

3.7 Energy/Electric Utilities

3.7.1 Existing Conditions

The Pacific Gas and Electric Company (PG&E) provides electrical power to the northern portion of Santa Barbara County (County). (The southern portion of the County is served by Southern California Edison [SCE]). PG&E and SCE have formed a partnership to support the Santa Barbara County Energy Watch, a new residential and nonresidential program to assist and facilitate residents and businesses and other City and County government officials in understanding, managing, and reducing their energy use and costs, and to position the partners as leaders in the region in energy management practices. PG&E provides limited funding and services to assure that any customer receiving PG&E electric service is offered the full range of energy efficiency options suitable for that customer.

PG&E maintains a number of facilities in the general Project area, including distribution lines serving residences, commercial and industrial facilities, and agricultural operations; a 115-kilovolt (kV) power line serving the Celite facility; and the Cabrillo Substation in the City of Lompoc. These facilities are linked by transmission lines with other PG&E facilities located to the north and east, including the Morro Bay Substation, Atascadero Substation, Templeton Substation, and Divide Substation.

PG&E obtains power from a number of sources (PG&E, 2006), including:

- Natural Gas - 42 percent
- Nuclear - 24 percent
- Large Hydroelectric - 20 percent
- Renewable - 12 percent
- Coal - 1 percent
- Other - 1 percent

PG&E's renewable energy sources are further broken down as follows (PG&E, 2006):

- Biomass - 38 percent
- California-eligible Hydroelectric - 33 percent
- Geothermal - 19 percent
- Wind - 10 percent
- Solar - Less than 1 percent

No utility-scale wind energy facilities are currently present in the County, although PG&E and SCE both purchase wind power from other sources in California. Approximately 95 percent of all of California's wind energy is generated by turbines located in three primary regions: Altamont Pass (east of San Francisco), Tehachapi (southeast of Bakersfield), and San Geronio (near Palm Springs, east of Los Angeles). Wind energy also is produced in Solano County and the Tehachapi Ranges. An average California household uses 6,500 kilowatt-hours (kWh) of electricity per year; thus, the 3.5 billion kWh of electrical power generated each year from wind resource in the state can power over 530,000 homes (CEC, 2006).

3.7.2 Regulatory Framework

3.7.2.1 Federal

The United States Department of Energy has established a goal of generating 5 percent of the electricity generated in the country by the year 2020 from wind power, which will require an installed capacity 15 times greater than that which currently exists (an estimated 62,000 additional turbines) (GAO, 2005).

3.7.2.2 State

California's Renewable Portfolio Standard (RPS), established under Senate Bill (SB) 1078 (SB 1078, Chapter 516, Statutes of 2002), requires certain retail sellers of electricity, including PG&E, to increase the amount of renewable energy they procure each year by 1 percent until the renewable energy content of their electricity portfolios equals 20 percent. Retail sellers of electricity originally were to meet this 20 percent level by December 31, 2017. SB 107 accelerated the RPS target year from 2017 to December 31, 2010. (SB 107, Chapter 464, Statutes of 2006).

Additional recent relevant legislation is described below:

- SB 1107 is one of a series of budget trailer bills that made various changes in areas of natural resources and environmental protection and provided support for other related state agencies. Specific to the California Energy Commission (CEC), this bill contains a provision that requires the Secretary for the California Environmental Protection Agency (CalEPA) to coordinate the state's climate change activities. (SB 1107, Chapter 230, Statutes of 2004).
- SB 1368 prohibits any load-serving entity, as defined, and any local publicly owned electric utility, from entering into a long-term financial commitment, as defined, unless any baseload generation, as defined, complies with a greenhouse gases emission performance standard. (SB 1368, Chapter 598, Statutes of 2006).
- "Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006 requires that California's greenhouse gas emissions be reduced to 1990 levels by 2020. The California Air Resources Board (ARB) must evaluate several factors, including but not limited to: impacts on California's economy, the environment, and public health; equity between regulated entities; and electricity reliability prior to imposing regulations. The California Energy Commission and California Public Utilities Commission recently recommended (in CPUC Decision 08-03-018, March 13, 2008) that ARB adopt a three-pronged approach involving cost-effective energy efficiency, going beyond the RPS requirements, and developing an emissions cap and trade system for the electricity sector."

3.7.2.3 Local

The Energy Element of the Santa Barbara County Comprehensive Plan contains long-range planning guidelines and mechanisms to encourage energy efficiency and alternative energies in the County. The Project's consistency with specific policies included in the Energy Element is addressed in Section 3.10, Land Use.

3.7.3 Project Impacts, Mitigation, and Residual Impacts

3.7.3.1 Impact Assessment Methodology

The analysis considers Project impacts in the context of the regulatory environment. The thresholds of significance used to determine Project significance are provided in Section 3.7.3.2.

3.7.3.2 Thresholds of Significance

The following significance thresholds were developed because CEQA does not provide such thresholds for Energy/Electric Utilities, nor does the County's Environmental Thresholds and Guidelines Manual. The Project would have a significant impact on Energy/Electric Utilities if one or more of the following occurred.

- The Project would be inconsistent with federal goals and state legislation related to the use of renewable energy.
- The Project would use nonrenewable energy resources in a wasteful and inefficient manner.
- The Project would result in a need for new systems or substantial alterations to existing power utilities.

3.7.3.3 Project Impacts, Mitigation, and Residual Impacts

Project Impacts

Impact No.	Impact Description	Phase	Impact Classification
EEU-1	The Project could generate up to 350 <u>285</u> million kWh of electricity annually.	Operations	Class IV

Impact EEU-1: Federal and State Renewable Energy Goals. The Project would include ~~60 to 80~~ 65 wind turbine generators (WTGs) rated at 1.5 MW and would have a maximum electrical generating capacity of ~~97.5 to 120~~ 97.5 megawatts (MW). The Project Company has contracted with PG&E to deliver 82.5 MW of renewable energy and capacity under a long-term power purchase agreement via a direct interconnection to PG&E's transmission grid. The remainder of the planned capacity would be developed and installed upon securing long-term power purchase agreements with PG&E or others. ~~Based on~~ According to the revised Project application (65 turbines rated at 1.5 MW), the Project could generate up to ~~350~~ 285 million kWh of electricity annually.

The Project would support both the United States Department of Energy goal of increasing the overall use of wind power to generate electricity and California's RPS target. Additionally, the electricity produced by the Project would potentially replace the same amount of electricity generated by fossil fuels or other more polluting sources, which would support the state's legislation related to greenhouse gas emissions. The Project would have a beneficial impact (*Class IV*) related to federal and state renewal energy goals.

Impact No.	Impact Description	Phase	Impact Classification
EEU-2	Construction and operation of the Project would result in consumption of diesel fuel and gasoline.	Construction and Operations	Class III

Impact EEU-2: Nonrenewable Energy Resources. Construction and operation of the Project would result in the consumption of diesel fuel and gasoline through trucks delivering materials and construction equipment to the Project areas, use of construction equipment and large trucks, use of construction worker and operator vehicles, and use of maintenance vehicles associated with Project operation. Construction would be short-term and would not require unusually high amounts of energy resources, nor would energy be used in a wasteful or inefficient manner. Moreover, the maintenance vehicles during operation of the Project would be used infrequently and would not consume unusually high amounts of fuel. Impacts would be adverse, but less than significant (*Class III*).

Impact No.	Impact Description	Phase	Impact Classification
EEU-3	Temporary and long-term modifications to the PG&E system would be required to implement the Project, including a temporary power line and upgrades to PG&E's existing electrical system.	Construction and Operations	Class III

Impact EEU-3: New/Altered PG&E Facilities. Certain temporary and long-term modifications to the PG&E system would be required to implement the Project. Temporary power would need to be provided to the six to eight temporary site office trailers at the intersection of San Miguelito Road and Sudden Road, and power would need to be provided to the Operations and Maintenance Building and the WTGs. ~~Additionally, PG&E could need to build a temporary power line in order to continue to service to the Celite facility while the double circuit portion of the 115-kV power line was being constructed.~~ Power lines are already present in the Project area, and the changes to the LWEF site are not considered substantial alterations, ~~nor is the construction of a temporary power line to serve the Celite facility.~~

Other upgrades to the PG&E electrical system would need to be made in order to integrate the power generated by the Project to PG&E's existing power grid. These upgrades include reconductoring a 2,000-foot segment of the existing Divide-Cabrillo No. 2 115-kV power line; installing relays and appropriate communication equipment to trip the circuit breaker at the Atascadero Substation; and replacing existing protective relays and installing a new relay protection scheme that would include transfer trips, reclosing relays, and reclosing blocking equipment at the Divide Substation near Orcutt. All upgrades would modify existing facilities located in previously disturbed areas, would require no ground disturbance, and would not result in environmental impacts; therefore, they are not considered substantial alternations to existing power utilities.

Impacts from the need for new or altered facilities would be adverse, but less than significant (*Class III*).

3.7.3.4 Mitigation Measures

No mitigation measures are required because no significant impacts to Energy/Electric Utilities would occur.

3.7.3.5 Residual Impacts

Adverse impacts would be less than significant.