ZEV regulation requires a battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15% of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34% fewer global warming gases and 75% fewer smog-forming emissions than the statewide fleet in 2016.

4.6.2.3 Local

4.6.2.3.1 COUNTY OF SAN LUIS OBISPO GENERAL PLAN

Conservation and Open Space Element

The COSE is a comprehensive long-range planning document that sets forth goals, policies, and actions to address the conservation and preservation of public services, air quality, vegetation and wildlife, mineral resources, visual resources, historic and archeological resources, and energy (County of San Luis Obispo 2010).

4.6.2.3.2 COUNTY OF SAN LUIS OBISPO 2016 ENERGYWISE PLAN

The County’s 2016 EnergyWise Plan (EWP) as adopted by the County Board of Supervisors in November 2011 in order to implement the goals established by the COSE. These goals include reducing GHG emissions from government and community operations by 15% and reducing energy use from County government operations by 20% from baseline levels (2006) by the year 2020. The EWP represents the County’s contribution to the state’s efforts to reduce GHG emissions as outlined in AB 32, which calls for state agencies to reduce emissions to 1990 levels by 2020, and 40% below 1990 levels by 2030, respectively.

4.6.2.4 *Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Energy*

Table 4.6-1 lists applicable state, regional, and local land use policies and regulations pertaining to energy that were adopted for the purpose of avoiding or mitigating an environmental effect and that are relevant to the proposed project. A general overview of these policy documents is presented in Section 4.6.2, *Regulatory Setting*, and Chapter 3, *Environmental Setting*. Also included in Table 4.6-1 is an analysis of project consistency with identified policies and regulations. Where the analysis concludes the proposed project would potentially conflict with the applicable policy or regulation, the reader is referred to Section 4.6.5, *Project-Specific Impacts and Mitigation Measures*, or Section 4.11, *Land Use and Planning*, for additional discussion.

Table 4.6-1. Preliminary Policy Consistency Evaluation

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
County of San Luis Obispo General Plan		
Conservation and Open Space Element		
<p>Policy E 1.1 Meeting energy needs. Meet electricity needs through the following prioritized measures:</p> <ul style="list-style-type: none"> a. Increased conservation and efficiency in all sectors of energy use. b. Development and use of locally appropriate sources of renewable resources from both distributed and large-scale projects. Examples include wind, tidal, wave, solar, micro-hydroelectric, biomass, and geothermal. 	<p>The intent of this policy is to meet electricity needs through the use of energy-efficient and renewable resources.</p>	<p>Potentially Consistent. The project would use energy from PG&E and mitigation has been included to ensure compliance with energy-efficient and green building design standards, including, but not limited to, electric vehicle charging infrastructure, water conservation, appliance energy efficiency, and design of roof trusses to handle dead weight loads of standard solar-heated water systems and PV panels. The DRSP includes specific objectives related to providing energy-efficient buildings. Additionally, mitigation has been identified to ensure the project would not</p>

Goals, Policies, Plans, Programs and Standards	Intent of the Policy in Relation to Avoiding or Mitigating Significant Environmental Impacts	Preliminary Consistency Determination
c. Development of non-renewable sources of energy.		result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.
Policy E 3.1 Use of renewable energy. Ensure that new and existing development incorporates renewable energy sources such as solar, passive building, wind, and thermal energy. Reduce reliance on non-sustainable energy sources to the extent possible using available technology and sustainable design techniques, materials, and resources.	The intent of this policy is to ensure that new and existing development incorporates renewable energy sources.	Potentially Consistent. The DRSP includes specific objectives related to providing energy-efficient buildings. Additionally, mitigation has been included to ensure future buildings are fully compliant with applicable energy-efficient and green building standards.
Policy E 3.2 Energy efficient equipment. Require the use of energy-efficient equipment in all new development, including but not limited to Energy Star appliances, high-energy efficiency equipment, heat recovery equipment, and building energy management systems.	The intent of this policy is to require the use of energy-efficient equipment in all new development.	Potentially Consistent. The DRSP includes specific objectives related to providing energy-efficient buildings. Additionally, mitigation has been included to ensure future buildings are fully compliant with applicable energy-efficient and green building standards.
Policy E 4.1 Integrate green building practices. Integrate green building practices into the design, construction, management, renovation, operations, and demolition of buildings, including publicly funded affordable housing projects, through the development review and building permitting process.	The intent of this policy is to integrate green building practices in new development.	Potentially Consistent. The DRSP includes specific objectives related to providing energy-efficient buildings. Additionally, mitigation has been included to ensure future buildings are fully compliant with applicable energy-efficient and green building standards.
Policy E 5.4 Construction and demolition waste. Continue to reduce construction and demolition waste in accordance with the County's Construction and Demolition Debris Recycling Ordinance. Support increased diversion rates over time.	The intent of this policy is to continue to reduce construction and demolition waste.	Potentially Consistent. As evaluated in Section 4.19, <i>Utilities and Service Systems</i> , the project would be required to comply with CALGREEN standards, which require diversion of 75% of construction-related solid wastes.
Framework for Planning (Inland)		
Principle 1: Preserve open space, scenic natural beauty, and natural resources. Conserve energy resources. Protect agricultural land and resources.	The intent of this policy is to conserve energy resources.	Potentially Consistent. The DRSP includes specific objectives related to providing energy-efficient buildings. Additionally, mitigation has been included to ensure future buildings are fully compliant with applicable energy-efficient and green building standards to conserve energy during operation. Mitigation has also been included to reduce energy consumption during construction of the project to conserve energy during construction.
Principle 1, Policy 5. Conserve energy resources by: a. Planning for energy efficiency and conservation in land use and transportation, and in subdivision and building regulations. b. Decreasing reliance on environmentally costly energy sources, increasing conservation efforts, and encouraging use of alternative energy sources.	The intent of this policy is to implement different energy conservation measures.	Potentially Consistent. The DRSP includes specific objectives related to providing energy-efficient buildings. Additionally, mitigation has also been included to ensure future buildings are fully compliant with applicable energy-efficient and green building standards to conserve energy during operation. Mitigation has also been included to reduce operational vehicle trips, encourage the use of alternative modes of transportation, and encourage future land uses to participate in 3CE as the electricity provider if it is an option that would be available at the time of occupancy. <u>If 3CE is not available, PG&E energy would serve the project and PG&E energy generation is supplied from approximately 29% of renewable energy sources.</u>

4.6.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA and the County. Specifically, the project would be considered to have a significant effect on energy if the effects exceed the significance criteria described below:

- a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Each of these thresholds is discussed under Section 4.6.5, *Project-Specific Impacts and Mitigation Measures*, below.

4.6.4 Impact Assessment and Methodology

The following impact evaluation is based, in part, on the *Energy Impact Assessment* prepared for the DRSP (AMBIENT 2022; see EIR Appendix F). A significant impact related to energy would occur if the proposed project would result in short- or long-term wasteful, inefficient, or unnecessary consumption of energy resources or conflict with a state or local plan for renewable energy or energy efficiency.

4.6.5 Project-Specific Impacts and Mitigation Measures

WOULD THE PROJECT RESULT IN A POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES, DURING PROJECT CONSTRUCTION OR OPERATION?

Specific Plan Area

EN Impact 1: The project could result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant with mitigation (Class II).

CONSTRUCTION

Energy consumption would occur during construction, including diesel fuel use associated with the on-site operation of off-road equipment and vehicles traveling to and from the construction site. The exact schedule for buildout of the Specific Plan Area is currently unknown but is anticipated to occur over a span of 6 years, beginning in 2024 (see Table 2-11 in Chapter 2, *Project Description*). Site improvements, including grading and road and utility infrastructure development, would occur prior to development of individual neighborhoods and other Specific Plan Area features. Residential, commercial, and other development would occur following initial site improvements by individual developers and/or landowners. Table 4.6-1 summarizes the levels of energy consumption associated with project construction.

Table 4.6-1. Construction Energy Consumption

Source	Total Fuel Use (gallons) ¹	Total Million British Thermal Units (MMBTU)
Phase 1		
Off-Road Equipment Use (Diesel)	520,373	71,489
On-Road Vehicles (Gasoline)	780,947	93,937
On-Road Vehicles (Diesel)	81,653	11,218
Total		176,644

Source: AMBIENT (2022)

¹ Fuel use was calculated based, in part, on construction schedules, default equipment uses, and vehicle trips identified for the construction of similar land uses contained in the CalEEMod output files prepared for the air quality analysis conducted for this project (see EIR Appendix F).

The use of off-road construction equipment would use an estimated total of 520,373 gallons of fuel for buildout of the Specific Plan Area. On-road vehicles would use an estimated total of 86,878 gallons of gasoline and 33,837 gallons of diesel fuel. On-road vehicles would use an estimated total of 750,947 gallons of gasoline and 81,653 gallons of diesel fuel. In total, construction fuel use would equate to approximately 176,644 million British thermal units (MMBTU). Construction equipment use and associated energy consumption would be consistent with the energy use that is commonly associated with the construction of new land uses. In addition, Mitigation Measure AQ/mm-3.1, included in Section 4.3, *Air Quality*, would be implemented to reduce construction-related fuel use and limit idling of heavy-duty diesel construction equipment to 5 minutes in accordance with SLOAPCD requirements. With implementation of Mitigation Measure AQ/mm-3.1, the short-term energy use associated with the construction phase of the proposed project would not result in the need for additional energy infrastructure capacity or increased peak-period demands for electricity. Therefore, construction-related impacts associated with inefficient, wasteful, or unnecessary energy consumption would be *less than significant with mitigation*.

OPERATION

Buildout of the Specific Plan Area would result in the construction of 831 new residential single-family units, 458 new residential multi-family units, 152 ADUs, and approximately 203,000 square feet of land dedicated to commercial and light industrial development. Full buildout of the Specific Plan Area is anticipated to generate a total population of 4,554 residents and 2732 new employees (4,826 people) and approximately 18,662 additional daily trips (CCTC 2021; Appendix J). In addition, buildout of the Specific Plan Area includes development of a new 10+-acre public park and 1-acre equestrian staging area, and 8.5 to 12 acres of neighborhood parks.

Operational Building-Use Energy Consumption

The proposed project would result in increased electricity and natural gas consumption associated with the long-term operation of the planned land uses. Estimated electricity and natural gas consumption associated with buildout of the Specific Plan Area is summarized in Table 4.6-2.

As shown in Table 4.6-2, operation of the Specific Plan Area would result in the annual consumption of approximately 7,061,239 kWh of electricity, 325,170 kWh of water, and 33,489,670 kilo British thermal units (kBTU) of natural gas, for an annual total of approximately 58,692 MMBTU at buildout.

Table 4.6-2. Operational Electricity, Water, and Natural Gas Consumption

Source	Annual Energy Use	Annual Million British Thermal Units (MMBTU)
Electricity (kWh)	7,061,239	24,093
Water (kWh)	325,170	1,109
Natural Gas (kBTU)	33,489,670	33,490
Total		58,692

Source: AMBIENT (2022)

Note: kWh = kilowatt hour; kBTU = kilo British thermal unit

Additionally, the development of increasingly efficient building fixtures would result in increased energy efficiency and energy conservation. The project would be subject to energy conservation requirements in the CEC (24 CCR Part 6) and CALGreen (24 CCR Part 11). Proposed single-family residential dwellings would also be required to incorporate solar PV systems, per current building code requirements. On average, the incorporation of solar PV systems would reduce on-site electricity use by approximately 70%. Adherence to Title 24 requirements and applicable GHG mitigation measures would further reduce energy use during project construction and operation and promote the use of energy from renewable sources. Such measures include, but are not limited to, the prohibited installation of natural gas to serve residential development, use of energy efficient appliances, future participation in 3CE as the electricity provider (if/when the option becomes available), and implementation of various waste recycling and water conservation measures. For these reasons, the project would not result in wasteful and inefficient use of non-renewable resources due to building operation. In addition, Mitigation Measure AQ/mm-3.3, has been included to further reduce long-term energy use. Adherence to CCR Title 24 requirements and Mitigation Measures AQ/mm-3.3, would ensure that the project would not result in wasteful and inefficient use of nonrenewable resources due to implementation of new residential, commercial, and other land uses. Therefore, potential impacts related to the long-term consumption of energy for proposed development would be *less than significant with mitigation*.

Operational Mobile-Source Energy Consumption

Operational mobile-source energy consumption would be primarily associated with truck and vehicle trips to and from the project. Table 4.6-3 summarizes the annual fuel use at build-out.

Table 4.6-3. Operational Fuel Consumption¹

Source	Annual Fuel Use (gallons) ²	Annual Million British Thermal Units (MMBTU)
Residential		
Mobile Fuel (Diesel)	174,307	23,946
Mobile Fuel (Gasoline)	922,580	110,973
Commercial & Educational		
Mobile Fuel (Diesel)	60,820	8,356
Mobile Fuel (Gasoline)	321,914	38,722
Hotel		
Mobile Fuel (Diesel)	12,240	1,681
Mobile Fuel (Gasoline)	64,782	7,792
Total		191,471

Source: AMBIENT 2022

¹ Assumes a build-out year of 2030.

² Fuel use was calculated based, in part, on project trip generation rates derived from the traffic analysis for the project (CCTC 2021)

As shown in Table 4.6-3, the vehicle trips associated with the proposed land uses would consume an annual estimated 247,367 gallons of diesel fuel and 1,309,276 gallons of gasoline for operation in the estimated full buildout year of 2030. Additionally, the development of increasingly efficient automobile engines would result in increased energy efficiency and conservation. Mitigation Measures AQ/mm-3.3 and TR/mm-3.1, included in Section 4.17, *Transportation*, have been included to reduce long-term mobile source emissions as feasible, including incorporation of measures to reduce VMT, such as incorporation of site design features that would promote pedestrian connectivity, bicycle, and transit use. Therefore, implementation of the proposed project would not result in increased fuel usage that would be considered unnecessary, inefficient, or wasteful, and potential impacts would be *less than significant with mitigation*.

EN Impact 1 (Class II)
The project could result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.
Mitigation Measures
Implement Mitigation Measures AQ/mm-3.1, AQ/mm-3.3, and TR/mm-3.1.
Residual Impacts
With implementation of Mitigation Measures AQ/mm-3.1, AQ/mm-3.3, and TR/mm-3.1, potential impacts related to wasteful, inefficient, or unnecessary consumption of energy resources would be <i>less than significant (Class II)</i> .

Off-Site Improvements

EN Impact 2: Off-site improvements could result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant with mitigation (Class II).

Construction for proposed off-site transportation, water, and wastewater system improvements would require the use of energy in the form of diesel fuel, gasoline, and energy for vehicle and equipment use. Proposed construction activities for off-site improvements would be consistent with energy consumption of typical construction activities and are anticipated to occur incrementally, which would reduce the amount of energy consumed at one time. In addition, construction activities would be subject to Mitigation Measure AQ/mm-3.1 and state and local diesel idling restrictions and other equipment standards to reduce the potential for inefficient energy use to occur. Therefore, construction-related impacts associated with off-site improvements would not result in inefficient, wasteful, or unnecessary energy consumption and impacts would be *less than significant with mitigation*.

Operation of the proposed off-site infrastructure would require the use of electricity anticipated to be provided by PG&E and gasoline for as-needed maintenance and repair. Proposed energy use for operation of proposed off-site improvements would be minimal and would be similar to existing operational energy use for similar transportation, water, and wastewater facilities. New or expanded infrastructure would result in a limited increase in long-term energy use and would not constitute energy consumption that may result in wasteful, inefficient, or unnecessary consumption of energy. Additionally, as-needed maintenance and repair trips would use limited amounts of gasoline and would be similar to energy use for existing transportation facility and NCS maintenance and repair activities. Therefore, potential impacts related to operational energy use would be *less than significant*.

EN Impact 2 (Class II)
Off-site improvements could result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.
Mitigation Measures
Implement Mitigation Measure AQ/mm-3.1.
Residual Impacts
With implementation Mitigation Measure AQ/mm-3.1, potential impacts related to wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant (Class II).

WOULD THE PROJECT CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY?

Specific Plan Area

EN Impact 3: The project could conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant with mitigation (Class II).

The project would be required to be in full compliance with the CBC, including applicable green building standards and building energy efficiency standards. In addition, the proposed project would be required to comply with the County’s COSE to ensure the conservation and preservation of energy resources by increasing the energy efficiency of buildings, appliances, and buildings to the use of alternative forms of energy. Based on required compliance with the CBC and the County’s COSE, the project would not conflict with goals and policies pertaining to renewable energy and energy efficiency. Additionally, implementation of Mitigation Measure AQ/mm-3.3, included in Section 4.3, *Air Quality*, would ensure that the proposed project meets or exceeds building code requirements related to building energy efficiency.

The County’s Framework for Planning (Inland) includes combining designations to identify areas within the county with characteristics that are either of public value or are hazardous to the public. The project site is located within the Renewable Energy Overlay (RE) combining designation (LUO Section 22.14.100), which applies to areas where renewable energy production is favorable, the production of distributed renewable energy resources is prioritized, and permit requirements are structured to streamline the environmental review and processing of land use permits for solar electric facilities (SEFs). The project does not include the construction of SEFs or other renewable energy facilities; however, Mitigation Measure AQ/mm-3.3 would require proposed residential and commercial building to meet or exceed applicable building standards for building energy efficiency with a goal of achieving ZNE buildings. Implementation of on-site renewable energy systems would be consistent with the purpose of the RE combining designation, which prioritizes the production of renewable energy through the use of distributed renewable energy systems (e.g., solar panels).

In addition, LUO Section 22.14.100 does not limit the development of parcels within the RE combining designation to renewable energy facilities. LUO Section 22.14.100.B.4 states that where Community Planning Standards (Article 9) or Community Area Standards (Article 10) apply to a parcel, those standards would prevail over requirements of LUO Section 22.14.100. The project parcel is included in Article 9 (South County Planning Area; LUO Section 22.98.072) as an area for commercial and residential expansion; therefore, in accordance with LUO Section 22.14.100.B.4, the standards of LUO

Section 22.98.072 would prevail over standards of the RE combining designation. Based on required compliance with the CBC and the County’s COSE, and implementation of Mitigation Measure AQ/mm-3.3, the project would be consistent with the purpose of the RE combining designation and other goals and policies pertaining to renewable energy and energy efficiency. Therefore, the proposed project would not conflict with state or local plans for renewable energy or energy efficiency, and potential impacts would be *less than significant with mitigation*.

EN Impact 3 (Class II)
The project could conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
Mitigation Measures
Implement Mitigation Measure AQ/mm-3.3.
Residual Impacts
<i>With implementation of Mitigation Measure AQ/mm-3.3, potential impacts related to obstruction of a state or local renewable energy or energy efficiency plan would be less than significant (Class II).</i>

Off-Site Improvements

EN Impact 4: Off-site improvements could conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant with mitigation (Class II).

Construction and operation of proposed off-site transportation, water, and wastewater infrastructure would result in limited energy consumption. Construction activities would be required to comply with Mitigation Measure AQ/mm-3.1, included in Section 4.3, *Air Quality*, and state and local diesel idling restrictions and other equipment standards to reduce the potential for inefficient energy use to occur. Implementation of proposed off-site improvements would not result in new residential, commercial, or other buildings that would be subject to CBC or CALGreen standards. Therefore, construction and operation of proposed off-site improvements would not conflict with state or local renewable energy or energy efficiency plans, and impacts would be *less than significant with mitigation*.

EN Impact 4 (Class II)
Off-site improvements could conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
Mitigation Measures
Implement Mitigation Measure AQ/mm-3.1.
Residual Impacts
<i>With implementation of Mitigation Measure AQ/mm-3.1, potential impacts related to obstruction of a state or local renewable energy or energy efficiency plan would be less than significant (Class II).</i>

4.6.6 Cumulative Impacts

EN Impact 5: The project would not result in a cumulatively considerable impact to energy resources. Impacts would be less than cumulatively considerable and less than significant (Class III).

As discussed in Chapter 3, *Environmental Setting*, the cumulative impact analysis is based on the County's cumulative projects list. Cumulative projects would generate residential, industrial, and commercial development within the county. Project-specific impacts related to short- and long-term wasteful, inefficient, or unnecessary energy consumption and consistency with a state or local renewable energy or energy efficiency plan would be less than significant with mitigation. Based on required compliance with existing CBC and CALGreen standards, reasonably foreseeable future projects are not anticipated to result in short- or long-term wasteful, inefficient, or unnecessary energy consumption or conflict with a state or local renewable energy or energy efficiency plan. Nevertheless, reasonably foreseeable future projects would be subject to separate environmental review to determine potential impacts related to energy use and reduce energy consumption as necessary. Therefore, impacts related to energy would be *less than cumulatively considerable*.

EN Impact 5 (Class III)
The project would not result in a cumulatively considerable impact to energy resources.
<i>Mitigation Measures</i>
<i>Mitigation is not necessary.</i>
<i>Residual Impacts</i>
<i>Cumulative impacts would be avoided through compliance with identified project-specific mitigation; no additional mitigation is needed to avoid or minimize potential cumulative impacts. Therefore, residual impacts would be less than significant (Class III).</i>

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