

Executive Summary

ES-1 Overview

The purpose of the Executive Summary and impact summary tables is to provide the reader with a brief overview of the proposed Project, the anticipated environmental effects, and the potential mitigation measures that could reduce the severity of the impacts associated with the Project. The County of Santa Barbara (County), as lead agency under the California Environmental Quality Act (CEQA), has prepared this Environmental Impact Report (EIR) in accordance with CEQA, Public Resources Code Sections 21000 et seq., the State CEQA Guidelines, 14 CCR Sections 15000 et seq. and the County Guidelines for the Implementation of CEQA. It addresses the potential environmental impacts of the proposed Lompoc Wind Energy Project (Project). The Project falls within the 4th Supervisorial District of the County.

This EIR is an informational document that is being used by the general public, utility providers, and governmental agencies to review and evaluate the Project. The reader should not rely exclusively on the Executive Summary as the sole basis for judgment of the Project and alternatives. The complete EIR should be consulted for specific information about the environmental effects and the implementation of associated mitigation measures.

The Lompoc Wind Energy Facility (LWEF), the wind turbine generator (WTG) component of the Project, would be located on approximately 2,950 acres of rural, agriculturally zoned land on coastal ridges southwest of Lompoc. The LWEF would have a maximum electrical generating capacity of 120 megawatts (MW), which could potentially supply up to 60,000 homes with electricity. The Applicant has initially contracted with Pacific Gas and Electric Company (PG&E) to deliver 82.5 MW of renewable energy and capacity under a long-term power purchase agreement via a direct interconnection with the PG&E transmission grid. The remainder of the planned capacity would be developed in up to two subsequent phases and installed upon securing additional long-term power purchase agreements with PG&E or others. According to the Project application, the proposed wind farm could generate up to 350 million kilowatt hours (kWh) of electricity annually. The target date for commercial operations is October 1, 2008. The anticipated operational life of the Project is approximately 30 years.

Following are the major Project components:

- 60 to 80 WTGs
- New onsite access roads and road improvements
- A communication system
- Meteorological towers

- An operations and maintenance (O&M) facility
- Onsite electrical collection and distribution lines
- An onsite Project Substation
- A new 7.85-mile, 115-kilovolt (kV) PG&E power line to the Lompoc area to interconnect with the PG&E electric grid
- Upgrades to existing PG&E facilities

Environmental Impact Report Scope

This EIR examines potential short-term and long-term impacts of the Project. These impacts were determined through a rigorous process mandated by CEQA in which existing conditions are compared and contrasted with conditions that would exist once the Project was implemented. The significance of each identified impact was determined using either County Thresholds of Significance (County, 2006) or CEQA thresholds where there is no County threshold. The following categories are used for classifying Project related impacts:

- *Class I* - Significant adverse impacts that cannot be feasibly mitigated or avoided. If the Project is approved, decision-makers are required to adopt a statement of overriding considerations, pursuant to CEQA Section 15093, explaining why Project benefits outweigh the unavoidable, adverse environmental effects.
- *Class II* - Significant adverse Impacts that can be feasibly mitigated or avoided. If the Project is approved, decision-makers are required to make findings pursuant to CEQA Section 15091, that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.
- *Class III* - Adverse impacts that are less than significant. These impacts do not require mitigation, nor do they require that CEQA findings be made.
- *Class IV* - Beneficial impacts; effects that are beneficial to the environment.

For each significant impact identified, mitigation measures that are designed to reduce impacts to less than significant levels are presented. The Applicant has proposed many mitigation measures as part of the Project application, and the County has supplemented them by refining the Applicant's measures and adding new measures as needed. In those instances in which mitigation measures cannot reduce such impacts to less than significant levels, the impacts are identified as *Class I*. In many cases, these mitigation measures would also further reduce adverse, but less than significant impacts (*Class III*).

The EIR also presents alternatives to the Project, including the "No Project" alternative, and a qualitative assessment of the impacts that would be associated with the implementation of each. Finally, the cumulative impacts of the Project when added to other local proposed or approved projects were also evaluated.

Notice of Preparation

On June 30, 2006, the County distributed a Notice of Preparation (NOP) describing the Project for review by affected state, county, and city agencies, utility providers, interested organizations, and the general public. In addition to obtaining written comments on the NOP, a public scoping meeting was held on July 17, 2006. The meeting provided an opportunity for affected public agencies and the public to express concerns about the project and issues that should be addressed in the project EIR. All comments (written, e-mail, and verbal) were considered as part of preparation of this EIR.

Summary of Project Impacts

The significance of each impact resulting from implementation of the Project has been determined according to either the County Thresholds and Guidelines Manual or CEQA thresholds. As discussed in the EIR, there are only three significant and unavoidable impacts associated with implementation of the Project:

1. Construction and operation of WTGs in the westernmost arrays of the Project area would create a significant visual impact during both daytime and nighttime periods to users of Jalama Beach County Park, which is approximately 4.5 miles distant. Based upon the generalized reasonable worst-case analysis (80 WTGs), three WTGs would be visible near the base of Tranquillon Mountain, and an estimated 10 would be visible in the southernmost WTG array along the ridgeline.
2. Placement of a series of new power poles and associated power line in the area of State Route 1 (SR-1) would introduce a significant new visual impact along the ridgeline, which would silhouette against the skyline.
3. An unknown number of protected birds and bats may be killed through collisions with the WTGs over the duration of the Project.

The rest of the Project impacts have been found to be mitigatable to acceptable levels, adverse but less than significant, or they have been identified as beneficial impacts. Tables ES-1 through ES-4 (Summary of Impacts and Mitigation Measures), provided at the end of this section, present a summary of the environmental impacts that would result from the proposed Project. It is organized to correspond with the environmental issues discussed in Section 3.0 Environmental Setting, Impacts, and Mitigation Measures.

Tables ES-1 through ES-4 are arranged in five columns: the identified impact under each EIR issue area; the project phase; the level of significance prior to mitigation; mitigation measures that would avoid or reduce the level of impacts; and the level of significance after implementation mitigation measures, as applicable. Where no mitigation is required, it is noted in the table.

Summary of Project Alternatives

Section 5.0 Alternatives provides an analysis of the Project alternatives ranging from alternative technologies, alternative sites, the No Project Alternative, and alternative LWEF layouts and power line routes. The alternatives analysis includes a discussion of

alternatives that were dismissed from further consideration, as well as a comparative analysis of a reasonable range of potentially feasible Project alternatives.

The alternatives included in the comparative analysis include the following:

LWEF Alternative 1 (Limit WTGs on South/West Corridors)

This alternative (Figure 5.3-1) would be implemented on the same site as the Project and follow Project construction practices and regulatory requirements. Project components would be unchanged as well, with one exception – the number of WTGs would be reduced, or microsited in portions of the LWEF, in order to reduce significant impacts to views from Jalama Beach County Park.

LWEF Alternative 2 (Phase I Only)

This alternative would limit the Project to the portion that would be completed under Phase I of the Project as proposed, consisting of construction and production of 82.5 MW of wind energy, which would fulfill the existing Power Purchase Agreement between the Applicant and PG&E. Additionally, this alternative would eliminate those WTGs that are visible from Jalama Beach County Park, consistent with LWEF Alternative 1.

Power Line Alternative 1 (Re-routing to Minimize Visual Impacts)

This Applicant-proposed alternative power line route (Figure 5.3-2) was developed to minimize the significant and unavoidable visual impacts along SR-1 associated with the proposed power line route.

No Project Alternative

Under this alternative, the LWEF and associated power line would not be constructed and the underlying land uses at the Project sites would remain unchanged.

Environmentally Superior Alternative

As discussed in Section 5.0, the analysis contained in this EIR concluded that the proposed Project and all the alternatives considered, except the No Project Alternative, would result in significant and unavoidable (*Class I*) impacts from avian mortality resulting from collisions with WTGs. The proposed Project would also result in significant and unavoidable (*Class I*) visual impacts from the degradation of scenic resources from the WTGs visible from Jalama Beach County Park and from the power line route visible to travelers along SR-1.

In addition, the proposed Project and all the alternatives considered, except the No Project Alternative, would also result in significant, but mitigable (*Class II*) impacts on various resource areas including: aesthetics/visual resources, air quality, biological resources, cultural resources, fire protection and emergency services, geology/soils, land use, noise, paleontological resources, risk of accidents/hazardous materials/safety, transportation/circulation, and water resources.

Based upon the comparative analysis, the No Project Alternative would have the least significant impacts. However, the No Project Alternative would not meet the Project objectives presented in Section 1.3. Therefore, it was determined that the

environmentally superior alternative that meets the Project objectives and minimizes or eliminates the environmental impacts of the Project is a combination of LWEF Alternative 2 (Phase I Only) and Power Line Route Alternative 1. LWEF Alternative 2 would be expected to result in the least short-term and long-term environmental effects due to the minimization of visual impacts to Jalama Beach County Park and reduction of impacts to most other resources. Power Line Route Alternative 1 would be expected to result in the least short-term and long-term environmental effects due to the minimization of visual impacts to travelers along SR-1.

TABLE ES-1
Summary of Class I Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-10	Operations/ LWEF	Unknown but potentially substantial numbers of protected birds and bats are at risk of dying through collisions with the WTGs over the duration of the Project.	<p>BIO-3: Avian Monitoring. A detailed avian monitoring plan shall be developed by a County-approved biologist in cooperation with County staff as soon as practicable after Project discretionary permit approval. Areas of mixed evergreen forest within 300 feet of Project facilities will be surveyed at weekly intervals to collect data on nesting season length, species nesting in the area, density of nests, and success rates. Information will also be collected on the use of perches and the relative amount of foraging by raptors in the Project area. Count locations will also be established in areas of representative habitat to characterize the prey base for raptors. Counts will be made of California ground squirrels, brush rabbits, black-tailed jackrabbits, and other small mammals observed during each visit. If construction activities (including removal or trimming of trees and shrubs) are to take place between February 1 and August 31, a biologist will survey for raptor nests prior to the start of construction. The survey will occur at the sites of construction activity, as well as up to 300 feet away</p> <p>BIO-4: Avian and Bat Mortality Study. The applicant shall retain a County-approved biologist to conduct an avian and bat mortality study. The study shall continue for at least the first 2 years of operation (following first delivery of power). The study shall primarily document mortality of raptors and bats, but shall also generate data on mortality of all bird species in the Project area. The study shall follow the guidelines developed by the National Wind Coordinating Committee and include periodic (at least biweekly) searches for bird and bat carcasses at and near WTGs, power poles, and meteorological towers. Quarterly and annual reports shall be prepared that include sufficient information (such as description of each carcass; its location in relation to Project facilities; availability of raptor prey; and nearby perching and nesting sites) to allow evaluation of WTG design characteristics and locational factors that contribute to mortality. The County shall form a technical advisory committee to review and assess the annual reports. Based on this review, the committee shall provide recommendations on whether additional measures to protect birds or bats are warranted. (Refer to BIO-5). The committee shall be composed of County staff; the biologist in charge of implementing the mortality study; a representative of the Project owner or operator; and other experts the County deems necessary, which could include representatives of state and federal agencies. The Applicant shall fund the mortality study and annual assessment.</p>	Significant

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			<p>BIO-5: Additional Measures to Protect Birds and Bats. If needed, additional protective measures may include blade painting and dummy WTGs, treatments to reduce prey beneath WTGs (for example, cropping grass), changes in lighting plans acceptable to the Federal Aviation Administration or other measures, provided that they must: (1) be reasonably feasible, economically and technically; (2) have been shown to be effective in reducing bird mortality at other, comparable wind projects; and (3) not generate significant environmental impacts.</p> <p>To mitigate unanticipated, extreme impacts (such as many deaths of protected bird or bat species), limited curtailment of the operation of specific, problem WTGs may be required during periods when risk to those species is established to be high.</p> <p>For WTG locations approved for future Project phases but not constructed during the first phase, measures may additionally include restriction of WTG siting locations if: (1) the studies demonstrate excessive bird or bat mortality resulting from existing operations, and (2) the potential for excessive mortality in certain areas planned for development is judged to be high, based on the site characteristics, the avian monitoring studies, and the experience provided by the mortality studies of the already-operating portion of the Project.</p> <p>A-BIO-6: Passerines and Other Ground-nesting Birds. A County-approved biologist shall conduct a study to assess the density of passerines and other ground-nesting birds in representative habitats in the Project area. Plots shall be established in various habitats and checked at weekly intervals to collect data on nesting season length, species nesting in the area, density of nests, and success rates. The focus shall be on ground-nesting birds that are sensitive species, including California horned lark, California rufous-crowned sparrow, and grasshopper sparrow. Based on survey results and literature review, burrowing owl nesting in the Project area is unlikely, but the other species are either known or likely. The surveys shall be conducted as long as birds are nesting in the Project area between February 1 and August 31. The surveys shall be discontinued when it is apparent that nesting has ceased for the season.</p> <p>If construction is to occur between February 1 and August 31, all sites to be disturbed shall be surveyed for ground-nesting and shrub-nesting birds prior to construction. The emphasis shall be on California horned lark, western burrowing owl, California rufous-crowned sparrow, and grasshopper sparrow. The survey shall</p>	

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			<p>occur at the sites of construction activity, as well as up to 300 feet away. If an active nest is found, no construction activity shall occur within 300 feet of the nest, which shall be monitored. Construction activities and timing may be modified to avoid impacts to nesting passerines or other ground-nesting birds.</p> <p>Frequent disturbance (every few days) may be initiated in some Project areas just prior to the nesting season to discourage nesting in the construction corridor.</p> <p>During both the construction and O&M phases, a speed limit of 15 mph shall be established and enforced. The speed limit shall reduce the potential for loss of bird species, including passerines, due to collisions with vehicles.</p> <p>A-BIO-7: Foraging Raptors and Bats. WTGs, power lines, poles, and guy wires shall be designed to minimize the likelihood of collisions. A County-approved biologist shall conduct a study to collect more detailed information on nesting and foraging raptors in the Project area. If construction activities (including removal or trimming of trees and shrubs) are to take place between February 1 and August 31, a biologist shall survey for raptors nests prior to the start of construction. If an active raptor nest is found, no construction activity shall occur within 300 feet of the nest, which shall be monitored.</p> <p>A-BIO-9: Avian and Bat Collision. The Applicant shall employ the design features to minimize the likelihood of avian and bat collisions with WTGs, meteorological towers, power lines, and poles, including use of WTGs with low rotational speed (approximately 10 to 23 revolutions per minute) and tubular towers. WTG blades shall not rotate when the WTG is not in operation. Meteorological towers that are not necessary during the operation phase shall be removed. Permanent meteorological towers shall be unguyed if feasible, or guyed and equipped with bird flight diverters. Power lines shall be underground where feasible. All overhead power lines shall be equipped with raptor perch guards and appropriately spaced to minimize the potential of raptor electrocution using the latest APLIC (2005) recommended guidelines for line spacing. USFWS-approved bird flight diverters shall be installed on the new power line segment. The diverters shall be installed per manufacturer's specifications; replaced when damaged or deemed defective; and maintained for the full length of the transmission line for the life of the facility.</p> <p>A-BIO-10: Avian and Bat Mortality Study. The Applicant shall retain a</p>	

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			<p>County-approved biologist to conduct an avian and bat mortality study prior to the start of construction and continuing for at least the first 2 years of operation. The study shall primarily document mortality of raptors and bats, but shall also generate data on mortality of all bird species in the Project area. The study shall generally follow the guidelines developed by the National Wind Coordinating Committee (Anderson et al., 1999) and include periodic searches for bird and bat carcasses at and near WTGs and poles. Information to be collected shall include descriptions of bird carcasses found relative to Project facilities and ongoing monitoring of nearby perching and nesting sites, as well as prey availability. Bat carcasses found shall also be described. Quarterly and annual reports shall be prepared that include presentation of data and analysis of Project design characteristics that may influence avian and bat susceptibility to mortality. Implementation of additional protection measures shall be developed or additional surveys performed based on the results of the post-construction study of avian and bat mortality.</p> <p>A-BIO-11: Small Mammal Control. The Applicant shall retain a County-approved biologist to develop and conduct a program to reduce the densities of California ground squirrels, rabbits, and other small mammals in the Project area during the construction phase, continuing for at least 2 years of Project operation.</p>	
VIS-2	Construction and Operations/ LWEF	Westernmost WTGs would be visible to users of Jalama Beach County Park.		Significant
VIS-4	Operations/ Power Line	Placement of the power line in the area of SR-1 introduces a significant new series of power poles that would silhouette against the skyline.	A-VIS-4: Power Line Relocation/Pole Height. At the southeast corner of the City of Lompoc, where the power line route would be visible from SR-1, the following measures shall be used, where technically feasible, to minimize visual impacts: longer spans between the poles; shorter poles; straddle ridgeline with two poles instead of a single pole on the ridge line.	Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
AQ-2	Construction/ LWEF, Power Line	Particulate matter emissions during construction would result from soil disturbance, travel on unpaved roads, mobile source exhaust emissions, and concrete batch plants.	A-AQ-2: Dust Control Plan. A Dust Control Plan shall be prepared by the Applicant.	Less than Significant
BIO-1	Construction/ LWEF, Power Line	Areas with native perennial grasslands and herbs that qualify for special protection may be disturbed.	<p>A-BIO-1: Worker Education and Awareness Program. The Applicant shall retain a County-approved biologist to develop and implement a worker education and awareness program (WEAP) specific to the Project. The program shall be presented to all individuals involved in the construction and O&M phases of the Project. The program shall include information focused on sensitive habitats and species.</p> <p>A-BIO-13: Pre-construction Plant Surveys. The Applicant shall retain a County-approved botanist to conduct appropriately timed pre-construction surveys for sensitive native plant species in all areas to be disturbed, including power line pole locations and access roads. If a "stand" of CNPS-listed or locally rare species shall be removed for the Project, the loss will be mitigated by collection of seeds or other propagules from the plants, which shall be used for restoration in the immediate area (if suitable habitat continues to be present) or on a nearby, suitable location. The upper 3 to 6 inches of soil (topsoil and seedbank) shall be salvaged in all areas where the terrain shall allow it. Topsoil shall be windrowed and marked to keep it separated from other spoil. Topsoil piles shall be stabilized by crusting with sprayed water to protect the soil from wind erosion. Salvaged topsoil shall be spread over all restored areas.</p> <p>A-BIO-15: Native Perennial Bunchgrass. The Applicant shall retain a County-approved botanist to determine the total area with at least 10 percent cover by native perennial bunchgrasses that shall be permanently removed for the Project versus the total area of native perennial bunchgrasses within the Project area. If the total area of permanent removal of native grassland is less than 10 percent of the total area of native grassland within the Project area, loss of native grasses shall be</p>	Less than Significant

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Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
			<p>mitigated by seedbank salvage and replacement as described for Horkelia. If the total area with at least 10 percent cover by native perennial bunchgrasses that shall be permanently removed for the Project exceeds 10 percent of the total area of native grassland within the Project area, seed shall be collected from the populations of native grasses on the Project sites prior to the start of construction. The seed shall be stored dry and included in the seed mixture applied to the restored areas. Drill seeding shall be performed for mixtures that include native grass seed.</p> <p>A-BIO-16: Site Restoration Plan. The Applicant shall retain a County-approved botanist to prepare and implement a site restoration plan. The restoration areas shall be monitored for a minimum of 3 years by a qualified botanist. Weed control shall be started within 3 months of planting, or earlier if weeds have begun to flower. Weeding shall proceed as frequently as necessary to prevent weeds from spreading off the Project site into the adjacent area and to prevent seed set. An effort shall be made to cut weeds before they develop seeds to minimize the spread of invasive weeds. Cut mustard shall be hauled off the site and disposed of where the toxins in the stems shall not affect other plants. Any new weed species not present in the Project area prior to construction shall be eradicated.</p> <p>A-BIO-18: Ground Disturbance. The Applicant shall minimize the amount of disturbance to the extent feasible including areas devoted to WTGs; power line poles; temporary and permanent access roads; stockpiles; staging, parking and lay down areas; areas where spoil shall be used to control erosion; and areas for associated facilities. Construction activities shall avoid sensitive areas, such as riparian zones, wetlands, forests, etc., where feasible. Parking, lay down, storage areas, and other sites of superficial disturbance shall be located in previously disturbed areas or in annual grassland (except in Gaviota tarplant habitat). Permanent access roads shall follow routes used for construction access to reduce the amount of new road construction. Vehicles and equipment access shall follow marked routes. Indiscriminant cross-country vehicle travel shall not be allowed.</p> <p>A-BIO-20: Erosion Control Seed Mixture Augmentation. The Applicant shall augment the erosion control seed mixture with native coastal scrub seed collected from the Project region. Species may include goldenbush, California sagebrush, black sage, coyote brush, small-leaved buckwheat, Lompoc monkeyflower, and the perennials Horkelia and Agoseris. Appropriate seed mixtures for use on grassland</p>	

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Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
			<p>and coastal scrub areas shall be developed in consultation with and approved by CDFG and County staff using seed native to the area between the Santa Ynez River and Hollister Ranch, and inland as far as SR-1. Commercially grown seed may be used if sterile or previously introduced to the Project area by the County, California Department of Transportation, or VAFB.</p> <p>A-BIO-21: Environmental Monitor. The Applicant shall employ a qualified Environmental Monitor during Project construction to monitor construction activities and ensure compliance with mitigation measures.</p>	
BIO-2	Construction/ LWEF, Power Line	Tree trimming or removal may be required during transport of WTGs or power line installation. A small portion of proposed road would affect tree-dominated vegetation; power line construction would occur close to wooded areas.	<p>A-BIO-17: Tree Protection and Replacement Plan. The Applicant shall retain a County-approved botanist or arborist to design and implement a tree protection and replacement plan in order to protect existing native trees and minimize adverse effects of grading and construction. No ground disturbance, including grading for buildings, access ways, easements, and subsurface grading, shall occur within the critical root zone of any native tree unless specifically authorized by the approved tree protection and replacement plan.</p> <p>See Mitigation Measures A-BIO-1, A-BIO-16, A-BIO-18, and A-BIO-21 above.</p>	Less than Significant
BIO-3	Construction/ LWEF, Power Line	Direct loss of wetlands, seeps, and springs is not expected; however, there is potential for loss should the project configuration change. Additionally, soil erosion or spills could reduce water quality.	<p>A-BIO-19: Protection of Creeks, Springs, and Wetlands. The Applicant shall make every effort to minimize the area and degree of impact to wetlands. The Applicant shall consult with a wetland hydrologist to design construction, so that the hydrological conditions supporting the wetland shall be conserved or restored to minimize wetland loss. If any wetland is permanently lost, it shall be mitigated by the creation of the same type of wetland in the Project area at an areal ratio of 2:1. If any wetland is temporarily disturbed, it shall be restored to its former condition at an areal ratio of 1:1. All wetland areas within 50 feet of ground disturbance shall be protected from siltation by placement of silt fence, straw bales (composed of certified weed-free straw), or other barriers. Barriers shall be in place prior to ground disturbance. No fueling of vehicles or equipment shall occur within 50 feet of the top of any creek bank or within 50 feet of any seep or spring. In the event that petroleum</p>	Less than Significant

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			<p>products escape into a creek, seep, or spring, every effort will be made to immediately remove the material using plastic sheets, absorbent blankets, or other materials, as necessary. Runoff from concrete shall be directed away from the top of any creek bank and from any seep or spring into a plastic-lined hollow. Dried concrete scraps will be removed. All trash and litter will be picked up and removed from the construction sites at the end of each day.</p> <p>See Mitigation Measures A-BIO-1, A-BIO-18, and A-BIO-21 above.</p>	
BIO-5	Construction/ LWEF, Power Line	Construction could result in the loss or disturbance of Gaviota tarplant.	<p>A-BIO-12: Gaviota Tarplant Disturbance. The Applicant shall retain a qualified botanist approved by CDFG and the County to address impacts to Gaviota tarplant and oversee flagging of the perimeter of all approved work areas in Gaviota tarplant habitat prior to ground disturbance. The Project design shall continue to be refined to minimize Gaviota tarplant habitat disturbance, the size of temporary excavation areas, and the size of areas where permanent loss shall occur. A determination shall be made of the total areas of (1) permanent habitat loss, (2) temporary excavations, and (3) surface disturbance for the construction phase of the Project's shall be developed, in consultation with CDFG botanists, to minimize the extent of habitat disturbance and to minimize potential "take" of individuals. Measures and procedures shall be developed that address potential future impacts during the operations phase of the Project. Areas of temporary disturbance shall be mitigated at 1:1 ratio.</p> <p>See Mitigation Measures A-BIO-1, A-BIO-16, A-BIO-18, A-BIO-20, and A-BIO-21 above.</p>	Less than Significant
BIO-6	Construction/ LWEF, Power Line	A number of other special-status species may be present in the power line corridor and could be lost during construction.	<p>A-BIO-14: Kellogg's and Mesa Horkelia Habitats. The Applicant shall track over Kellogg's and Mesa Horkelia habitat, where the terrain shall safely allow it, rather than widening roads beyond the permanent road width to minimize plant removal. The seedbank shall be salvaged and stockpiled separately from other spoil along roads and adjacent to other facilities constructed in Kellogg's and Mesa Horkelia habitat as described for Gaviota tarplant. Salvaged stockpiles shall be sprayed with water to crust the surface to minimize soil loss to wind erosion. Salvaged seedbank shall be spread over restored areas as described for Gaviota tarplant except that a normal mixture of mulch and binder shall be used. If the area is within Gaviota tarplant habitat, methods for the latter shall be used.</p>	Less than Significant

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			See Mitigation Measures A-BIO-1, A-BIO-13, A-BIO-16, A-BIO-18, A-BIO-20, and A-BIO-21 above.	
BIO-8	Construction/ LWEF, Power Line	Nesting birds could potentially lose nests through destruction or abandonment.	<p>A-BIO-8: Active Avian Nests and Roosting Bats. The Applicant shall retain a County-approved biologist to survey for active avian nests and roosting bats prior to the start of construction (including removal or trimming of trees and shrubs). The survey shall occur at the sites of construction activity, as well as up to 300 feet away. If an active raptor nest is found, no construction activity shall occur within 300 feet of the nest. If any other active avian species nest or roosting bats are found, construction activity shall be limited to within 150 feet of the area. The CDFG shall be consulted prior to any disturbance of bat maternity roosts. Active nests and roosts shall be temporarily marked with flagging to warn workers; and monitored by a biologist to ensure that construction activities do not impact these sites. Construction activities and timing shall be modified to avoid impacts to nesting avian species, and bat maternity roosts.</p> <p>See Mitigation Measures A-BIO-1, A-BIO-6, A-BIO-7, A-BIO-9, A-BIO-18, A-BIO-21, BIO-3, BIO-4, BIO-5, above.</p>	Less than Significant
BIO-9	Construction and Operations/ LWEF, Power Line	Direct and indirect impacts may occur to special-status wildlife species. Those with higher potential for injury or fatalities by vehicles or equipment, loss of habitat, or disturbance of burrows and nests include reptiles, raptors, and passerines.	<p>BIO-1: Pre-construction Wildlife Surveys. The Applicant will retain a County-approved biologist to perform a wildlife survey prior to the excavation of the WTG sites. The biologist shall survey the surrounding area out to a 300-foot radius from the WTG site prior to the use of any explosives. A biological monitor shall be present during construction of the WTG sites. The biologist shall ensure that wildlife do not become entrapped in the excavations during installation of the WTGs. Safeguards shall be implemented during daytime periods of nonactivity and overnight, such as a placing a platform over the entire excavation site, flush with the ground surface, or exclusionary fencing. A form of egress (such as a ramp) shall be placed within the excavated area to provide an exit to accidentally trapped wildlife. The biologist shall be responsible for ensuring these safeguards are in place on a daily basis.</p> <p>A-BIO-2: California Horned Lizard. The Applicant shall retain a County-approved biologist to survey construction areas, including the sites of footings for WTGs and power poles, access roads, and staging, parking, and lay down areas, for California horned lizards. Surveys shall be completed within 3 days before the start of initial vegetation clearance or ground disturbance in any affected area. If horned lizards</p>	Less than Significant

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			<p>are found, they shall be relocated to similar habitat at least 300 feet away from construction activity.</p> <p>A-BIO-3: Silvery Legless Lizard. The Applicant shall retain a County-approved biologist to survey for silvery legless lizards that could potentially occur in areas with Central Coast scrub and annual grassland with a shrub component. The biologist shall work with the equipment operator during initial vegetation clearance to salvage and relocate exposed animals and avoid impacts during grading.</p> <p>See Mitigation Measures A-BIO-1, A-BIO-6, A-BIO-7, A-BIO-8, A-BIO-9, A-BIO-10, A-BIO-18, A-BIO-21, BIO-1, BIO-3, BIO-4, and BIO-5 above.</p>	
BIO-11	Operations/ LWEF, Power Line	Birds and bats may collide with power poles and meteorological towers.	See Mitigation Measures A-BIO-6, A-BIO-7, A-BIO-9, A-BIO-10, A-BIO-11, BIO-3, BIO-4, and BIO-5 above.	Less than Significant
BIO-14	Construction and Operations/ LWEF, Power Line	Invasive species carried from other work sites may displace native plant species, and topsoil removal would result in soils less likely to support vegetation.	<p>BIO-2: Riparian Habitat Restoration. During consultation with the United States Army Corps of Engineers and CDFG for impacts to Honda Creek, a determination will be made regarding whether a riparian habitat restoration plan will be required. If so, the Applicant shall retain a qualified ecologist to prepare and implement a creek restoration plan for those creeks that may be disturbed, such as Honda Creek.</p> <p>See Mitigation Measures A-BIO-1, A-BIO-12, A-BIO-14, A-BIO-18, A-BIO-20, and A-BIO-21 above.</p>	Less than Significant
CULT-1	Construction and (potentially) Operations / LWEF, Power Line	Construction activities could result in significant impacts to 18 prehistoric archaeological sites.	A-CULT-1: Additional Archaeological Surveys. If it is determined that a Project element requiring ground disturbance cannot be located at least 100 feet from the mapped boundaries of an archaeological site, a new Phase 1 survey of that specific location shall be conducted. If this survey confirms that ground disturbance would occur within 100 feet of a site boundary, then an Extended Phase 1 investigation shall be conducted by employing a small number of shovel test units (STU). These STUs would be used to determine the actual subsurface boundary of the archaeological site relative to the proposed disturbance, and therefore verify whether or not the site would be affected by the disturbance. The STUs should be	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
			<p>20 inches in diameter and excavated in arbitrary 8-inch levels.</p> <p>If the presence of cultural materials is confirmed in areas that would be disturbed by Project construction, then Phase 2 subsurface testing shall be conducted to evaluate the nature, extent, and significance of the cultural resources. This evaluation program shall be designed to assess each archaeological site consistent with County Archaeological Guidelines.</p> <p>Should this program determine that the affected archaeological sites are significant, Phase 3 mitigation in the form of data recovery excavation shall be implemented consistent with County Archaeological Guidelines.</p> <p>A-CULT-2: Archaeological Isolates. In the case where ground disturbance is proposed within 30 feet of Archaeological Isolates LWF Iso-1, Iso-8, Iso-9, Iso-10, and Iso-11, a single STU should be excavated within 3 feet of the isolate in order to determine if there are subsurface deposits present. If the isolate cannot be relocated, the STU should be placed in the general vicinity of its mapped location. If subsurface cultural deposits are identified, they should be assessed and characterized in accordance with Mitigation Measure A-CULT-1.</p> <p>A-CULT-3: Road Preparation. Where existing graded ranch roads pass through an archaeological site, such roads may be utilized and widened through the site area by surfacing them with a 6-inch layer of imported gravel or soil that is free of cultural materials and recognizably different from the site soils. Surfacing the road with gravel should also occur for a distance of 100 feet beyond the mapped boundary of a site, except in cases where the boundary has been established through subsurface testing. Gravel from site LWF-111 should not be used for this purpose because it contains cultural material.</p> <p>A-CULT-5: Archaeological and Native American Monitors. A County-approved archaeologist and Native American monitor shall monitor ground disturbances in all areas containing known archaeological materials to ensure that any previously unidentified cultural resources are recorded.</p> <p>CULT-1: Avoidance of Cultural Resources. Avoidance of cultural resource sites is the preferred measure, and all impacts to CRHR eligible sites shall be avoided to</p>	

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
			<p>the greatest extent possible.</p> <p>CULT-2: Final Plan Notification. The Applicant shall include a note on a separate informational sheet to be recorded with the final plans for each construction phase designating the known archaeological sites as unbuildable areas, unless the archaeological site is formally evaluated by a County- approved archaeologist as ineligible for the CRHR or a Phase 3 data recovery program has been implemented. The areas shall not be identified as archaeological sites on the informational sheet.</p> <p>CULT-3: Temporary Fencing. Known unevaluated or determined significant archaeological sites and 50-foot buffer areas shall be temporarily fenced with chain link flagged with color or other material authorized by the County where ground disturbance is proposed within 100 feet of the site and a buffer.</p>	
CULT-2	Construction/ LWEF, Power Line	Impacts to unidentified subsurface archaeological resources may occur as a result of earth-disturbing activities	<p>A-CULT-4: Unanticipated Discoveries. Should human remains, historic or prehistoric artifacts, or other potentially important cultural materials be unearthed or otherwise discovered at any time during activities associated with the development of the Project area, work in the immediate vicinity of the discovery shall be suspended until a County- approved archaeologist and Native American representative are retained by the Applicant to evaluate the significance of the find pursuant to Phase 2 investigations as specified in the County Guidelines (County, 1993). If the cultural resources are found to be significant, they shall be subject to a Phase 3 mitigation program consistent with County Cultural Resource Guidelines and funded by the Applicant. In the event that suspected human remains are discovered, the County Coroner shall be contacted in accordance with state law.</p> <p>See Mitigation Measure A-CULT-5 above.</p>	Less than Significant
CULT-3	Construction/ LWEF, Power Line	Impacts to known and unidentified archaeological resources may occur as a result of increased public access via new or improved roads.	<p>A-CULT-6: Pre-construction Workshop. The County shall conduct a pre-construction workshop with cultural resource specialists, Native American monitors, and construction workers and personnel, stressing the importance of cultural resources and discussing penalties for their illicit disturbance.</p>	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
FPES-1	Construction and Operations/ LWEF, Power Line	The Project could result in an increased risk of wildland fires that could spread to more developed areas. Fire risks include vehicle exhaust, sparks, welding, parking on dry grass, and fuel tanks.	<p>A-FPES-1: Fire Protection Plan. The Applicant shall prepare a Fire Protection Plan that meets SBCFD requirements. The plan shall contain (but not be limited to) the following provisions:</p> <ul style="list-style-type: none"> a. All construction equipment shall be equipped with appropriate spark arrestors and carry fire extinguishers. b. A fire watch with appropriate fire fighting equipment shall be available at the Project site at all times when welding activities are taking place. Welding shall not occur when sustained winds exceed that set forth by the SBCFD unless a SBCFD-approved wind shield is onsite. c. A vegetation management plan shall be prepared to address vegetation clearance around all WTGs and a regularly scheduled brush clearance of vegetation on and adjacent to all access roads and other facilities. <p>A-FPES-2: Smoking and Open Fires. Smoking and open fires shall be prohibited at the Project site during construction and operations.</p>	Less than Significant
FPES-2	Construction and Operations/ LWEF	Although the Project contains many elements that would reduce potential for severe fires, fire risks would be increased through operation of the WTGs, Project Substation, power lines, and access roads. The O&M facility would include fire suppression infrastructure.	<p>FPES-1: Access Roads. Access roads shall remain passable by emergency vehicles for the duration of the Project. To the extent practicable, no access roads shall exceed a 12 percent grade. In the event an access road is unable to meet this requirement, the access road shall be constructed such that the portion of the roadway segment that exceeds the 12 percent grade is as short as possible. All roadways exceeding a 10 percent grade shall be paved or covered with aggregate acceptable to SBCFD. Turn-around requirements at the terminus of access roads shall be included in roadway designs. The final design shall be approved by the SBCFD, and the final access road map (including topographic map) shall be provided to both the SBCFD and the City of Lompoc Fire Department.</p> <p>A-FPES-3: Install Gravel around Substation. Gravel shall be placed around the perimeter of the Project Substation as a fire prevention measure.</p> <p>See Mitigation Measures A-FPES-1 and A-FPES-2 above.</p>	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
FPES-3	Construction and Operations/ LWEF, Power Line	The Project would have the potential to increase demand for fire protection services.	See Mitigation Measures A-FPES-1 and A-FPES-2 above.	Less than Significant
FPES-5	Construction and Operations/ LWEF, Power Line	The Project would introduce tall towers and a new power line into an Extreme Fire Hazard Area. In the event that controlled burns are required in the Project area, fire fighters would need to take the new structures into consideration.	See Mitigation Measure FPES-1 above.	Less than Significant
GEO-3	Construction/ LWEF, Power Line	Construction activities could increase the potential for landslides and cause or reactivate existing landslides.	A-GEO-2: Grading and Drainage Plan. The Applicant shall prepare a final Grading and Drainage Plan, designed to minimize erosion and landslides.	Less than Significant
LU-5	Operations/ LWEF	The Project would result in increased noise levels during construction. Noise from WTG operation would impact quality of life of certain residences near the turbine corridors.		Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
NOI-1	Construction/ LWEF	Some types of construction equipment would generate short-term noise impacts (Class II) to nonparticipating residences less than 2,000 feet from a construction area.	<p>A-NOI-1: WTG Maintenance. The Applicant shall maintain all WTGs in excellent working order to minimize operational noise impacts.</p> <p>NOI-1: Construction Hours. All Project construction activities shall be limited to between the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, unless otherwise approved by the County. No construction activities are allowed on state holidays.</p> <p>NOI-2: Telephone Number for Noise Complaints. The Applicant shall establish a telephone number for use by the public to report any significant undesirable noise conditions associated with the construction and operation of the Project. If the telephone is not staffed 24 hours per day, the Applicant shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the Project site during construction in a manner visible to passersby and the number shall be maintained until the Project has been operational for at least 1 year.</p> <p>NOI-3: Noise Complaint Resolution Plan. Throughout the construction and operation of the Project, the Applicant shall document, investigate, and evaluate all complaints and attempt to resolve all legitimate Project-related noise complaints</p> <p>NOI-4: Maintenance of Construction Equipment. Construction contractors shall be required to ensure that construction equipment is well tuned and maintained according to the manufacturer's specifications, and that the standard noise reduction devices on the equipment are in good working order.</p> <p>NOI-5: Resident Notification. The Applicant shall notify residences within 1 mile of any unusually loud construction activities, including the use of helicopters, blasting or pile driving, at least 1 week prior to their scheduled occurrence. Such activities shall be limited to between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise approved by the County.</p>	Less than Significant
NOI-2	Operations/ LWEF	Adjacent nonparticipating residences could be exposed to noise levels greater than 44	NOI-6: Acoustical Analysis. The LWEF will be designed and operated to ensure the noise level attributable to the Project does not exceed 44 dBA L_{eq} (1 hour) under normal operating conditions at any existing nonparticipating residences, or 59 dBA L_{eq} at participating residences. The Applicant shall submit to the County a detailed acoustical analysis of the final site layout and selected WTGs. All calculations or	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
		<p>dBa L_{eq} (50 dBA L_{dn}); and nine participating residences could be exposed to noise levels at or greater than 59 dBA L_{eq} (65 dBA L_{dn}).</p>	<p>modeling input and output files shall be made available to the County. The analysis shall include all available vendor sound-level data (specified as either guaranteed or expected), including a site-specific analysis of how sound power levels increase with wind speed.</p> <p>If a stall-controlled WTG is selected, sound power level data must be sufficient to estimate maximum sound levels under any stall condition because this could fall outside the range reported by IEC 61400-11 (IEC, 2006). Control strategies, if available, to reduce Project noise levels also shall be discussed and evaluated.</p> <p>NOI-7: Noise Monitoring and Control Plan. The Applicant shall prepare and submit a "Noise Monitoring and Control Plan" prior to zoning clearance.</p> <p>NOI-8: Maintenance Hours. Maintenance or other routine noise-generating activities within 1,600 feet of nonparticipating residences shall be limited to weekdays between the hours of 8:00 a.m. to 5:00 p.m. only, unless activities are for emergency repairs or as otherwise approved by the County.</p> <p>See Mitigation Measures NOI-1, NOI-2, and NOI-3 above.</p>	
PALEO-1	Construction/ LWEF, Power Line	<p>Ground-disturbing activities such as mechanical excavation, drilling, or trenching could affect paleontological resources.</p>	<p>Mitigation PALEO-1: Pre-construction Workshop. The County shall conduct a pre-construction workshop with a County-qualified paleontologist or individual qualified to identify paleontological resources and construction workers and other personnel. The workshop shall inform personnel what fossil resources are and what they look like, what to do and who to notify in case of a paleontological discovery, and penalties for the illicit disturbance of fossils.</p> <p>Mitigation PALEO-2: Implement Monitoring Program. Paleontological resources monitoring of mechanical disturbance only in Project areas known to have moderate to high sensitivity sediments will occur concurrently with those construction activities. Monitoring will be performed by an individual determined by the County to be qualified to identify paleontological resources. Based on field data, a decrease or increase in the monitoring of specific activities and areas may be identified.</p> <p>Mitigation PALEO-3: Discovery of Fossils. If fossils are found by the monitor or by construction personnel, the following actions will be taken:</p>	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
			<ul style="list-style-type: none"> a. Follow appropriate notification procedures b. Assessment of the find, usually in the field by the Project paleontologist and determination of recovery procedures c. Provisions for construction avoidance until a find is assessed and, if recovery is called for, scientifically recovered; construction-related excavations would continue in other areas away from the discovery d. Provisions for continued monitoring of construction in all appropriate areas while the find is being recovered e. Post-field initial study and curation preparation and subsequent curation. 	
PALEO-2	Construction/ LWEF, Power Line	Unauthorized collection of fossils by construction workers or operational personal may occur.	See Mitigation Measure PALEO-1 above.	Less than Significant
RISK-1	Operations/ LWEF	Risk to the public from WTG collapse would be limited, though one or two WTGs could be located within 500 feet of a short segment of road with light traffic. The Project is expected to present a low risk of blade throw; nonetheless, a risk exists.	RISK-1: Tower Failure and Blade Throw. WTGs shall not be sited within 500 feet of a public road.	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
TC-2	Construction/ LWEF, Power Line	Long, heavy trucks used to deliver equipment during construction could present safety concerns, and physical modifications to the roadway or nearby trees and power lines may be required.	<p>A-TC-1: Traffic Management Plan (TMP). The Applicant shall prepare a TMP for submittal to the County of Santa Barbara, City of Lompoc, and Caltrans. The purpose of the TMP is to address potential hazards associated with Project truck traffic. The plan will require measures such as informational signs, flagmen when equipment may result in blockages of throughways, and traffic control to implement any necessary changes in temporary lane configuration.</p> <p>A-TC-2: Traffic Mitigation Fees. The Applicant shall pay the appropriate traffic mitigation fees to the County of Santa Barbara.</p>	Less than Significant
TC-5	Construction/ LWEF, Power Line	Trucks carrying heavy equipment could damage existing streets.	See Mitigation Measures A-TC-1 and A-TC-2 above.	Less than Significant
WAT-5	Construction and Operations/ LWEF, Power Line	The Project could result in the removal or reduction of vegetation from the buffer zone of streams, creeks, or wetlands, which could affect water quality.	<p>A-RISK-1. The Applicant shall prepare a Hazardous Materials Management Plan that meets SBCFD requirements.</p> <p>A-RISK-2. Refueling vehicles shall have a sign listing pertinent contacts to notify in the event of a spill.</p> <p>A-RISK-3. All equipment shall be adequately maintained to minimize operational losses of hazardous materials and to reduce the risk of accidental spillage.</p> <p>A-RISK-4. Construction fueling shall be designated such that sensitive areas are avoided.</p> <p>See Mitigation Measures A-BIO-16, A-BIO-18, A-BIO-19, A-BIO-20, BIO-2, AND A-GEO-2 above.</p>	Less than Significant

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
AG-1	Construction and Operations/ LWEF, Power Line	Development of the LWEF and power line installation would result in the temporary and permanent disturbance of farmland.		Not Applicable
AQ-1	Construction/ LWEF, Power Line	Exhaust emissions from construction equipment would result in short-term emissions of NO _x and ROC.	A-AQ-1: Construction Equipment Emission Reduction Plan. A Construction Equipment Emission Reduction Plan shall be prepared by the Applicant based on the construction impact mitigation measures for equipment exhaust summarized in the Santa Barbara Air Pollution Control District guide.	Not Applicable
AQ-3	Operations/ LWEF, Power Line	Exhaust emissions from workers driving onsite and a forklift would result in long-term emissions of NO _x and ROC. Fugitive dust emissions from workers driving on unpaved roads would result in long-term emissions of PM ₁₀ .		Not Applicable
BIO-1	Construction/ LWEF, Power Line	Common and widely distributed vegetation communities may be disturbed and will be reseeded with native grasses.	See Mitigation Measures A-BIO-1, A-BIO-13, A-BIO-16, A-BIO-18, A-BIO-20, and A-BIO-21 above.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-2	Operations/ LWEF, Power Line	Only minor disturbances to common vegetation are expected from ongoing vegetation clearances for fire management and safety.	See Mitigation Measures A-BIO-1, A-BIO-16, A-BIO-17, A-BIO-18, and A-BIO-21 above.	Not Applicable
BIO-4	Construction/ LWEF, Power Line	A minor amount of riparian vegetation may need to be removed during bridge construction; erosion may result in minor impacts.	See Mitigation Measures A-BIO-1, A-BIO-17, A-BIO-18, A-BIO-19, and A-BIO-21 above.	Not Applicable
BIO-5	Operations/ LWEF, Power Line	Occasional disturbance to small areas of Gaviota tarplant habitat may occur from time to time.	See Mitigation Measures A-BIO-1, A-BIO-12, A-BIO-16, A-BIO-18, A-BIO-20, and A-BIO-21 above.	Not Applicable
BIO-7	Construction/ LWEF, Power Line	Individual animals could be injured or killed by vehicles, equipment, explosives, or large holes during construction.	See Mitigation Measures A-BIO-1, A-BIO-10, A-BIO-18, A-BIO-21, BIO-1, BIO-3, BIO-4, and BIO-5 above.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-9	Construction and Operations/ LWEF, Power Line	Direct and indirect impacts may occur to special-status wildlife species. Those with higher potential for injury or fatalities by vehicles or equipment, loss of habitat, or disturbance of burrows and nests include mammals.	See Mitigation Measures A-BIO-1, A-BIO-4, A-BIO-5, A-BIO-18, A-BIO-21, and BIO-1 above.	Not Applicable
BIO-12	Operations/ LWEF	Birds with habitat within 100 to 180 meters of WTGs may be displaced.	See Mitigation Measures A-BIO-6, A-BIO-7, A-BIO-8, A-BIO-10, BIO-4, and BIO-5 above.	Not Applicable
BIO-13	Construction and Operations/ LWEF, Power Line	Indirect impacts to wildlife during construction would result from a variety of sources, which could result in temporary displacement. During operations, increases to impacts compared to pre-Project levels would be minor.	See Mitigation Measures A-BIO-1, A-BIO-6, A-BIO-7, A-BIO-8, A-BIO-10, A-BIO-18 , above.	Not Applicable
EEU-2	Construction and Operations/ LWEF, Power Line	Construction and operation of the Project would result in consumption of diesel fuel and gasoline.		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
EEU-3	Construction and Operations/ Power Line	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.		Not Applicable
FPES-4	Construction and Operations/ LWEF, Power Line	The influx of workers may temporarily increase the need for paramedic services during construction, although only about 10 staff would be required during operations.		Not Applicable
FPES-6	Construction and Operations/ LWEF	For security reasons, the Applicant may request that Sudden Road become a private road, which would be required to have a lock that could be opened by fire and other emergency service providers.		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
GEO-1	Construction and Operations/ LWEF, Power Line	Risk of damage to structures by fault rupture is very low.		Not Applicable
GEO-2	Construction and Operations/ LWEF, Power Line	A major earthquake could result in ground shaking and liquefaction.	A-GEO-1: Seismicity. Project facilities shall be designed to Uniform Building Code Seismic Zone 4 standards.	Not Applicable
GEO-4	Construction/ LWEF, Power Line	Construction could accelerate or increase the potential for erosion from water and wind.	See Mitigation Measure A-GEO-2 above.	Not Applicable
GEO-5	Construction and Operations/ LWEF, Power Line	Structures would be designed to appropriate engineering standards and would not be susceptible to significant damage produced by expansive soils.	A-GEO-3: Expansive Soils. Soil analyses shall be completed for expansion potential. Once Project design has been developed and the criteria for the facility performance have been established, the soils engineer shall review these and modify them as appropriate. If further measures are considered necessary to mitigate problems posed by expansive soils, the following alternatives shall be considered: a. Over-excavation of expansive soils and replacement with non-expansive fill. b. Support of structures on drilled shaft foundations. c. Lime treatment of expansive subgrades. See Mitigation Measure A-GEO-1 above.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
GEO-6	Construction and Operations/ LWEF	Testing has determined that leach lines would be a suitable method of sewage effluent disposal.		Not Applicable
GEO-7	Construction and Operations/ LWEF, Power Line	Compressible soil and subsidence potential is considered low. Collapsible soil may be present within alluvial valleys and could cause settlement damage to structures and roadways.	A-GEO-4: Project Support Facilities. Project support facilities such as bridge foundations shall be sited on cut pads to provide relatively uniform foundation support and reduce differential settlement. Alternatively, structure foundations shall be designed to tolerate potential differential settlement. See Mitigation Measure A-GEO-1 above.	Not Applicable
LU-1	Construction and Operations/ LWEF, Power Line	The Project would comply with development standards because impacts to aesthetic/visual resources would be mitigated to the extent feasible through the implementation of mitigation measures identified in Section 3.2.5.8.		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
LU-2	Construction and Operations/ LWEF, Power Line	The Project would affect air navigation through the use of helicopters during construction and the installation of WTGs and meteorological towers.	Mitigation Measure A-LU-1: Compliance with FAA Regulations. The WTG lighting plan shall comply with FAA requirements.	Not Applicable
LU-3	Operations/ LWEF	The Project would be designed to avoid interference with VAFB operations, such as radar, telemetry antennas, and microwave links, specifically VTRS located on Sudden Peak. The Project footprint is within existing space launch hazard corridors that need to be evacuated periodically to ensure public safety and evacuation agreements would be pursued.	Mitigation A-LU-2: Compliance with VAFB Requirements. The final WTG layout and Project operations shall not conflict with VAFB operations.	Not Applicable
LU-4	Construction/ LWEF, Power Line	Construction activities would result in increased traffic in relatively quiet neighborhoods.		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
LU-5	Construction/ LWEF	The Project would result in increased noise levels during construction. Noise from WTG operation would impact quality of life of certain residences near the turbine corridors.		Not Applicable
RISK-2	Operations/ LWEF	Blade icing and ice throw would not be expected to occur; additionally, there would be limited human activity in the Project area.		Not Applicable
RISK-3	Operations/ LWEF, Power Line	Electromagnetic fields are a possible issue when associated with the siting of high voltage overhead power lines or cables less than 200-feet from residences.	Mitigation Measure RISK-2: Electromagnetic Field Effect Reduction. The 115-kV power line shall be constructed with low-cost EMF reduction measures incorporated where the line is located less than 200 feet (ground distance) from residences or other occupied structures. These measures may include siting the power lines 200 feet or more from residences or employing phasing between the conductors to minimize or eliminate EMF. The measure shall conform to those described in California Public Utilities guidelines.	Not Applicable
RISK-4	Construction and Operations/ LWEF, Power Line	Utility and turbine workers would be exposed to a number of risks, including electrical shock and falls. There is also risk to members of public who incidentally or		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
		intentionally enter the Project site.		
RISK-5	Construction and Operations/ LWEF, Power Line	Accidental spills or leakage of hazardous materials could occur, including fuels (gasoline and diesel), lubricants, motor oil, and paints.	See Mitigation Measures A-RISK-1, A-RISK-2, A-RISK-3, and A-RISK-4 above.	Not Applicable
TC-1	Construction/ LWEF, Power Line	Project-related construction traffic would temporarily affect traffic levels and LOS on Project area roadways.	See Mitigation Measures A-TC-1 and A-TC-2 above.	Not Applicable
TC-3	Construction/ LWEF, Power Line	Heavy-haul trucks would be required to transport large and heavy equipment subject to weight, height, and load limitations.	TC-2: Oversize Loads. Oversize loads require the implementation of special traffic control measures and require permits from affected jurisdictions. Since loads will be delivered to the site using state, city, and County roads, permits shall be required from Caltrans, the City of Lompoc, and the County of Santa Barbara. The Applicant shall obtain permits from the County of Santa Barbara to trim or remove trees, or both, on San Miguelito Road for the safe movement of oversized trucks. Longer trucks may have to be restricted to specific routes if turning radii are not sufficient on current truck routes. See Mitigation Measures A-TC-1 and A-TC-2 above.	Not Applicable
TC-4	Construction/ LWEF, Power Line	During peak construction, several oversized trucks per day could slow traffic and necessitate temporary blockages of intersections.	Mitigation Measure TC-1: Roadway Repairs. The Applicant shall enter into an agreement with affected jurisdictions to ensure that any damage to roadways attributable to Project traffic is mitigated through repair or reconstruction to original conditions. Roads will be photographed or videotaped prior to construction to ensure that final repairs are sufficient to return the road to pre-construction conditions. The Applicant shall also comply with the requirements of the hauling permits from affected jurisdictions prior to the construction of the Project.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
			See Mitigation Measure A-TC-2 above.	
TC-5	Construction and Operations/ LWEF, Power Line	Project vehicles could track dust and soil onto public roads.	See Mitigation Measure A-TC-2 above.	Not Applicable
VIS-1	Construction and Operations/ LWEF, Power Line	WTGs and related structures have the potential to be visible in the vicinity of the Project.	A-VIS-1: Materials Storage. All construction materials and excavated materials shall be stored away from San Miguelito Road, whenever possible, to reduce impacts on mountain views. A-VIS-2: Location of Construction Activities. Construction activities and materials storage shall be confined to within the WTG right-of-way, staging areas, and the Project Substation and operations and maintenance (O&M) facility areas.	Less than Significant
VIS-3	Operations/ LWEF	WTGs would be visible throughout the SR-1 corridor and the Lompoc Valley		Not Applicable
VIS-5	Construction and Operations/ LWEF, Power Line	Construction and operation of the power line would be visible from public roadways.	Mitigation Measure A-VIS-3: Power Line. Where possible, particularly on nonparticipating ranches, the power line shall follow the existing distribution lines. Where possible, existing distribution and power lines shall be built below the proposed power line to consolidate facilities.	Not Applicable
WAT-1	Construction/ LWEF, Power Line	The proper implementation of erosion and sedimentation control would reduce erosion rates during and after construction to essentially natural	A-WAT-1. Erosion Control Plan. An Erosion Control Plan for Project construction shall be developed by a registered engineer to minimize potential impacts to surface water quality during construction activities. Best available erosion and sediment control measures shall be implemented during grading and construction. If grading needs to be done outside of the dry season, the Applicant shall coordinate grading work with the County and shall follow all applicable guidelines. Rainy season erosion control measures shall be utilized to control runoff and erosion in the	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
		rates.	<p>event that revegetation is not completed prior to the rainy season.</p> <p>Sediment control measures shall be maintained for the duration of the grading period and until graded areas have been stabilized by structures, long-term erosion control measures or landscaping.</p> <p>Construction entrances and exits shall be stabilized using gravel beds, rumble plates, or other measures to prevent sediment from being tracked onto adjacent roadways. Any sediment or other materials tracked off site shall be removed the same day as they are tracked using dry cleaning methods.</p> <p>See Mitigation Measures A-BIO-19 and A-GEO-2 above.</p>	
WAT-2	Construction/ LWEF, Power Line	Water quality could be affected by small fuel or oil spills, concrete, and trash and litter during construction.		Not Applicable
WAT-3	Construction and Operations/ LWEF, Power Line	Although some acres will be temporarily and permanently disturbed by changes to stormwater runoff/flooding, hydrologic conditions would remain about the same as current conditions.		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
WAT-4	Construction and Operations/ LWEF	The Project would not substantially deplete groundwater supplies or interfere with groundwater recharge. Effluent from facility drains would be disposed of through a proposed leach line system.		Not Applicable

TABLE ES-4
Summary of Class IV Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
AG-1	Construction and Operations/ LWEF, Power Line	Development of the LWEF and power line installation would provide financial support to property owners.		Beneficial
EEU-1	Operations/ LWEF, Power Line	The Project could generate up to 350 million kWh of electricity annually.		Beneficial