



Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead



Richard J. Bruckner
Director

NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT

Wildflower Green Energy Farm

County Project No. R2010-00256-(5)
RENV201000063
RCUPT201000121

THIS DOCUMENT COMPRISES THE NOTICE OF PREPARATION IN ACCORDANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

Project Address: 16700 Lancaster Road, Antelope Valley, CA 93536

Project Description: Development of a solar/wind energy farm, designed to generate up to 300 megawatts (MW) of electricity, and an off-site underground Gen-Tie Line, to carry the electricity generated by the Energy Farm to the regional electricity grid. The Energy Farm would include approximately 100 solar photovoltaic panel arrays and approximately 50 wind turbines, along with an operations and maintenance facility, access roads, water infrastructure, an underground electrical energy collection system and a substation. The Gen-Tie Line would interconnect with the City of Los Angeles Department of Water and Power's Barren Ridge-Rinaldi transmission line (1.3 miles east) or to Southern California Edison's Antelope Valley Substation (4.8 miles east).

APPLICANT:
Antelope Power, LLC

PREPARED BY:
Matrix Environmental

PREPARED FOR:
County of Los Angeles

November 4, 2011

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Los Angeles County
Department of Regional Planning

Planning for the Challenges Ahead



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Director

**NOTICE OF PREPARATION
AND
NOTICE OF SCOPING MEETING**

DATE: November 4, 2011

PROJECT TITLE: WILDFLOWER GREEN ENERGY FARM
Project No. R2010-00256-(05)/Conditional Use Permit
201000121/Environmental Assessment 201000063

PROJECT ADDRESS: 16700 Lancaster Rd. and 47031 W. 167th St.
Lancaster, CA 93536

PROJECT APPLICANT: Antelope Power, LLC
421 SW Sixth Ave., Ste. 1000
Portland, OR 97204 USA
T +1.503.416.0800
F +1.503.416.0801

CEQA LEAD AGENCY: County of Los Angeles
Department of Regional Planning
320 W. Temple St., Rm. 1348
Los Angeles, CA 90012

The County of Los Angeles is the lead agency and will prepare an Environmental Impact Report (EIR) for the Proposed Project identified below. In compliance with Section 15082 of the California Environmental Quality Act (CEQA) Guidelines, the County of Los Angeles is sending this Notice of Preparation (NOP) to each responsible agency, interested parties and federal agencies involved in approving the Proposed Project and to trustee agencies responsible for natural resources affected by the Proposed Project. Within 30 days after receiving the NOP, each agency shall provide the County of Los Angeles with specific written details about the scope and content of the environmental information related to that agency's area of statutory responsibility.

The purpose of this NOP is to solicit the views of your agency as to the scope and content of the environmental information germane to your agency's statutory authority with respect to the Proposed Project. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval for the Proposed Project.

PROJECT LOCATION AND ENVIRONMENTAL SETTING

The proposed Wildflower Green Energy Farm (the "Project") is located on 3,708 acres of private land within the western portion of the Antelope Valley, in unincorporated Los Angeles County. The Project consists of two main components: (1) a solar/wind Energy Farm, designed to generate up to 300 megawatts (MW) of electricity; and (2) an off-site underground Gen-Tie Line, to carry the electricity generated by the Energy Farm to the regional electricity grid. Collectively, the Energy Farm and Gen-Tie Line corridor comprise the "Site." The Site is located within Sections 5, 6, and 8 in Township 7 North, Range 14 West; Sections 1 and 12, Township 7 North, Range 15 West; and Sections 26 and 26 in Township 8 North, Range 15 West (San Bernardino Meridian).

Geographically, the Site is located between the southern end of the Mojave Desert and the Tehachapi Mountain Range, within the Antelope Valley area of unincorporated Los Angeles County. Antelope Valley consists of desert terrain bounded by the San Gabriel Mountains to the south, portions of Kern County to the north, Ventura County to the west, and San Bernardino County to the east. The Antelope Valley is characterized by relatively flat land, punctuated by occasional buttes. Generally, the area alluvium is composed of unconsolidated to moderately consolidated, poorly sorted cobbles, gravel, sand, silt, and clay. Peak elevations within the Antelope Valley range from 2,300 to 3,500 feet above mean sea level. Portal Ridge rises beyond the Site to the southwest, along the northern edge of the Angeles National Forest.

The Project would be located within the Fairmont area, approximately 1 mile south of Avenue D (State Route 138) and 3.3 miles west of the City of Lancaster, California. The Site is located near the northern boundary of Los Angeles County, approximately 20 miles east of Interstate 5 and 12 miles west of the Antelope Valley Freeway (State Route 14). The Energy Farm site is located immediately west and south of the Antelope Valley California Poppy State Natural Reserve ("Poppy Reserve"), a state-operated park, and immediately northeast of the Fairmont Reservoir, part of the water control system for the Los Angeles Aqueduct. Lancaster Road runs through the center of the Energy Farm property in a northwest/southeast direction. Access to this property from the north is from 170th St. West and from Munz Ranch Road to the south and east. The off-site transmission line would be located within a 1/8-mile corridor, along the alignment of Avenue J, extending due east of the southeast corner of the Energy Farm site. The line would extend 1.5 miles to a new point of interconnection with the Los Angeles Department of Water and Power's Barren Ridge-Rinaldi Transmission Line Corridor, **or** 4.8 miles to an existing point of interconnection with Southern California Edison's Antelope Valley Substation, located 4.8 miles from the Site.

The topography within the Energy Farm site varies, with the lowest elevation being approximately 2,700 feet above mean sea level (msl) located near Broad Canyon in the northern portion and the highest elevation being approximately 2,900 feet above msl located near the California Aqueduct in the southwestern portion. The northern portion consists of moderately sloping plateaus from north to south, an extension of the Fairmont Butte, a dry wash area and extensive areas of relatively flat land. The southern portion consists of moderately sloping plateaus with limited canyons.

The landscape of the Energy Farm site is primarily composed of mixed grasslands and has been used since the 1950s for grazing, ranching, and hay farming. Approximately 1,500 acres have been utilized for ranching activities such as horse breeding, boarding and training and related irrigated farming of alfalfa to feed the horses. The ranch, known as Healy Farms, is concentrated in several barns, corrals, hay fields, a residence and a shop building near the intersection of 170th Street West and Lancaster Road. Fallow alfalfa fields, cattle grazing, dry washes, scrubland, two residential sites and a hunting club occur in the southern portion of the Energy Farm. Shea's Castle, a historic property currently used for cattle ranching, also is in the southern portion of the site. Vegetation throughout the Site mainly consists of alfalfa grasses (planted as a crop), desert grass and sagebrush scrub. Portions of the northern and central areas of the Proposed Energy Farm overlap land designated by the County as the Fairmont and Antelope Buttes Significant Ecological Area (SEA No. 57).

The rural area surrounding the Site consists of grazing land and other light agricultural uses, low density single-family residences, a church, open space areas, and the Poppy Reserve. The California Aqueduct borders the southwestern boundary of the Site, and the Fairmont Reservoir, a Los Angeles Department of Water and Power water control facility, is located approximately 1,800 feet from the southwestern corner of the Energy Farm site. Immediately north (see Figure 3) is the approximately 2,100-acre site of the proposed AV Solar Ranch One project, a 230-MW solar photovoltaic electric power generation facility that has been approved for development by the County of Los Angeles. The nearest residential communities are Fairmont, located approximately 1 mile to the west; Antelope Acres, located approximately 5.2 miles to the east/northeast; and Neenach, located approximately 8.7 miles to the northwest, along the north side of State Highway 138.

PROJECT SUMMARY

Antelope Power, LLC (the "Applicant") is proposing to construct, own, and operate the Wildflower Green Energy Farm (the "Project"). The Project would generate up to 300 megawatts (MW) of electricity to help meet existing and future regional electricity needs, particularly during afternoon peak electricity demand periods. With clean solar and wind energy technologies, the Project would contribute towards meeting California legislative initiatives to increase the proportion of electrical energy produced from clean/renewable sources and to reduce greenhouse gas emissions associated with the energy sector of the economy.

The Energy Farm would be comprised of a "Northern Energy Farm" and a "Southern Energy Farm." The Northern Energy Farm would include approximately 100 1-MW solar photovoltaic panel arrays and approximately 33 3-MW wind turbines, along with an operations and maintenance facility, access roads, water infrastructure and an underground electrical energy collection system. The Southern Energy Farm would contain approximately 17 3-MW wind turbines, along with access roads, an underground electrical energy collection system and a substation. The substation would transform the 34.5-kilovolt ("kV") electricity received from the on-site collection system into 230 kV for transmission to the regional electricity grid. The increased voltage would be carried through an underground duct, referred to as the Gen-Tie Line, for an interconnection with the LADWP's Barren Ridge-Rinaldi transmission line approximately 1.5 miles east, or to SCE's Antelope Valley Substation,

approximately 4.8 miles east. The number and placements of solar panels and wind turbines may be adjusted somewhat, due to final micro-siting factors involving the site's topography and meteorology, improvements in wind and solar technologies, financing, and regulatory considerations. Other major Project features include 342 acres of conservation land, approximately 1,000 acres of wildlife/habitat management land, approximately 6.7 miles of pedestrian/equestrian trails and three 300-foot-wide wildlife movement pathways.

In order to implement a Project design that generates maximum electricity output that is also sensitive to the environment, development areas have been defined for both the Northern and Southern Energy Farms. Development areas are those locations within the Project Site where Project development could occur. Actual siting and construction disturbance areas would be smaller, but these development "envelopes" have been created to provide flexibility for micro-siting and also to limit the extent of potential ground disturbance. On an overall basis, a total of approximately 2,345 acres (approximately 63 percent of the total Energy Farm site) are located within the designated development areas. Of this total, approximately 1,720 acres are located in the Northern Energy Farm, where both solar and wind technologies would be deployed, whereas the designated development areas within the Southern Energy Farm total 625 acres.

Implementation of the Project as proposed would result in construction disturbance across a total of approximately 970 acres, which translates to 23 percent of the entire Energy Farm. Of this total, 870 acres would occur in the Northern Farm, and 100 acres would occur in the Southern Farm. Some of the construction area would involve a temporary impact, with land restoration to occur immediately after construction. Total permanent ground disturbance would affect approximately 840 acres, with 780 acres in the Northern Farm and 60 acres in the Southern Farm. Based on these acreages, permanent site disturbance would occur across approximately 37 percent of the Northern Energy Farm and approximately 3.8 percent of the Southern Energy Farm, or 22.7 percent of the total site.

Construction of the Project is anticipated to take up to 18 months, tentatively scheduled to begin during the fourth quarter of 2013, and finish between the fourth quarter 2014 and the second quarter 2015. This schedule is conceptual and subject to change, including potential acceleration, depending on conditions within the regional energy markets, timing of project approvals, financing, availability of required materials and equipment, etc.

A comprehensive description of the Project is provided as Attachment 1.

ENTITLEMENT REQUIREMENTS AND DISCRETIONARY APPROVALS

Governmental approvals required or anticipated for implementation of the Project include, but may not be limited to, the following:

AGENCY NAME	PERMIT/APPROVAL/COORDINATION ROLE
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Federal Agencies

Environmental Protection Agency	Section 404 Clean Water Act Review
U.S. Fish and Wildlife Service	Federal Endangered Species Act Section 7 consultation and incidental take authorization
Federal Aviation Administration	Notice of Proposed Construction (Form 7461-1) Hazard Determination; Approval of Lighting Plan
Department of Defense/ Homeland Security	Consultation Regarding Military Air Space
Other Federal Agencies	Other actions that may be required to implement the Project.

State Agencies

Antelope Valley Air Quality Management District	Comply with restrictions concerning visible emissions, nuisance emissions, fugitive dust
Lahontan Regional Water Quality Control Board	Porter Cologne Water Quality Act, Clean Water Act, National Pollutant Discharge Elimination System Permit; Water Quality Certification, Discharges to Surface Water, Regional General Permits, Report of Waste Discharge (ROWD)/Waste Discharge Requirements (WDR)
State Water Resources Control Board	Statewide General Permit: Water Quality Order 99- 08-DWQ: General Permit for Storm Water Discharges Associated with Construction Activity
California Department of Fish and Game	Streambed Alteration Agreement; State Endangered Species Consultation Incidental take permit/authorization
California Public Utility Commission	Interconnect Approval
California Department of Transportation	Encroachment of Right-of-Way; Transportation Permits for Hauling Oversized Loads
Other State Agencies	Other actions that may be required to implement the Project.

Local Agencies

County of Los Angeles	CEQA Review
	Conditional Use Permit for construction in an agricultural zone; for on-site grading (cut and fill) of approximately 4,100,000 cubic yards of soil; and for development within an SEA
	Grading Permit, Building Permit
	County Road Encroachment Permit; Transportation Permits for Hauling Oversized Loads
	Fuel Modification/Vegetation Management Plan
City of Lancaster	CEQA Review and Conditional Use Permit.
Other Local Agencies	Other actions that may be required to implement the Project.

POTENTIAL PROJECT IMPACTS: Because of the entitlement requirements identified above, and based on the Initial Study determination (see Attachment 2, Initial Study), an Environmental Impact Report (EIR) is necessary for the proposed Project. Based on the Initial Study's preliminary assessment of potential environmental impacts that could occur as a result of the proposed Project, the topics to be addressed in the Wildflower Green Energy Farm EIR will include at least the following:

Potential Hazards

- Geology and Soils
- Flood
- Wildland Fire
- Waste Disposal
- Solid Waste Dumps

Potential Impacts to Resources

- Water
- Air
- Biota
- Cultural and Paleontological Resources
- Agricultural/Forest
- Visual Qualities

Potential Impacts to Services

- Traffic/Access
- Fire/Sheriff Services

Potential Other Impacts

- Greenhouse Gas Emissions
- Noise
- Land Use
- Recreation

- Cumulative Effects

To provide a complete record of the County's environmental decision-making, environmental issues that do not rise to the level of significant impacts will be addressed in the EIR in a separate section entitled "Impacts Found to Be Less than Significant."

NOTICE OF PREPARATION REVIEW AND COMMENTS

The review period for the NOP will be from November 4 to December 5, 2011.

Due to the time limits mandated by state law, your response must be sent at the earliest possible date, but not later than December 5, 2011. Please direct all written comments to the following address. In your written response, please include the name of a contact person in your agency.

Anthony Curzi
Los Angeles County Department of Regional Planning
Zoning Permits North Section
320 W. Temple St., Rm. 1348
Los Angeles, CA 90012
Tel: (213) 974-6461
Fax: (213) 626-0434
Email: acurzi@planning.lacounty.gov

SCOPING MEETING

To assist in local participation, a Scoping Meeting will be held to present the proposed Project and to solicit suggestions from the public and responsible agencies on the content of the Draft EIR. The Scoping Meeting will be held at the Holiday Inn located at 38630 Fifth St. W. in Palmdale, on **November 17, 2011**, from 6:00 p.m. to 8:00 p.m.

REVIEW MATERIALS

The County of Los Angeles Department of Regional Planning is soliciting input based on your views and opinions concerning the scope of the EIR for the Proposed Project. To facilitate your review, the following materials are attached:

- Project Description (Attachment 1)
- Los Angeles County Initial Study (Attachment 2)
- 1,000-Foot Radius Land Use Map (Attachment 3)

Additional copies of the Notice of Preparation are available for public review on the Department of Regional Planning website <http://planning.co.la.ca.us/case.htm>.

Project Description

1. Introduction

Antelope Power, LLC (the “Applicant”) is proposing to construct, own, and operate the Wildflower Green Energy Farm (the “Project”) that includes: (1) a solar/wind energy facility with a generating capacity of up to 300 megawatts (MW) (the “Energy Farm”), and (2) an underground 230-kilovolt (kV) gentie line (the “Gen-Tie Line”) that would connect the Energy Farm either to Southern California Edison’s (“SCE”) existing Antelope Substation in the City of Lancaster (a distance of 4.8 miles), or to Los Angeles Department of Water and Power’s (“LADWP”) Barren Ridge–Rinaldi renewable transmission line corridor (a distance of 1.5 miles).

The Energy Farm is comprised of two parts: a “Northern Energy Farm” containing all of the solar arrays and approximately two-thirds of the wind turbines, and a “Southern Energy Farm” containing the remaining one-third of the wind turbines (see Figure 8 on page 26). The Project also includes two voluntary conservation areas to protect habitat and provide buffers adjacent to the Fairmont and Antelope Buttes Significant Ecological Area No. 57 (the “SEA”) and the Antelope Valley California Poppy Reserve State Natural Reserve (the “Poppy Reserve”). It also includes extensive open space/habitat management areas, three wildlife movement pathways and pedestrian/equestrian trails to provide public access through the site with scenic viewing opportunities of the Poppy Reserve, the SEA and more distant mountain features.

The purpose of the Project is to provide utility companies with electricity generated from clean renewable wind and solar technologies. The Project is located within the western portion of the Antelope Valley, on approximately 3,708 acres of privately owned, previously disturbed land within the County of Los Angeles (the “Site”). In addition, the Project includes a 0.125-mile-wide Gen-Tie Line corridor that will extend east, from the southeastern corner of the Site, along Avenue J, to an interconnection with either LADWP or SCE regional transmission facilities located approximately 1.4 and 4.8 miles from the Energy Farm site, respectively. The Gen-Tie Line corridor is located within the jurisdiction of the County of Los Angeles, except for the last mile of the SCE option, which is located within the City of Lancaster. The permanent footprint of the Gen-Tie Line upon its ultimate placement within the corridor will be 20 feet wide.

The Project seeks to optimize the unique renewable energy generation potential of the Site, while minimizing potential adverse environmental effects. The Applicant would develop the Energy Farm through a site plan that harnesses both the wind and solar resources of the Site, with a combined output of up to 300 MW of renewable/green energy. The Applicant has prepared a site plan that sets forth a proposed number and configuration of wind turbines and solar panels based on current technology and knowledge of the Site's localized topographic features and meteorological resources. Nonetheless, renewable energy technology is undergoing rapid advancements and the Applicant is collecting meteorological data, geotechnical analysis, and other technical studies that may necessitate minor adjustments in the final siting of the on-site wind turbines and solar panels.

To account for this, this Draft Environmental Impact Report ("Draft EIR") analyzes the Project's potential impacts using designated development areas and a series of specific development standards which provide an envelope of measurable impacts for siting the final project configuration. Under this approach, the Draft EIR analyzes the most impactful possible scenario for developing the site and measures the outer limits of potential environmental disturbance associated with the Project. Conceptually, the development footprint is divided into zones of land that will either experience temporary impacts, permanent impacts, or remain undisturbed as habitat zones. This design reduces the overall environmental impact of the Energy Farm and allows the Applicant to install the energy facilities strategically on the Site. Similarly, the scope of analysis in the Draft EIR provides the Applicant with a degree of flexibility for final siting of energy generation equipment. For example, the Energy Farm will contain a maximum of fifty (50) wind turbines. If the Applicant selects 3-MW-rated capacity wind turbines, then the maximum 50 wind turbines placed throughout the Energy Farm would have an output potential of up to 150 MW of electricity, whereas, with an average of 1 MW generation capacity per solar array, 100 solar arrays would generate 100 MW of electricity. As wind and solar technologies evolve and become more efficient, more output could be created by either or both, and the relative contribution of wind and solar generation relative to the total Energy Farm output could vary. However the maximum number of wind turbines would be capped at 50.

Supporting the wind turbines and solar arrays would be access and maintenance roads, a 34.5-kV subsurface electricity collection system, an on-site electrical substation, and an operations and maintenance building ("O&M"), as well as the off-site Gen-Tie Line that would transmit the electricity from the Energy Farm to either the SCE or LADWP point of interconnection to the electrical grid. If the LADWP point of interconnection is implemented, a switchyard would also be constructed adjacent to the LADWP transmission line. Conversely, should the project interconnect at the existing Southern California Edison Antelope substation's 220-kV busbar, a riser structure would be built just outside the

substation to bring the subsurface geologic above ground and into the busbar. The O&M building site, in addition to the 15,975-square-foot building itself, would include a surface parking lot, firefighting infrastructure (e.g., water tank, water well, fire pump, fire hydrant, etc.), septic system, and temporary construction support facilities (i.e., temporary construction building and lay down yard).

The Project would be an important asset in serving electrical customers as it contributes towards meeting California legislative initiatives by providing a long-term source of renewable electricity. Most important of these, the California Renewable Portfolio Standard (“RPS”) established in 2002 (“Senate Bill 1078”), amended in 2006 (“Senate Bill 107”), and codified into State Law in 2011 by Senate Bill 2 (1x), requires retail electricity sellers, investor and publicly owned utilities, municipal utilities, and community choice aggregators to obtain 20 percent of their electricity supply from renewable energy sources by 2010 and 33 percent of their supply from renewable energy sources by 2020.

Also of note is that in 2006, the State of California passed the California Global Warming Solutions Act (“Assembly Bill 32”), which requires the state to reduce emissions of carbon dioxide (“CO₂”) and other greenhouse gas emissions (“GHGs”) from sources such as electricity production to 1990 emission levels (a 25 percent reduction) by 2020. Furthermore, Senate Bill 1368, enacted in 2006, prohibits California electric utilities from constructing power plants or entering into long-term power purchase contracts with facilities that do not meet the aforementioned GHG-emission standards. The Project’s electricity production would therefore contribute to meeting the state’s energy demands via renewable resources that support the California Energy Commission’s (“CEC’s”) energy demand projections. Contributing to the importance of the Project is a recent decision on the implementation of the RPS, whereby the California Public Utilities Commission (“CPUC”) capped the amount of renewable energy that can be imported from out-of-state facilities to no more than 50 percent prior to December 31, 2013, and declining thereafter to no more than 25 percent beginning January 1, 2017. Thus, the Project would contribute to both satisfying the increased demand for electricity while simultaneously contributing towards meeting California’s RPS, GHG energy, and environmental policy obligations.

2. Project Objectives

a. Project Purpose

The Wildflower Renewable Energy Farm Project (hereafter referred to as the “Project”) is intended to generate clean, locally produced renewable energy that would provide electrical power to meet the growing demand from utility customers, while implementing key strategies in California’s efforts to utilize electricity produced from renewable energy sources which reduce greenhouse gas emissions, air pollution, and

water use through in-state alternatives to thermal energy generation processes that rely on the combustion of oil, gas and/or coal resources or a nuclear reactor process.

b. Project Objectives

Specific objectives were developed to guide the design and implementation strategies identified in the proposed project plans; these are described below.

Provide a Reliable, Cost-Effective and Near-Term Source of Renewable Energy to Meet California Renewable Energy Portfolio Standards and Greenhouse Gas Reduction Targets

A series of substantive and far-reaching legislative initiatives have been advanced at the state level in the last decade focused on the following: (1) requiring the generation of electricity via renewable energy sources; and (2) promoting a shift from fossil/carbon-based fuels to clean/renewable energy sources as a key strategy to reduce greenhouse gas emissions (GHGs), air pollution, and water use associated with the energy sector.¹

The Project proactively and comprehensively advances the achievement of all of these legislative initiatives by developing a hybrid wind/solar renewable energy facility with a nameplate capacity of up to 300 megawatts (MW) of electrical energy, enough renewable energy to power more than 114,000 California households. At this level of energy production, the Project provides a utility-scale clean energy source that is viable in today's energy market and one that is anticipated to remain viable over the long-term as a function of the Project Site's unique natural wind and solar resources. The project site benefits from its composition of large, contiguous, private land parcels that are difficult to find in the area. In addition, the Project Site is located within proximity to points of interconnection with the regional electricity grid system and would require minor additional electrical infrastructure and network upgrades.

¹ *The California Renewable Portfolio Standard (RPS) established in 2002 (Senate Bill 1078) and amended in 2006 (Senate Bill 107) requires retail sellers of electricity to obtain 20 percent of their supply from renewable energy sources by 2010 and 33 percent of their supply from renewable energy sources by 2020. Senate Bill 2 (1x) was signed into law in April 2011, which requires all electricity providers, investor owned utilities, municipal or other public utilities, and community choice aggregators to meet these targets. In 2006, the State of California passed the California Global Warming Solutions Act (Assembly Bill 32), which establishes a goal of reducing statewide emissions of carbon dioxide (CO₂) and other greenhouse gas emissions (GHGs) from sources such as electricity production to 1990 emission levels (a 25 percent reduction) by 2020. Senate Bill 1368, enacted in 2006, prohibits California electric utilities from constructing power plants or entering into long-term energy purchase contracts with facilities that do not meet the aforementioned GHG emission standards.*

By adding a significant local source of clean renewable electrical power generation, the Project helps avoid a need to build additional thermal energy facilities to meet peak load demands, such as natural gas-fired “peaker plants” that are inefficient and create more air pollution and water use than other types of thermal generation.

Optimize and Maximize the Natural Energy Assets of the Site

The Renewable Energy Transmission Initiative (RETI) is a statewide planning process to identify the transmission projects needed to accommodate California’s renewable energy goals. This process has resulted in the identification and refinement of Competitive Renewable Energy Zones (“CREZs”) that hold the greatest potential for cost-effective and environmentally responsible renewable energy development. The Project is located in CREZ 47-Fairmont, which is ranked as one of the most economical zones to produce renewable energy (ranked 6th out of 21 zones) and ranked reasonably with respect to environmental concerns (ranked 5.3 on a scale of up to 12, with 12 representing highest environmental sensitivities).

The significant on-site wind resources created by the Site’s proximity to the intersection of the San Gabriel and Tehachapi Mountain ranges at the west end of the Antelope Valley produces a rare and extremely valuable late-afternoon, on-peak energy resource at exactly the time the electrical grid has its highest energy demand. This is complimented by an abundance of solar radiation, creating a site with unique natural energy resources that can be converted into electrical power through existing and improving renewable energy technologies. Optimizing these resources through an intelligent project design to produce electrical power on a reliable basis is essential to the success of this project. Achieving the full energy value of this site is dependent upon effective siting of the wind turbines, in particular.

Provide Additional Electricity for the Electrical Power Grid During Peak Demand Hours

California businesses and population are forecasted to grow in the future, despite the current recession. Thus, electrical power production must be increased to meet the demand attributable to this growth, as well as to power an ever-increasing array of lighting, appliances, electronic devices, heating and cooling systems, etc., which are considered essential components of our modern economy and our basic lifestyles. In general terms, the demand for electricity follows daily cycles, with peak energy demand occurring in the late afternoons, particularly during the summer months. This, coupled with forecasted growth in business and consumer demand for electricity, places even greater emphasis not only on the production of energy, but the time of the day at which electricity is produced. In terms of daily cycles, the Project’s daily wind resources peaks between 4:00 and 7:00 P.M.,

thereby delivering notable volumes of electricity during peak demand periods. In California, this late-afternoon peaking resource is rare and extremely valuable to utility providers. This, coupled with solar power generated during daylight hours, will provide utility customers with consistent and reliable energy production.

Implement the Project Under a Program of Proactive Environmental Stewardship

The Project is designed to achieve proposed Antelope Valley Area Plan Goal COS 13, which encourages utility-scale energy production facilities that reduce consumption of non-renewable resources, while minimizing impacts on natural resources and existing communities. Wind turbines and solar arrays have been sited to limit potential impacts on sensitive natural resources, as well as to avoid areas subject to potential environmental hazards (e.g., areas of known flood hazards). Biological investigations submitted by the applicant have determined that the Project Site does not provide nesting habitat for rare, threatened or endangered birds such as the California condor or eagles. Much of the site's landscape has been disturbed in the past by ranching and farming, and the Project concentrates energy farm development in those areas. Particular focus has been paid to sensitively siting Project development relative to land with documented and valued biotic resources. For example, Project development is highly respectful of the boundaries of the Fairmont and Antelope Buttes Significant Ecological Area (SEA No. 57) and on-site areas of particularly high wildflower resource potential. Two voluntary "Conservation" Areas are proposed to preserve the existing natural open space and provide buffers next to these adjacent resources. This includes a 265-acre Conservation area in the Northern energy Farm, encompassing Broad Canyon and the western edge of the Fairmont Butte in designated SEA 57. In addition, the Project's design provides open space for multiple 300-foot-wide wildlife corridors, as well as the use of fences which also allow for wildlife movement throughout the Project Site, linking important habitat areas located to the north and south of the Project Site.

Development within the Southern Energy Farm is limited to only wind turbines, subsurface infrastructure and the Project's substation. The wind turbines themselves are located to minimize ground disturbance and surface coverage. A 77-acre Conservation area is proposed in the northeastern corner of the Southern Energy Farm, adjacent to the Poppy Reserve, in an area known to have prolific wildflower blossoms. Development of wind energy alone in the Southern Energy Farm minimizes ground disturbance and maximizes open space, providing ample migration opportunities for terrestrial species crossing from the Portal Ridge SEA to the Fairmont Butte SEA and the Poppy Reserve. To support this, the Southern Energy Farm includes 1,000 acres of mitigation land dedicated to wildlife and habitat management where no development will occur.

Proposed on-site infrastructure improvements would consist of facilities limited in size to meet the Project's access, electricity collection, water, wastewater, and vehicular circulation needs. Freshwater sources in the Antelope Valley are considered to be scarce and wise use of this natural resource is a high priority in the community planning strategy. Annual water requirements for the Project would be lower than for other renewable energy technologies, such as concentrating solar power, which often require significant volumes of water in its basic energy-to-electricity conversion process. Outdoor lighting would be limited and controlled to preserve dark skies while providing for minimum levels needed for on-site security.

A significant feature of the Project is the creation of a 6.8-mile pedestrian/equestrian trail where there is currently no public access, which would provide public recreational access through the site, with views to scenic resources off-site, including the Fairmont and Antelope Buttes, as well as the Poppy Reserve, and the more distant mountains.

Create local economic investment and employment through Renewable Energy Development in the Western Portion of the Antelope Valley

California, like most states across America, is suffering from a persistent recessionary economy that has increased unemployment levels to historically high levels. This has acutely affected the construction trades with up to 25 percent unemployment rates in Southern California. The Project would create more than 330 construction jobs and approximately 15 to 20 permanent jobs for long-term operations and maintenance. The Applicant intends to obtain services, supplies and materials from local sources to the extent practical, which will benefit local businesses in the near term and over the long-term operating life of the Project. Development of a commercially viable, "state of the art" clean energy generation facility at this site would also contribute significant tax revenues to the County of Los Angeles and assist in establishing the Antelope Valley as a regional center of the emerging renewable power industry, thereby contributing to the realization of the State of California's near-term and long-term economic development goals. The Antelope Valley's trained and abundant workforce with experience in both wind and solar technology makes the project's location ideal from a construction and operations perspective.

Address Updated Antelope Valley Area Plan Land Use Policies Which Encourage Renewable Energy Development

A comprehensive planning program is underway to update community visions and the strategies for achieving those visions, throughout the Antelope Valley. Known as the "Town and Country Plan" (TCP), this program, under the umbrella of the Los Angeles County Department of Regional Planning's General Plan Update, defines goals and policies that are broadly applicable throughout the valley, and also tailored to specific

communities, such as Fairmont, where the Site is located. Preservation of the rural character found within the Antelope Valley is a primary goal, along with a recognition of the substantial solar and wind resources present in the central portion of the Antelope Valley. As such, the TCP anticipates and plans for the future development of renewable energy facilities in the Project area while providing a framework to discourage increased residential housing development. Specifically, the TCP encourages development of renewable energy where there are minimal environmental constraints and where connections to the power grid are readily available. Underground connections to transmission lines are strongly preferred. The Site is located within areas designated in the TCP as a Renewable Energy Priority Area. As such, the Project is on the leading edge of implementing these critically important TCP planning programs because it includes a high degree of sensitivity to the environmental conditions at the Site and conveys the electricity generated at the Energy Farm via an underground transmission line that connects to the existing power grid.

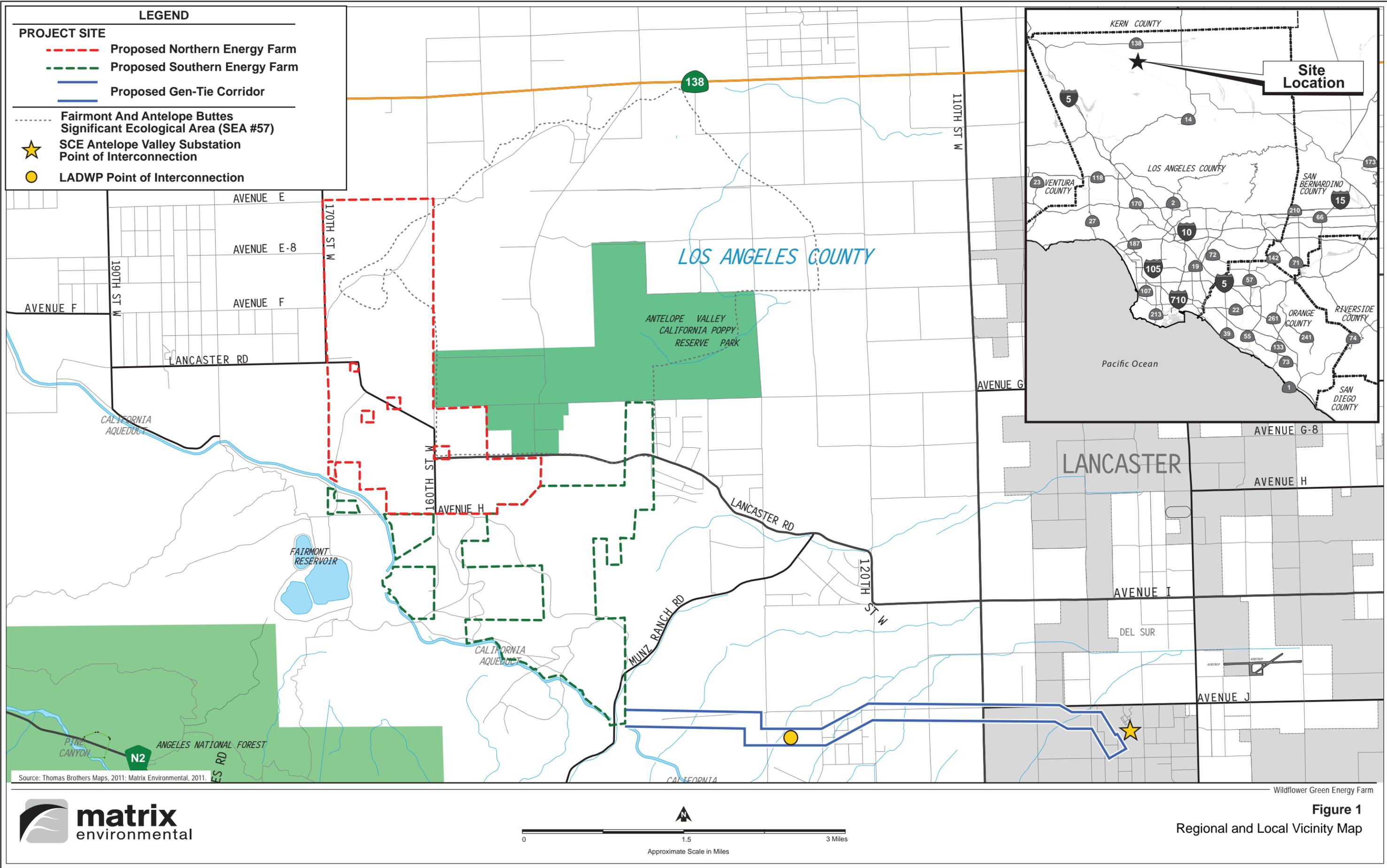
3. Project Location

The Project and Gen-Tie Line corridor are located within the Fairmont area of the unincorporated Antelope Valley in Los Angeles County, approximately 1 mile south of Avenue D (State Route 138) and approximately 3.3 miles west of the border of the City of Lancaster, California. Within a regional context, the Site is located near the northern boundary of Los Angeles County, approximately 20 miles east of Interstate 5 and 12 miles west of the Antelope Valley Freeway (State Route 14). The Site is also located immediately west and south of the Poppy Reserve, a state-operated park, and immediately northeast of the Fairmont Reservoir. Lancaster Road (not to be confused with State Highway 138) runs through the center line of the Site in a northwest/southeast direction. Other roadways within the area of the Site include 160th Street West, 170th Street West, Avenue H, and Myrick Canyon Road. The SCE and LADWP off-site transmission line options would occur within a 1/8 mile corridor, along the alignment of Avenue J, extending due east of the southeast corner of the Site. The Site's location within a regional and local context is shown in Figure 1 on page 9.

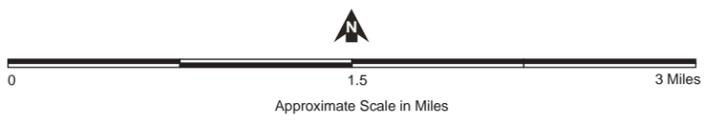
The Site is comprised of 68 parcels, covering 3,708 acres, as shown on Figure 2 on page 10. In addition, the Gen-Tie Line will be implemented via the granting of easements from property owners along the Gen-Tie Line corridor. Figure 3 on page 11 shows the Energy Farm as well as the alignment of the Gen-Tie Line corridor.

4. Overview of the Project Region

Geographically, the Site is located between the southern end of the Mojave Desert and the Tehachapi Mountain Range, within the Antelope Valley area of unincorporated Los Angeles County. The Antelope Valley extends to the north and is also located within the

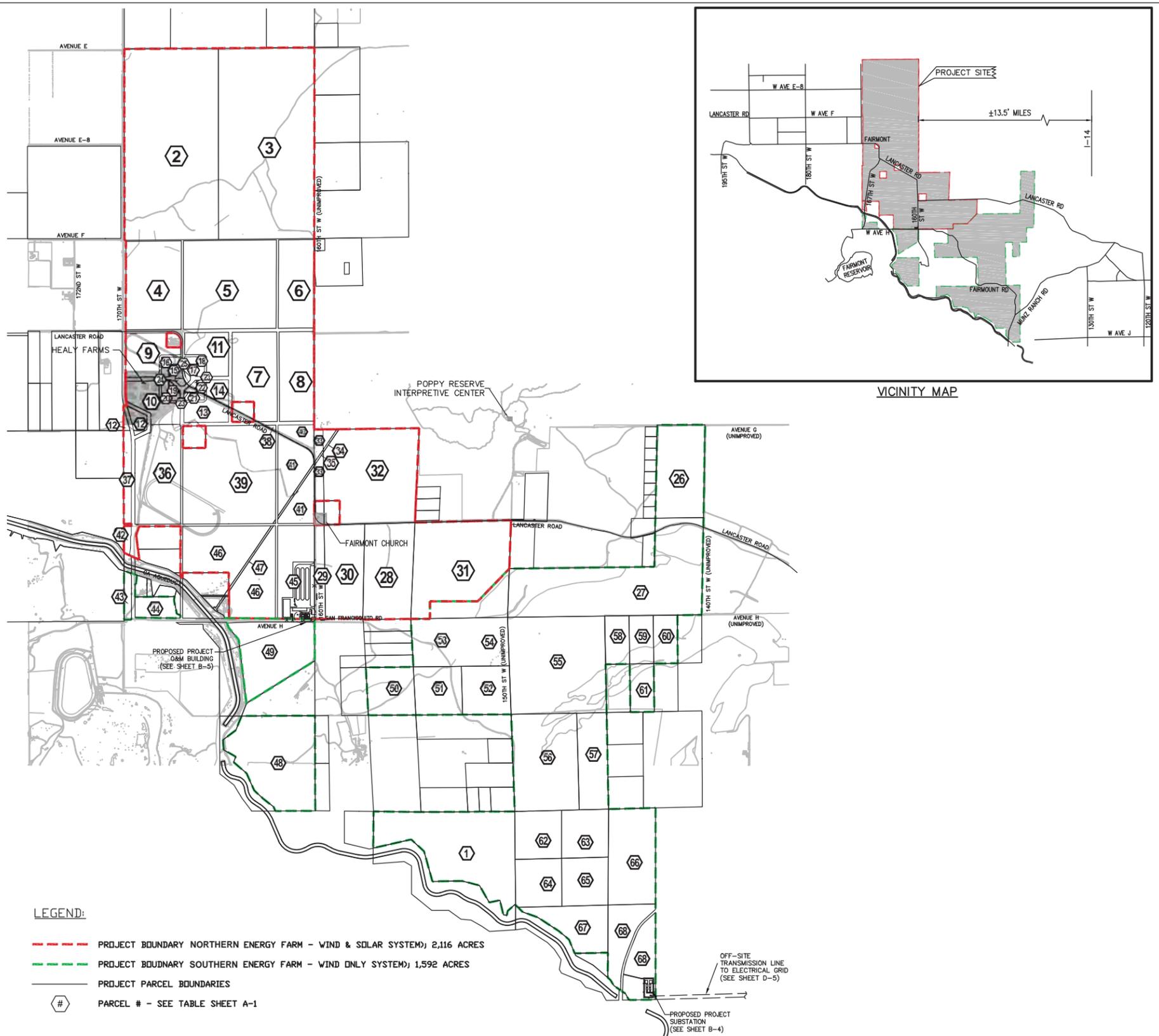


Source: Thomas Brothers Maps, 2011; Matrix Environmental, 2011.



Wildflower Green Energy Farm
Figure 1
Regional and Local Vicinity Map

ASSESSOR'S PARCEL NO.	PARCEL OWNER	APN LEGAL	APN ACREAGE
1	GENZ DEVELOPMENT INC	LOT COM AT NE COR OF SEC 18 T 7N R 14W T	152.74
2	WATT BUILDERS LLC	W 1/2 (EX OF ST) OF SEC 25 T 8N R 15W	317.56
3	HEALY ENTERPRISES INC	E 1/2 OF SEC 25 T 8N R 15W	323.49
4	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	86.31
5	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	144.91
6	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	55.78
7	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	63.53
8	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	55.10
9	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	30.71
10	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	26.26
11	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	25.60
12	HEALY ENTERPRISES INC	THAT PART (EX OF ST) OF SW 1/4 LYING S A	6.98
13	HEALY ENTERPRISES INC	LAND DES IN PAR 4 DOC 2850, 74-7-25 FAIR	16.05
14	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	6.34
15	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	1.44
16	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	4.04
17	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	1.46
18	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	4.17
19	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	1.43
20	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	3.98
21	HEALY ENTERPRISES INC	LAND DES IN PAR 3C DOC 2850, 74-7-5 FAIR	2.60
22	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	1.60
23	HEALY ENTERPRISES INC	LAND DES IN PAR 3C DOC 2850, 74-7-25 FAI	0.77
24	HEALY ENTERPRISES INC	LAND DES IN PAR 3B DOC 2850, 74-7-25 FAI	1.09
25	HEALY ENTERPRISES INC	FAIRMONT BEING A PART OF SW 1/4 OF SEC 3	1.89
26	HEALY ENTERPRISES INC	THAT PART OF LOT 1 IN SE 1/4 OF NE 1/4 A	78.67
27	HEALY ENTERPRISES INC	S 1/2 OF S 1/2 AND NE 1/4 OF SE 1/4 OF S	207.63
28	SALAZAR ENRIQUE & MACLOVIA	80 ACS LOT 1 IN SW 1/4 OF SEC 6 T 7N R 1	83.48
29	KAY SAUL H & RIMA S	THAT PART (EX OF ST) IN CONSOLIDATED FIR	17.15
30	KAY SAUL H & RIMA S	THAT PART (EX OF ST) OUTSIDE CONSOLI- DA	64.77
31	HEALY ENTERPRISES INC	SE 1/4 OF SEC 6 T 7N R 14W	164.61
32	HEALY ENTERPRISES INC	*E 1/2 OF LOTS 1 AND 2 AND E 1/2 OF W 1/	149.28
33	HEALY ENTERPRISES INC	*THAT POR IN CONSOLIDATED FIRE PRO DIST	11.06
34	ANTELOPE VALLEY EAST KERN WATER AGENCY	*LAND DESC IN DOC 0000259, 76-3-22 *THAT	0.84
35	ANTELOPE VALLEY EAST KERN WATER AGENCY	*LAND DESC IN DOC 0000259, 76-3-22 *THAT	0.51
36	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	77.29
37	HEALY ENTERPRISES INC	LOT (EX OF ST) COM AT NW COR OF SEC 1 T	13.23
38	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	0.81
39	HEALY ENTERPRISES INC	*TR-FAIRMONT SUB OF SEC 1 T 7N R 15W AND	151.47
40	HEALY ENTERPRISES INC	*TR-FAIRMONT SUB OF SEC 1 T 7N R 15W AND	11.69
41	HEALY ENTERPRISES INC	*TR-FAIRMONT SUB OF SEC 1 T 7N R 15W AND	49.45
42	HEALY ENTERPRISES INC	LOT COM AT W 1/4 COR OF SEC 1 T 7N R 15W	3.45
43	HEALY ENTERPRISES INC	LOT COM AT INTERSECTION OF W LINE OF SEC	6.21
44	HEALY ENTERPRISES INC	FAIRMONT, SUB OF SEC 1 T 7N R 15W AND SE	15.32
45	HEALY ENTERPRISES INC	FAIRMONT SUB OF SEC 1 T 7N R 15W AND SEC	60.81
46	HEALY ENTERPRISES INC	*TR-FAIRMONT SUB OF SEC 1 T 7N R 15W AND	111.93
47	ANTELOPE VALLEY EAST KERN WATER AGENCY	*TR-FAIRMONT SUB OF SEC 1 T 7N R 15W AND	2.46
48	LEONA VALLEY HUNTING CLUB	LOT COM AT SE COR OF SEC 12 T 7N R 15W T	120.46
49	HEALY ENTERPRISES INC	*LOT COM N ON E LINE OF SEC 12 T 7N R 15	81.00
50	BAYSHORE LLC	THAT PART IN S 1/2 OF LOT 1 IN NW 1/4 OF	40.24
51	BLUE RIBBON ENTERPRISES LLC	SW 1/4 OF NE 1/4 OF SEC 7 T 7N R 14W	40.36
52	TSE KING F	SE 1/4 OF NE 1/4 OF SEC 7 T 7N R 14W	41.28
53	BAYSHORE LLC	T07N R14W Sec. 7 NW NE	0.00
54	BAYSHORE LLC	T07N R14W Sec. 7 NE NE	0.00
55	HEALY ENTERPRISES INC	160 ACS NW 1/4 OF SEC 8 T 7N R 14W	164.61
56	MADAN S K & SHOBHANA	W 110 ACS OF SW 1/4 OF SEC 8 T 7N R 14W	111.40
57	SIMIELE ANTHONY J	E 50 ACS OF SW 1/4 OF SEC 8 T 7N R 14W	50.47
58	BAYSHORE LLC	P M 241-4-5 LOT 1	20.57
59	BAYSHORE LLC	P M 241-4-5 LOT 2	20.54
60	BAYSHORE LLC	P M 241-4-5 LOT 3	20.51
61	BAYSHORE LLC	P M 241-4-5 LOT 7	20.36
62	GENZ DEVELOPMENT INC	NW 1/4 OF NW 1/4 OF SEC 17 T 7N R 14W	39.58
63	GENZ DEVELOPMENT INC	NE 1/4 OF NW 1/4 OF SEC 17 T 7N R 14W	39.60
64	GENZ DEVELOPMENT INC	LOT COM AT NW COR OF SW 1/4 OF NW 1/4 OF	39.26
65	GENZ DEVELOPMENT INC	40 ACS SE 1/4 OF NW 1/4 OF SEC 17 T 7N R	39.31
66	GENZ DEVELOPMENT INC	W 1/2 OF NE 1/4 OF SEC 17 T 7N R 14W	79.95
67	GENZ DEVELOPMENT INC	LOT COM AT CENTER OF SEC 17 T 7N R 14W T	46.06
68	GENZ DEVELOPMENT INC	LOT (EX OF ST) COM AT CENTER OF SEC 17 T	72.54
			3708.05

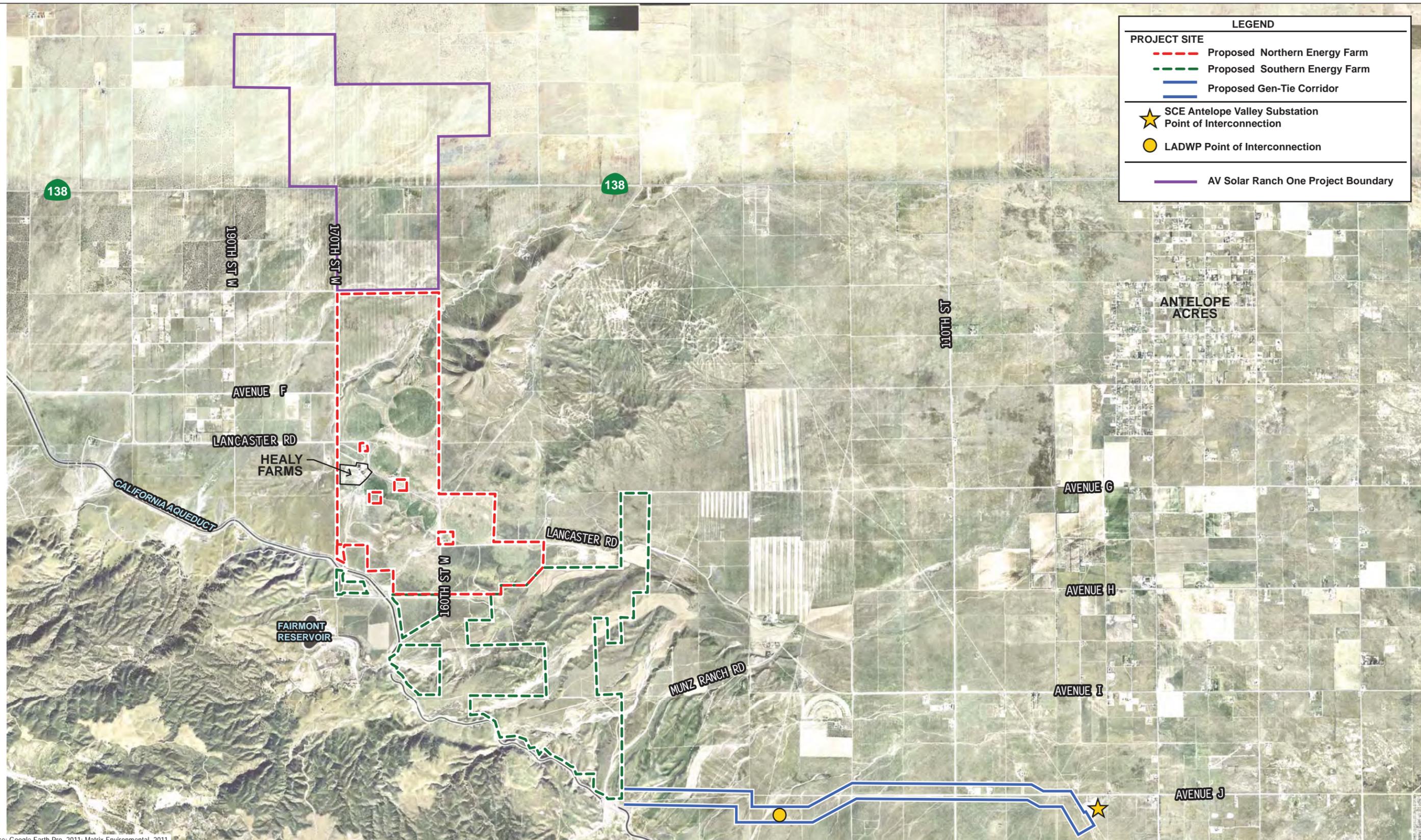


Source: Fuscoe Engineering, September 2011.

Wildflower Green Energy Farm



Figure 2
Assessor's Parcels Within Proposed Energy Farm



LEGEND	
PROJECT SITE	
---	Proposed Northern Energy Farm
---	Proposed Southern Energy Farm
---	Proposed Gen-Tie Corridor
★	SCE Antelope Valley Substation Point of Interconnection
●	LADWP Point of Interconnection
---	AV Solar Ranch One Project Boundary

Source: Google Earth Pro, 2011; Matrix Environmental, 2011.

Wildflower Green Energy Farm

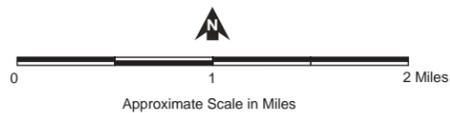


Figure 3
Aerial Photograph

geographic limits of Kern County. As such, the Antelope Valley consists of desert terrain bounded by the San Gabriel Mountains to the south, portions of Kern County to the north, Ventura County to the west, and San Bernardino County to the east. The Antelope Valley is characterized by relatively flat land, punctuated by occasional buttes. In general, the Antelope Valley floor is bowl-like, with the low point located near the center of the playas or dry lakes, and consists primarily of alluvium soils. Generally, the area alluvium is composed of unconsolidated to moderately consolidated, poorly sorted cobbles, gravel, sand, silt, and clay. Peak elevations within the Antelope Valley range from 2,300 to 3,500 feet above mean sea level.

The Antelope Valley is located in a very arid part of California and as such usually receives less than 10 inches of precipitation per year, mostly in the form of rainfall; infrequent snowfall events are also known to occur within the Antelope Valley. Temperatures within the Antelope Valley range from below freezing in the winter to over 100 degrees Fahrenheit in the summer. Winter temperatures are typically above freezing.

The Site vicinity, as shown in the aerial photograph provided in Figure 3 on page 11, includes a variety of land uses, although a majority of the surrounding lands are unoccupied agricultural and grazing lands. The nearest residential communities are Antelope Acres, located approximately 5.2 miles to the east/northeast, Fairmont, located 1 mile west, and Neenach, located approximately 8.7 miles to the northwest, along the north side of State Highway 138. To the northeast of the Site are the Poppy Reserve, the Antelope and Fairmont Buttes, with the majority of residential development located further to the east. To the south of the Site are the Angeles National Forest and lands administered by the Bureau of Land Management (BLM). The LADWP operates the Fairmont Reservoir, a water retention facility, located southwest of the Site. This reservoir collects water from the Eastern Sierra Mountains via the Los Angeles Aqueduct before the water enters an intake below the reservoir for the Elizabeth Lake Tunnel. West of the Site is primarily undeveloped land, with several residences scattered across large lots between 180th and 190th Streets. Scattered residences are visible from the western border of the Site; however, most residences are not visible from the Site due to distance and topography. Existing land uses (including residences adjacent and within the Project Site) are described further in the following section.

5. Project Site Background and Existing Uses

a. Land Uses On-Site and Adjacent Areas

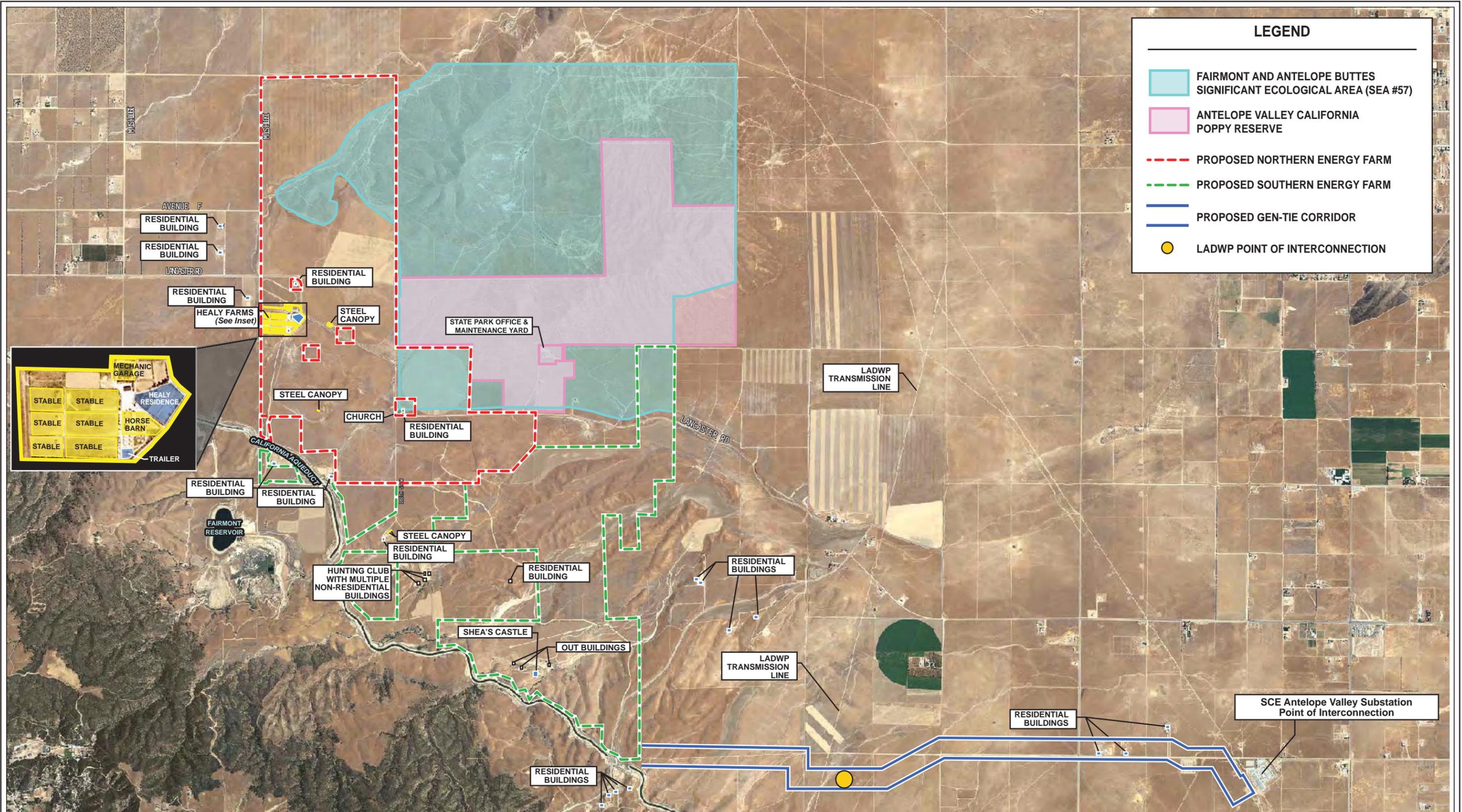
The Site is primarily composed of mixed grasslands and has been used since the 1950s for heavy grazing, ranching, and farming. Specifically, within the 3,708-acre Site, approximately 1,200 acres concentrated in the northern portion of the area have been

utilized for ranching activities such as growing alfalfa hay as well as horse-breeding and training. Fallow alfalfa fields, cattle grazing, dry washes, scrubland, two residential sites and a hunting club occur in the southern portion of the Site. Vegetation on the Site mainly consists of alfalfa grasses (planted as a crop), desert grass and sagebrush scrub.

For a number of years, the primary use of the Site has been as a horse ranch and training facility, which previously boarded as many as 200 horses on 2,200 acres of ranch facilities. The ranch, known as Healy Farms, is located along 170th Street and Lancaster Road, and comprises a majority of the Northern Energy Farm area. Ranching activities have diminished and are currently limited to boarding several horses. As shown in Figure 4 on page 14, Healy Farms consists of: (1) one single-family home, two trailers, and a single-family residence; (2) horse stables and associated grazing areas, which are assumed to have been previously graded; (3) a horse barn with an apartment; (4) a shop to provide limited maintenance for farm equipment, as well as the storage of equipment and materials for construction, operation, and maintenance; (5) two diesel and gasoline aboveground fuel tanks (ASTs) to fuel farming vehicles and equipment; and (6) fields use for hay production. One underground storage tank (UST), located in the ranch area that formally contained fuel is considered to be a recognized environmental condition. In June 2010, the Applicant removed an unauthorized dump site from a low area to the south of the farms, to eliminate a potential source of environmental contamination. This dump contained various solid and liquid waste materials from local land uses.

Large fields are located throughout the site to grow hay (mainly alfalfa) and are assumed to have been previously graded. A well-developed pivot irrigation system provides water to the crop fields. The availability of this water for the crops is a unique feature for the area, given the limited water resources found in this portion of the Antelope Valley. The horse grazing areas are fenced and include water systems and feeding areas. The horse barn includes several stalls and an apartment. The existing homes at Healy Farms obtain energy from natural gas stored in aboveground storage tanks and low-voltage electrical distribution lines. Sanitary wastewater from the on-site residences drains to an on-site septic system.

Alfalfa production and cattle grazing occur on hundreds of acres in the southern part of the Site, along with three clusters of buildings, a number of dry washes, and scrub-covered natural landscape. Located near the southwestern portion of the Site and along the California Aqueduct, is the Leona Valley Hunting Club (also known as the Antelope Valle Sportsman's Club). For more than 30 years, this site has hosted activities such as bird hunting, cow grazing, dog training, and growing hay. There are some corrals, round pens, and livestock chutes here, as well. To the north of the hunting club is a house, barn, brick storage building, several sheds, and horse corrals. To the southeast of the hunting club is land containing Shea's Castle, a 7,000-square-foot replica of an Irish castle built in



Source: Google Earth Pro, 2011; Matrix Environmental, 2011.

Wildflower Green Energy Farm

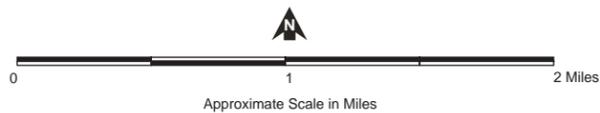


Figure 4
Existing Land Uses

1924, in a complex that includes a partially ruined 2,000-square-foot stable, several outbuildings, and a house. There are currently more than 80 cattle grazing on the 512-acre castle site. There is also a 3,000-foot dirt runway for small planes (no longer usable) and a dirt track for all-terrain vehicle racing. This site includes an artesian well and an approximately 50,000-gallon AST, along with electrical infrastructure.

Land uses surrounding the Site consist of light agricultural land, low density single-family residences, a church, undeveloped grazing lands, open space areas, and the Poppy Reserve. The California Aqueduct lies along the southwestern boundary of the Site. Two residences are located near the Site boundary, adjacent to the California Aqueduct. Other residences located near the Southern Energy Farm include one residence within a complex maintained by the hunting and two homes located north and east of the Hunt Club, as shown on Figure 4 on page 14. One residence is located due west of the Healy Farm facilities, off-site. Immediately north of the Site (see Figure 3 on page 11) is the approximately 2,100-acre site of the AV Solar Ranch One project, a 230-MW solar photovoltaic electric power generation facility that has been approved by the County of Los Angeles. One church, the Church at Fairmont, is located adjacent to the Project Site on Lancaster Road and 160th Street W. The Antelope Valley Poppy Reserve lands are located north and east of the Energy Farm. The California Aqueduct, which is part of the State Water Project and delivers water via a concrete canal from the Owens River in the Eastern Sierra Nevada Mountains of Northern California to the City of Los Angeles, runs along the southern edge of the Site.

Land uses within and surrounding the Gen-Tie Line corridor consist of undeveloped grazing land, Avenue J, a two-lane road, crossing by two high-voltage transmission line corridors, and three single-family residences just west of the SCE Substation.

b. Topography and Soils

The topography within the Energy Farm varies with the lowest elevation approximately 2,700 feet above mean sea level (msl) located near Broad Canyon in the northern portion of the Energy Farm and the highest elevation approximately 2,900 feet above msl located near the California Aqueduct in the southwestern portion of the Energy Farm. The Northern Energy Farm consists of moderately sloping plateaus from north to south, an extension of the Fairmont Butte, a dry wash area and extensive areas of relatively flat land. The Southern Energy Farm consists of moderately sloping plateaus with limited canyons.

As is the case regionally, the soils and surface sediments at the Energy Farm largely consist of coarse sandy loam, sand and gravel. The presence of the loam provides some rainfall retention, thus allowing farming to occur. The presence of sand and gravel results

in infiltration for rainfall and surface water. Bedrock, extending from the Tehachapi Mountain Range, exists at the Project Site at various depths ranging from the surface to well over 50 feet below ground surface. It is unknown whether perched groundwater exists within the agricultural portions of the Energy Farm, but test drilling during the investigation of the former dump site encountered no groundwater to a depth of 100 feet. High-quality potable groundwater is known to occur 1,000 feet below ground surface.

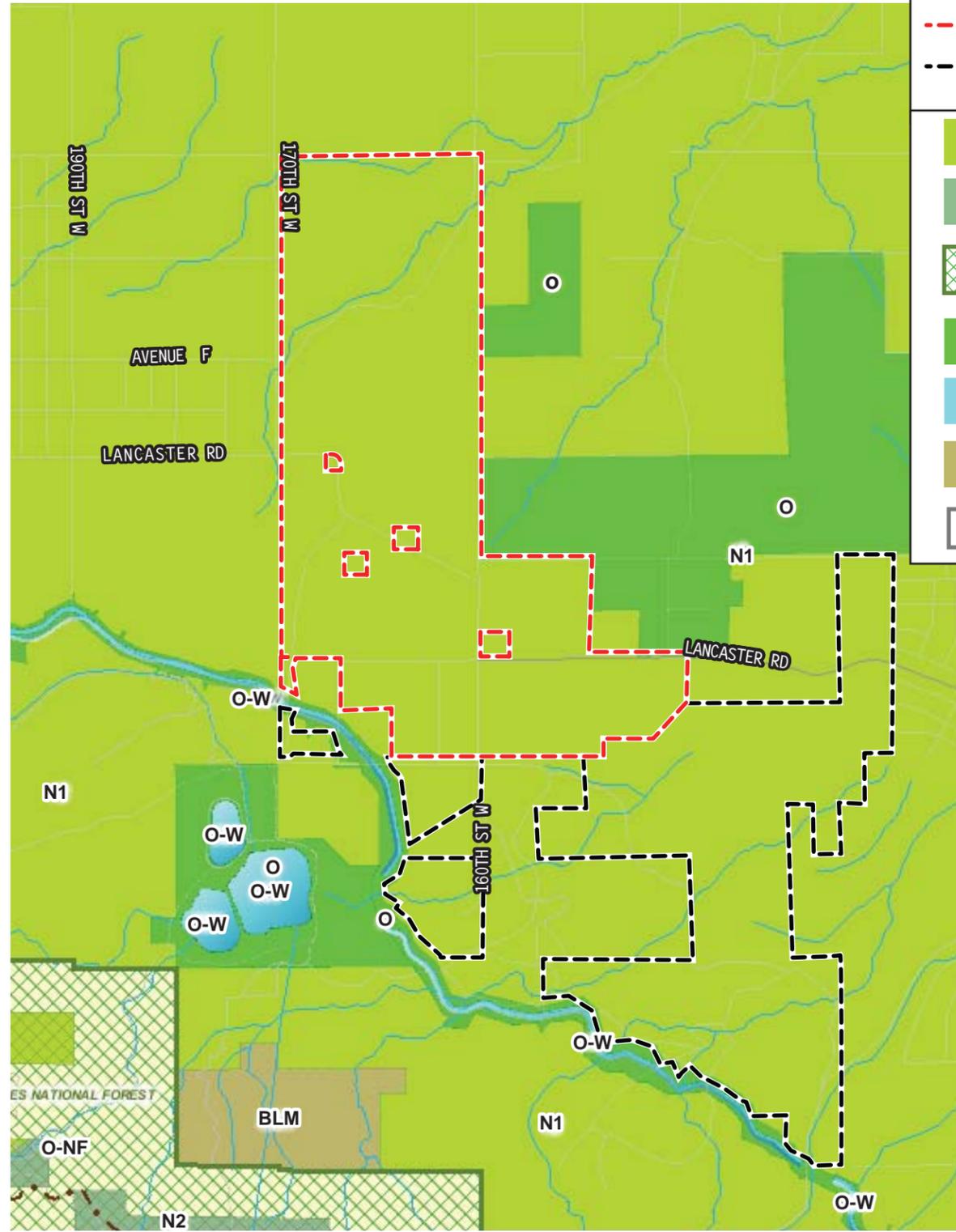
c. Access

Primary access to the Site is currently provided via Lancaster Road from the east and west and 170th Street W from the north and south. Munz Ranch Road provides vehicular access between the southeastern corner of the site and Lancaster Road. Other unpaved roads within the Project Site provide internal circulation to the various portions of the property. An easement across the Project Site is held by the state Department of Water Resources to access the land adjacent to the California Aqueduct that traverses the southern portion of the Energy Farm in a northwest-southeast direction. An Antelope Valley East Kern Water Company easement traverses the south half of the Northern Energy Farm, in a northeast-southwest direction.

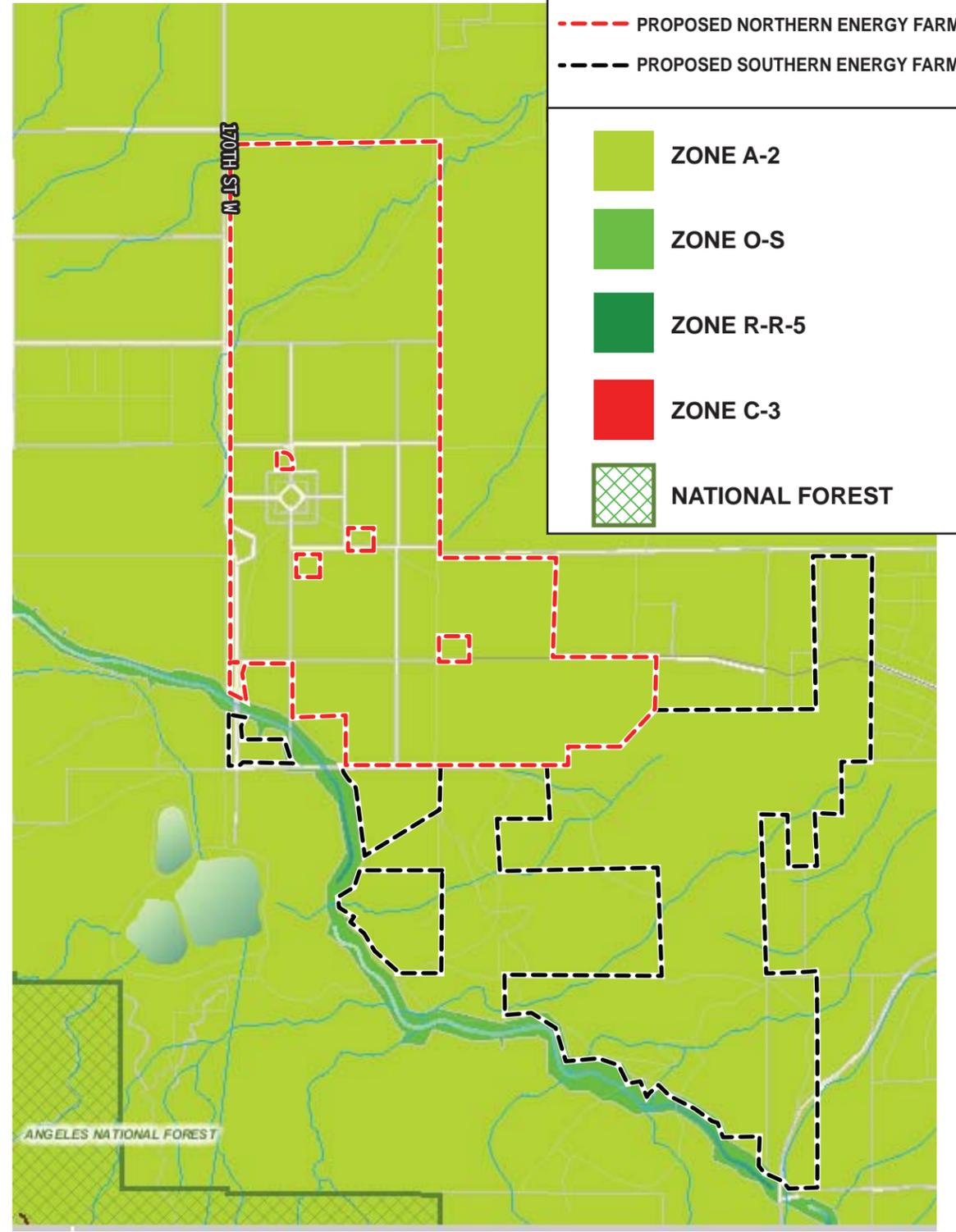
d. General Plan and Zoning Designations

The majority of the Energy Farm and Gen-Tie Line corridor, as shown in Figure 5 on page 17, is designated in the Los Angeles County General Plan as N1-Non-Urban (0.5 du/ac) and is zoned A-2-5 (Heavy Agriculture), a designation and zoning that allows for renewable energy projects as conditionally permitted uses. Approximately 476 acres within the northern, central, and eastern portions of the Energy Farm are located within the Fairmont Buttes Significant Ecological Area (SEA No. 57).

The County of Los Angeles is currently in the process of updating the Antelope Valley Areawide Plan or “Town and Country Plan” once adopted by the County’s Board of Supervisors. According to the June 1, 2010, Preliminary Draft Land Use Map, the Energy Farm will be designated with the Rural Land (RL) 10, 20, and 40 designations, which corresponds to residential densities ranging from 1 dwelling unit per 10 acres to 1 dwelling unit per 40 acres. Within Los Angeles County, the Gen-Tie Line corridor will be located on lands designated RL 10 and RL 20. The RL 10 designation will provide a maximum density of 1 dwelling unit/10 acres and a maximum floor area ratio of 0.5. The majority of the approximately 1.5 section of the Gen-Tie Line corridor located within the City of Lancaster, is designated in the Lancaster General Plan as NU (Non-Urban Residential, 0.4–2.0 dwelling units/acre) and is zoned RR-2.5 (Rural Residential, 1 dwelling unit/2.5 acres). A small amount of land along the Gen-Tie Line corridor is designated in the City’s



GENERAL PLAN DESIGNATIONS	
	PROPOSED NORTHERN ENERGY FARM
	PROPOSED SOUTHERN ENERGY FARM
	N1 - Non-Urban 1 (0.2 du/ac)
	N2 - Non-Urban 2 (0.3 du/ac)
	O-NF - National Forest
	O - Open Space
	O-W - Water Body
	BLM - Bureau of Land Management
	Incorporated Area



ZONING CLASSIFICATIONS	
	PROPOSED NORTHERN ENERGY FARM
	PROPOSED SOUTHERN ENERGY FARM
	ZONE A-2
	ZONE O-S
	ZONE R-R-5
	ZONE C-3
	NATIONAL FOREST

Source: Los Angeles County Department of Regional Planning, GIS-NET 2011.

Wildflower Green Energy Farm



Figure 5
Energy Farm General Plan and Zoning Designations

General Plan as UR Urban Residential (2.1-6.5 dwelling units/acre) with a Specific Plan overlay.

6. Proposed Project

The Project entails development and long-term operation of a modern, state-of-the-art renewable energy generation facility. The Project would collect and transfer the energy generated from on-site renewable wind and solar energy sources to the existing regional electrical transmission grid via an underground transmission line, referred to hereafter as the “Gen-Tie Line.”

a. Energy Farm

The Energy Farm would be developed with the latest technologies for wind turbines and/or solar photovoltaic (PV) cells to generate the maximum and most efficient amount of electricity at the lowest overall cost, while minimizing impacts to the environment. The Project would generate up to 300 MW of electricity annually, based on the energy capture efficiency factors noted in Table 1 on page 19. The two basic technologies (i.e., wind and solar) to be implemented as part of the Project are described briefly below.

(1) Overview of Energy Farm Technologies

(a) Wind Turbine Generating System

Wind turbines convert the kinetic energy in wind to electrical energy. Electricity is produced as the wind turns the blades. In current technology the blades typically turn a shaft inside a gearbox located within the cover housing (nacelle). The gearbox increases the revolutions per minute and turns an electrical generator also within the nacelle. Newer technologies are incorporating direct drives without a gearbox, and the ultimate turbine selected may be of this type. The power produced by the generator is transmitted to a transformer either in the nacelle itself or at the base of the turbine, which converts the electricity coming out of the generator to an alternating current voltage at 34.5 kV for collection by a buried conduit that provides an underground connection for the strings of turbines within the Energy Farm. This 34.5-kV “collection system” brings the energy generated at each turbine to the on-site substation (Project substation) which increases the voltage to a level suitable for transmission and conveyance to the regional grid system, and ultimately delivered to utility customers.

Figure 6 on page 20 provides a diagram of the components of a wind turbine. The wind turbines that would be installed at the Energy Farm would have a rotor composed of fiberglass blades attached to a nacelle by the turbine’s hub and supported by a steel tower.

Table 1
Annual Energy Output of Energy Farm

Renewable Energy Technology	Net Capacity Factor^a	Number of Hours per Year	Annual Energy by Technology (MWh)^b	Approximate Number of Households Served^c
Wind	0.44	8,760	385,440	
Solar	0.348	8,760	304,848	
Total			689,580	114,930

MWh = Megawatt hours
Values are approximate.

^a *Net Capacity Factor (NCF) is the ratio of produced capacity to rated capacity. This can vary, depending on the specific type of wind turbine or solar panel selected.*

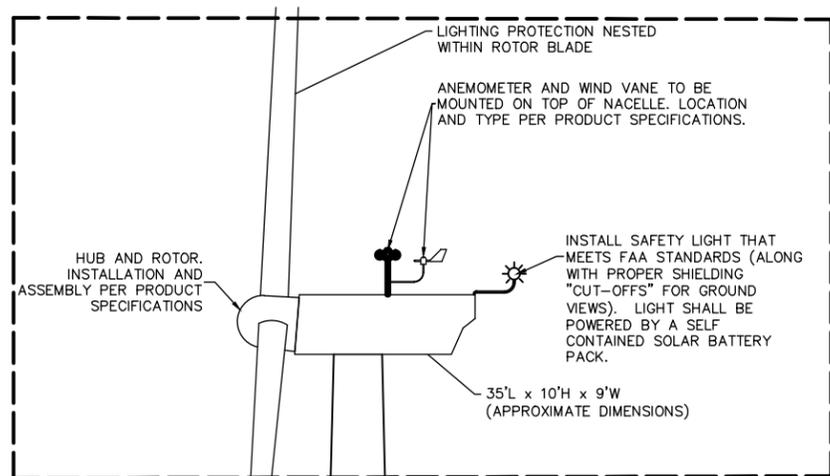
^b *Wind MWh = 0.44 Wind NCF x 8,760 hrs/year x 100*
Solar MWh = 0.348 Solar NCF x 8,760 hrs/year x 100

^c *Assumes average of 6 Megawatt Hours per Household per year per CPUC Report*

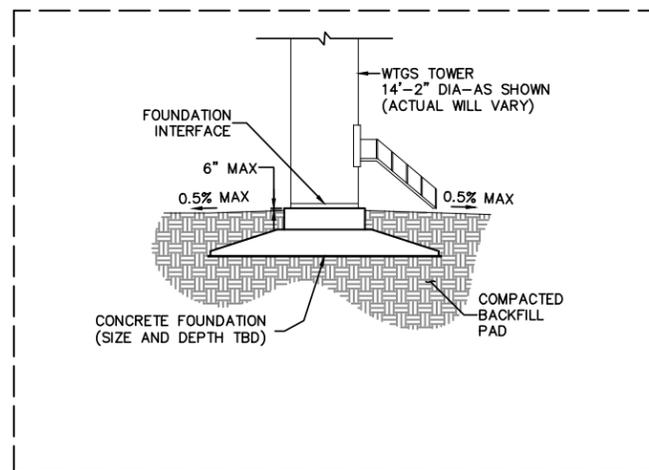
Source: Element Power; California Public Utilities Commission, California Long Term Energy Efficiency Strategic Plan, September 2008.

Turbines would be painted a non-reflective white. Each turbine would rest on a “pad” that extends into the ground to a steel-rebar-reinforced concrete foundation. In addition, lighting required and approved by the Federal Aviation Administration (the “FAA”) would be located at specific locations along each string of turbines. This lighting typically consists of a single red flashing element. As part of the Project’s pre-development phase, the Applicant will discuss alternate means of achieving the FAA’s safety requirements in hopes of achieving minimal light disturbance.

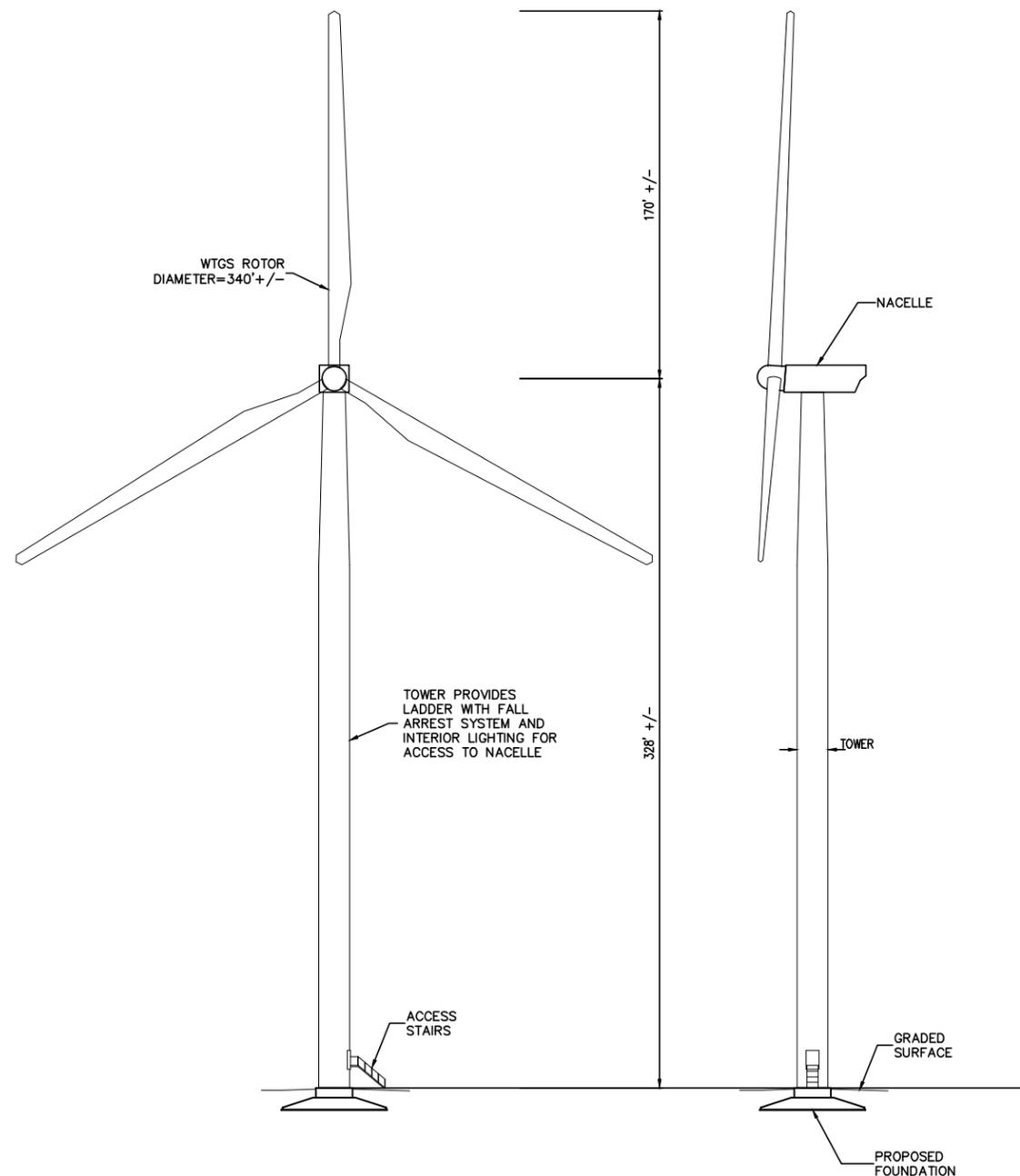
Turbine selection and siting will be conducted in accordance with standard industry practices for maximizing energy capture and minimizing impacts. The ultimate placement of turbines is heavily dependent on two interrelated variables: (1) the wind resource on the site; and (2) the height, rotor diameter, and specification of the machines. The distribution and intensity of wind resources at the Project Site would be determined through monitoring on-site meteorological conditions via meteorological towers previously approved by the County. The turbines themselves (and thus the final layout) are selected in the final months before construction of the wind farm is to commence. Vendor selection will be based on technology efficiency, pricing and performance, purchasing requirements, and construction requirements. Storing wind turbines on-site prior to construction is generally infeasible for both the manufacturer and the Applicant. Regardless of the final configuration, a large portion of the wind turbines would be located on the northern portion



NACELLE EQUIPMENT DETAIL
SCALE: 1" = 20'



TYPICAL FOUNDATION DETAIL
SCALE: 1" = 20'



EXAMPLE 2.3-3.4 MW WIND TURBINE TYPE (SHOWN 3.0 MW)
SCALE: 1" = 40'

NOTES:

1. PRIVATE VEHICLE ACCESS ROADS ARE TO BE INSTALLED FOR DELIVERY, CONSTRUCTION AND ASSEMBLY OF WIND TURBINE GENERATOR SYSTEM (WTGS).
2. TOWER SECTION INTERFACE SHALL BE BOLTED TO FOUNDATION AND WTGS. ALL MATERIALS AND CONSTRUCTION MATERIALS SHALL BE AS NOTED ON WTGS MANUFACTURES SPECIFICATIONS.
3. BACKFILLED GRADED PAD SHALL HAVE A SURFACE SLOPE NO GREATER THAN 0.5%.
4. PERMANENT PAD WILL CONSIST OF 30' DIAMETER YARD AREA COVERED WITH STONE AGGREGATE ALL WEATHER SURFACE.

of the Energy Farm site. Furthermore, the turbines would be located so as to most efficiently take advantage of the wind resource in the area. Locating turbines too close together in-line with the wind causes “wake effects” (turbulence), which reduces the efficiency of the leeward turbine (the downwind turbine), as the windward turbine (the upwind turbine) absorbs more of the wind’s energy. Placing turbines too close to perpendicular to the wind direction (also known as crosswind spacing) also causes turbulence (or “wake”), which reduces efficiency and may cause shaking in the blades which poses a risk of damaging the turbine and reducing its useful life.

Thus, the final layout of the wind turbines is driven by factors, including the micro-scale differentiations in the on-site wind resource, constructible topography, minimizing impacts to sensitive resources, and efficient electrical engineering (determining the length to minimize the electrical losses of the turbine string’s 34.5-kV collection system). In order to develop an efficient turbine configuration (i.e., to capture the Project Site’s maximum wind energy potential) and to provide efficient access, via roads, to turbines in the final layout, turbines would be spaced no closer than 1 Rotor-Diameter apart in strings connected to 34.5-kV low-voltage wire conduit (a “collection system”). These wind turbine strings would be accessed by roads running the length of each string. The collection system would be buried alongside the access roads whenever possible and would connect the wind turbines to the proposed substation.

The proposed wind turbine generating system would include one or more permanent meteorological tower(s). This tower would extend to the hub-height of the wind turbines selected and be composed of a 1- or 2-foot triangular steel lattice with multiple 10-foot booms, small-gauge booms on which the anemometers (wind-speed testing devices) would be mounted, and weather vanes, as well as temperature and rain gauges. The towers would have no guy wires in order to reduce impacts to birds or bats. A 1-foot x 1-foot x 2-foot box at the base of the meteorological station would communicate via a cellular or hard wire network to log all of the data collected.

(b) Photovoltaic (PV) Solar Modules

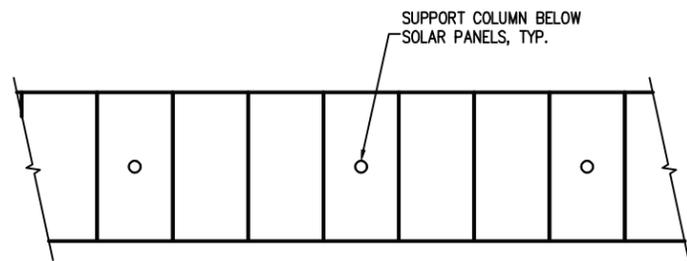
PV cells convert sunlight directly into electricity via absorption by a treated silicon semiconductor (in the case of crystalline silicon PV) or by the energization of several layers of photovoltaic substrate deposited on glass or flexible polymer (in the case of thin-film PV). When sunlight strikes a photovoltaic cell, it may be reflected, passed through, or absorbed. When enough sunlight is absorbed by the photovoltaic substrate or semiconductor, the sunlight’s photons knock electrons loose, allowing them to flow freely. When many electrons, each carrying a negative charge, travel toward the front surface of the PV cell, the resulting imbalance of charge between the cell’s front and back surfaces creates a voltage potential similar to that between the negative and positive terminals of a battery.

The flow of electrons between high and low potentials creates an electrical current. When the two surfaces of differing potential are connected, electricity flows between them and current can be drawn for external use. This current, together with the cell's voltage, defines the power (or wattage) that the solar cell produces. To increase power output, cells are electrically connected into solar modules which are packaged together within a weather-tight panel.

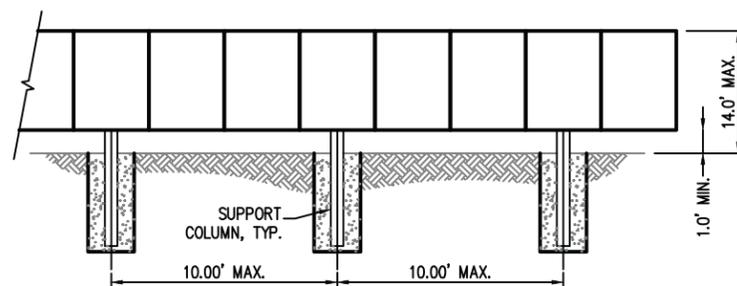
For the purposes of this project description, an "array" may refer to single or multiple solar modules, with the number of modules connected together in a given array determined by the amount of power output needed or space available. As with wind turbines, solar modules are purchased immediately prior to construction and will vary with technology chosen. Array foundations would consist of poles/H-beams that reach a depth of 15 feet or less below surface. Depending on the racking and tracking technology utilized, the PV modules are mounted facing south and tilted at approximately 15 degrees from horizontal. This is typical of a fixed-tilt configuration. The highest point on these units (i.e., the uppermost solar panel) reaches a height of 8 to 15 feet above the ground surface. Any tracker units will be arranged in an orientation to allow them the capability to follow the path of the sun and, thus, maximize electrical output, with rows typically aligned North/South and panels tracking from East to West through the day. Light-duty gravel roads approximately 20 feet wide will be constructed to allow for the maintenance and cleaning of the modules. Figure 7 on page 23 illustrates the proposed typical solar array layout.

The Project's photovoltaic solar modules will either be configured in a fixed-tilt format or mounted to rotating posts known as "trackers" (see Figure 7). The modules would be mounted via brackets to a racking system or mounted to the tracking components and then mounted to a racking system. The proposed design is to arrange a combination of PV module, fixed-tilt racking units, tracking units, inverters, and transformers into 1- to 3-MW blocks which would achieve the total capacity of the Project facility. The solar blocks would also include associated site components, such as infiltration basins, fencing, and fire breaks. Power from the solar arrays would be generated in the form of direct current (DC). DC current from each module is collected by wires buried 18 to 24 inches deep, and conveyed underground, to an inverter. Each inverter would be approximately 10 feet tall by 10 feet long by 4 feet wide and would sit on a concrete pad in the center of each solar array block. At the inverter, the DC is converted to alternating current (AC) power and stepped up in voltage to 34.5 kV for conveyance through underground collector lines to the Project substation. At the substation, the electricity is stepped up to 230 kV (AC) and transmitted via the Gen-Tie Line to the point of interconnection.

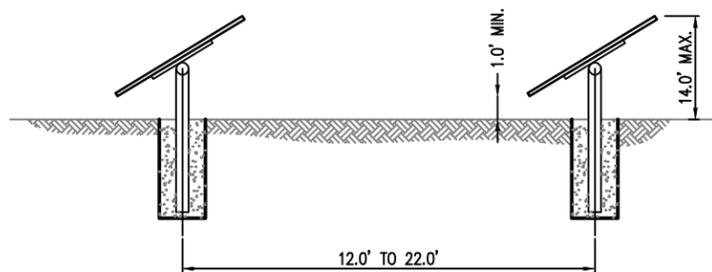
Ancillary facilities required to support the solar arrays include inverters and transformers, as well as other electrical equipment which are located on 1-foot-deep concrete pads. Each pad would be approximately 5 to 15 feet wide, 10 to 60 feet long, and



TOP VIEW
SCALE: NOT TO SCALE

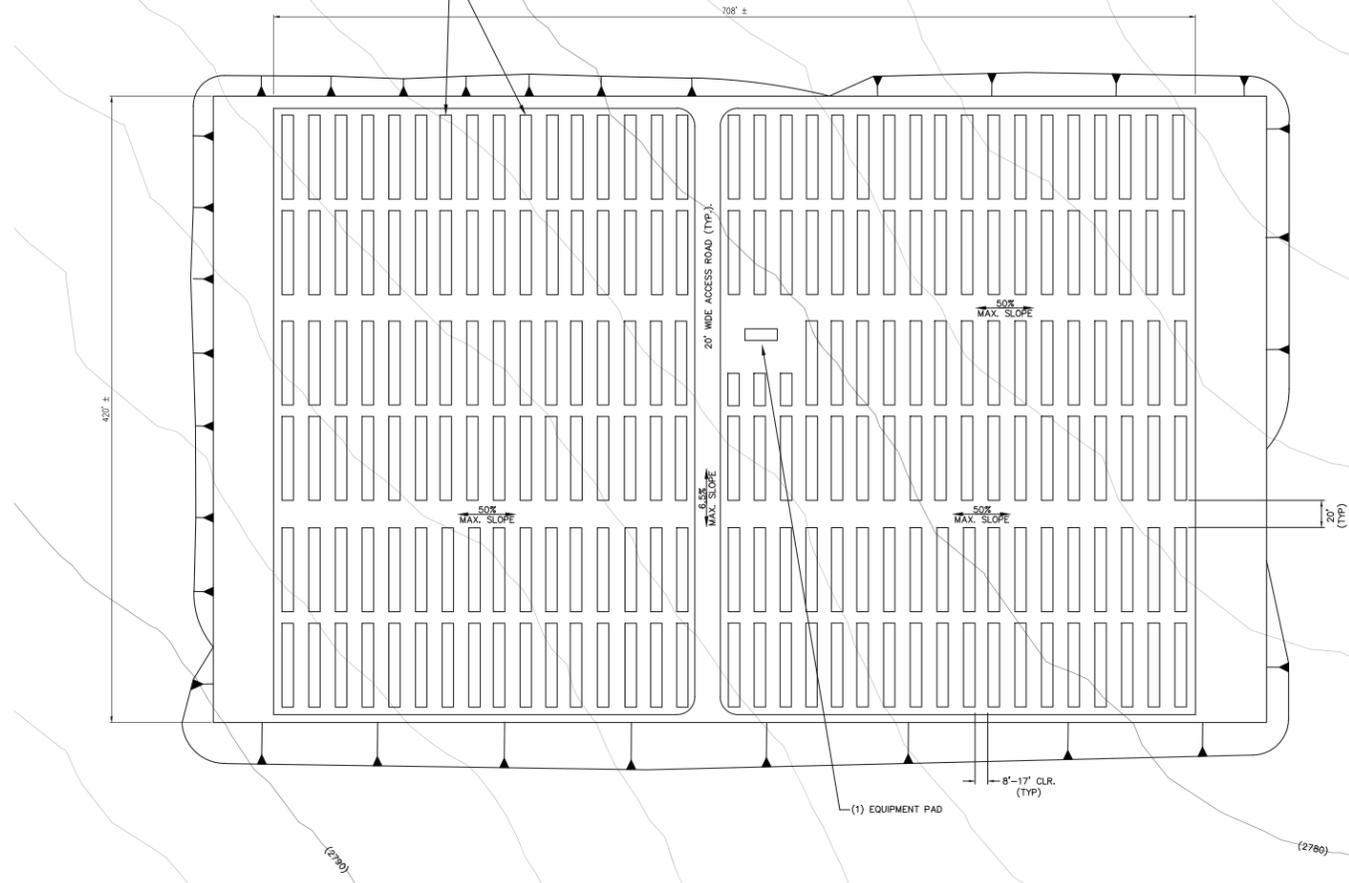


FRONT VIEW ELEVATION
SCALE: NOT TO SCALE

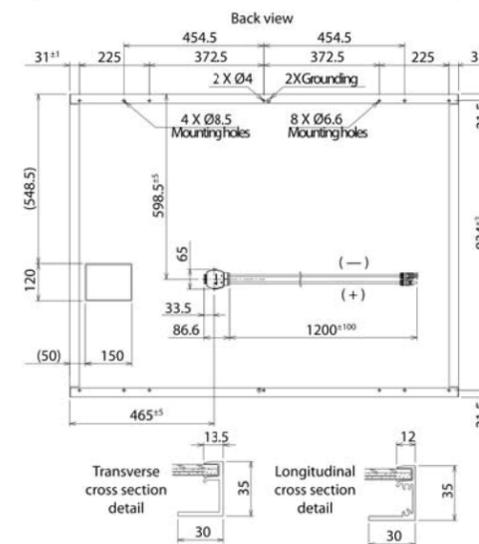
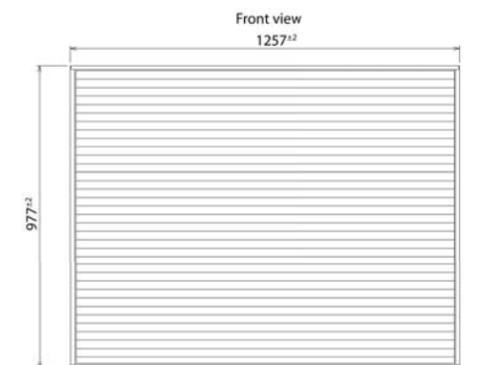


SINGLE AXIS TRACKING
SCALE: NOT TO SCALE

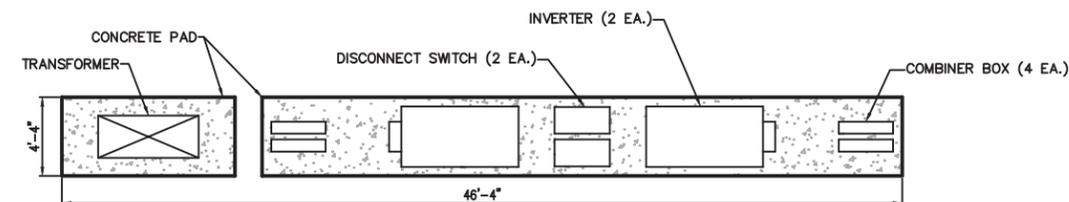
SOLAR MODULES TO BE INSTALLED AND ASSEMBLED PER RECOMMENDATIONS ON MANUFACTURERS SPECIFICATIONS.



TYPICAL SOLAR ARRAY LAYOUT
SCALE: N.T.S.



SOLAR FRONTIER SF-150L
(ACTUAL MODEL MAY VARY)
SCALE: NOT TO SCALE



INVERTER/ TRANSFORMER PAD-TYPICAL

support 1 to 3 inverters and 1 transformer. Transformers would contain approximately 400 gallons of Dielectric oil (for insulation and heat transfer), which is comprised of non-toxic mineral oil. The electrical equipment would be contained in metal or concrete enclosures, designed specifically for outdoor installation with catchment basins to absorb any possible leak and prevent overflow to the ground. All electrical equipment would be located on concrete foundations which are at least 1 foot above the 100-year flood plain elevation to reduce risk of equipment damage due to flooding.

(2) Proposed Development Plan

The Project is the development of a renewable energy facility that can generate up to 300 MW of electricity. As summarized in Table 2 on page 25 and illustrated on Figure 8 on page 26, the Project's conceptual plan consists of a maximum of 50 wind turbines, up to 150 1-MW+ solar arrays, an O&M building (which is supported by a surface parking lot, a temporary lay down yard, etc.), and an electrical substation. Based on a careful review of site conditions, and with a focus on limiting the Project's potential environmental impacts, the Applicant has divided the Project into a 2,116-acre Northern Energy Farm and a 1,592-acre Southern Energy Farm, as shown on Figure 8, on page 26. This design concentrates all of the solar arrays, along with two-thirds of the wind turbines, into the Northern Energy Farm, and the remaining one-third of the wind turbines in the Southern Energy Farm. This concept follows the natural topography, limits total grading, and provides additional open space for wildlife migration between the Liebre Mountain/Portal Ridge SEA No. 58 to the south and the Poppy Reserve/Fairmont Butte SEA No. 57 to the north.

In order to implement a Project design that generates maximum electricity output that is also sensitive to the environment, development areas have been defined for both the Northern and Southern Energy Farms. Development areas are those locations within the Project Site where Project development could occur, as shown on Figure 8. Actual siting and construction disturbance areas would be smaller, but these development "envelopes" have been created to provide flexibility for micrositing and also to limit the extent of potential ground disturbance. On an overall basis, a total of approximately 2,345 acres (approximately 63 percent of the total Energy Farm site) are located within the designated development areas. Of this total, approximately 1,720 acres are located in the Northern Energy Farm, where both solar and wind technologies would be deployed, whereas the designated development areas within the Southern Energy Farm total 625 acres.

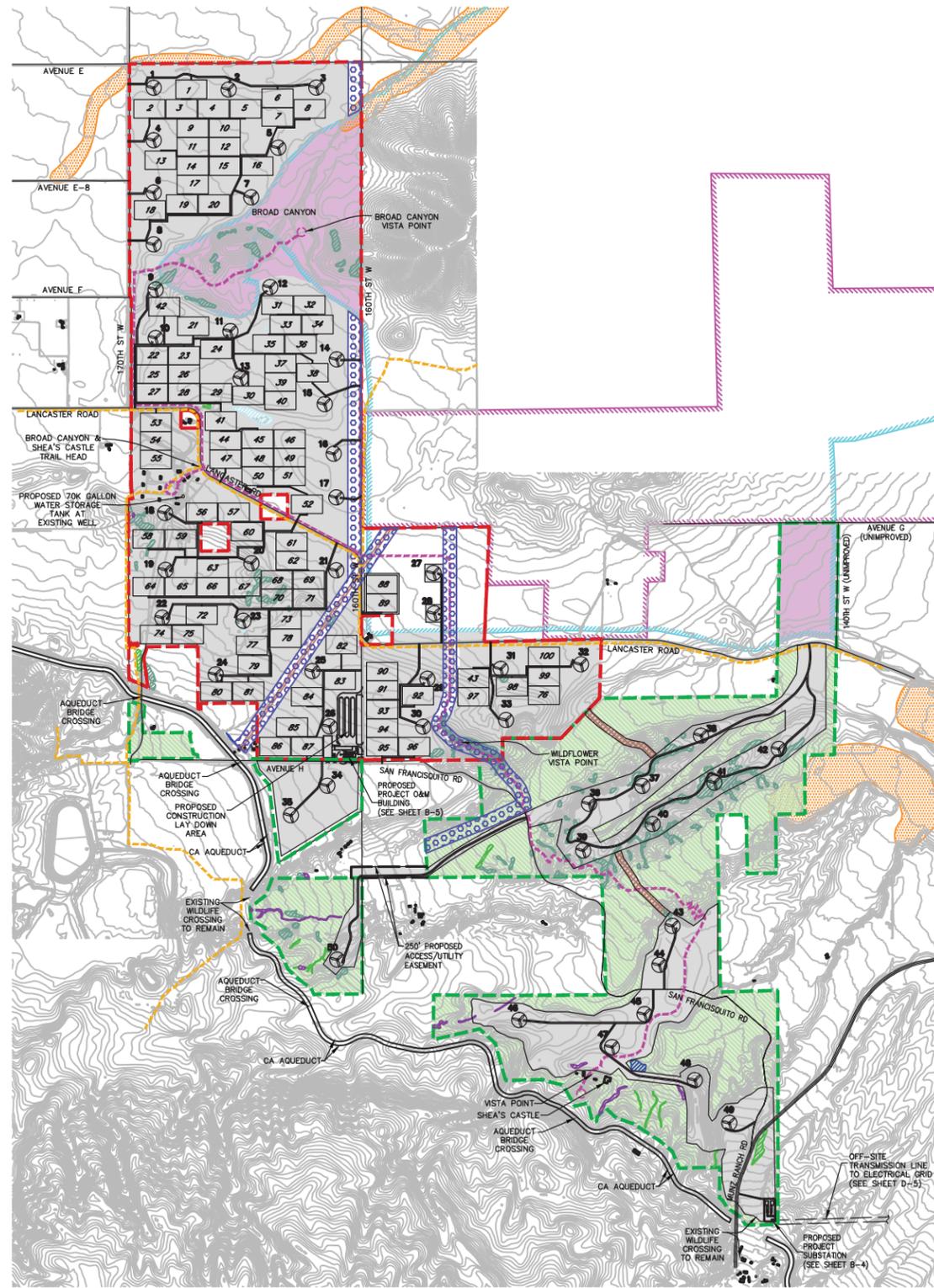
Implementation of the Project as proposed would result in construction disturbance across a total of approximately 970 acres, which translates to 23 percent of the entire Energy Farm. Of this total, 870 acres would occur in the Northern Farm, and 100 acres would occur in the Southern Farm. Some of the construction area would involve a temporary impact, with land restoration to occur immediately after construction. Total

Table 2
Conceptual Plan Components

Use	Building GSF ^a	Quantity	Total Potential Development Area (Acres)	Permanent Disturbance Area (Acres)
Energy Farm Components				
Northern Farm		100 1-MW solar arrays 33 wind turbines	1,720	780
Southern Farm		17 wind turbines	625	60
Operations and Maintenance Facilities/Construction Laydown Yard	15,975	1	5	3
Project Substation		1	5	1
34.5-kV Electrical Collection System		20 miles	490	0
Access Roads		23 miles	60	30
Total			2,900	874
230-kV Gen-Tie Line				
SCE Interconnection		4.8 miles	12.4	0
LADWP interconnection		1.5 mile	3.4	0
Project Total			12.4	0
<p>GSF = Gross Square Feet</p> <p>^a Total impervious area is total land area that would be permanently altered by construction and be covered with paving, foundations, buildings, solar panels, compacted road surfaces, and other compacted ground areas such as wind turbine pads and the contractors yard within the O&M site.</p> <p>Source: Fuscoe Engineering, October 2011.</p>				

permanent ground disturbance would affect approximately 840 acres, with 780 acres in the Northern Farm and 60 acres in the Southern Farm. Based on these acreages, permanent site disturbance would occur across approximately 37 percent of the Northern Energy Farm and approximately 3.8 percent of the Southern Energy Farm, or 22.7 percent of the total site. In order to best respond to market conditions at the time of equipment purchase, the final combination of power generated from wind versus solar energy could be weighted differently. The proposed development standards set forth below, which are the focus of analysis within the Draft EIR, can accommodate various combinations of solar and wind equipment.

Under the Project, all of the proposed solar arrays and 33 of the 50 wind turbines would be located in the Northern Energy Farm. This equipment would be limited to the



WIND TURBINE - PROPOSED SETBACK CRITERION	
ZONING METRIC	"WILDFLOWER" RECOMMENDED VALUE
MAX. STRUCTURE OVERALL HEIGHT (OAH)	500 FEET
MAX. ACCOUSTICAL/NOISE LEVEL OFF-SITE	60 DBA
ON-SITE STRUCTURE SETBACK	BLADE LENGTH
NON-PARTICIPATING PROPERTY LINE SETBACK	400 FEET
NON-PARTICIPATING RESIDENCE SETBACK	1320 FEET
PUBLIC STREET/HIGHWAY SETBACK	1.0 x OAH
PUBLIC ACCESS/UTILITY EASEMENT SETBACK	ROTOR BLADE LENGTH
PUBLIC TRAIL/PEDESTRIAN EASEMENT SETBACK	ROTOR BLADE LENGTH

PV SOLAR - PROPOSED SETBACK CRITERION	
ZONING METRIC	"WILDFLOWER" RECOMMENDED VALUE
MAX. STRUCTURE OVERALL HEIGHT (OAH)	15 FEET
MAX. ACCOUSTICAL/NOISE LEVEL OFF-SITE	60 DBA @ PL
ON-SITE STRUCTURE SETBACK	50 FEET
NON-PARTICIPATING PROPERTY LINE SETBACK	50 FEET
NON-PARTICIPATING RESIDENCE SETBACK	50 FEET
PUBLIC STREET/HIGHWAY SETBACK	50 FEET
PUBLIC ACCESS/UTILITY EASEMENT SETBACK	50 FEET
TRAIL/PEDESTRIAN EASEMENT SETBACK	50 FEET

SITE PLAN INFORMATION		
	NORTHERN ENERGY FARM	SOUTHERN ENERGY FARM
GROSS DEVELOPMENT AREA	1720 AC	625 AC
TOTAL CONSTRUCTION DISTURBANCE AREA	870 AC	100 AC
EARTHWORK (CUT)	1,600,000 CY	450,000 CY
EARTHWORK (FILL)	1,600,000 CY	450,000 CY
EARTHWORK (NET/IMPORT)	0 CY	0 CY
TOTAL PERMANENT DISTURBANCE AREA	780 AC	60 AC

PV SOLAR: 1.0 MW BLOCK - 100 BLOCKS (100 MW)
 WIND TURBINE: 3.0 MW UNIT - 50 UNITS (150 MW)

- LEGEND:**
- DEVELOPMENT AREA (2345 ACRES)
 - SUBSURFACE COLLECTION SYSTEM CORRIDOR (12.8 ACRES)
 - CONSERVATION AREA (342 ACRES)
 - WILDLIFE / HABITAT MANAGEMENT AREA (1000 ACRES)
 - 300-FOOT WILDLIFE CORRIDOR
 - PROJECT BOUNDARY (NORTHERN ENERGY FARM - WIND & SOLAR SYSTEM) (W/FENCE)
 - PROJECT BOUNDARY (SOUTHERN ENERGY FARM - WIND ONLY SYSTEM) (W/O FENCE)
 - FLOOD HAZARD LIMITS (PER FEMA)
 - FAIRMONT-ANTELOPE BUTTES SEA LIMITS (475.8-ACRES ON-SITE) (26.3-ACRES ~5.5% DISTURBED)
 - POPPY RESERVE BOUNDARY
 - UTILITY EASEMENT LIMIT
 - VERNAL POOL
 - OPEN WATER
 - PERENNIAL FORBLAND
 - PERENNIAL GRASSLAND
 - RIPARIAN WOODLAND AND SCRUB
 - WIND TURBINE GENERATING SYSTEM (APPROXIMATE LOCATION)
 - SOLAR PANEL ARRAY BLOCK-SINGLE AXIS TRACKING (APPROXIMATE LOCATION)
 - 20-FOOT WIDE PEDESTRIAN/EQUESTRIAN TRAIL (6.7 MILES ±)
 - LOS ANGELES COUNTY MASTER PLANNED TRAILS

Source: Fuscoe Engineering, September 2011.



Wildflower Green Energy Farm
Figure 8
 Conceptual Site Plan

designated development areas and must be installed and operated in accordance with the development standards established for this Project as set forth below. The remaining 17 wind turbines would be located within the Southern Energy Farm.

The environmental analysis presented herein supports development throughout the designated development areas within both the Northern and Southern Energy Farms, subject to the development standards outlined below.

(a) Development Standards

The final siting of the wind turbines and solar arrays would be subject to a series of development standards consisting of designated development areas, maximum number of wind turbines; and setbacks from property lines, existing residences, and public right-of-ways as well as minimum distances between the wind turbines themselves. These development standards have been expressly developed to create a site design that minimizes impacts to the environment and maintains sensitivity to surrounding land.

The permitted development areas are shown in Figure 8 on page 26. Project development can only occur within these areas. Within the Northern Energy Farm, SEA No. 57 occurs across a total of 475.8 acres. Of this total, 26.3 acres (5.5 percent of the area within SEA No. 57) are located within a designated development area. Approximately 1,000 acres across the Site would be preserved for wildlife habitat/management and would not be disturbed or developed in any way. A total of 132 acres of the Site would be preserved for wildlife migration corridors, 342 acres are set aside as voluntary conservation areas, 16.4 acres are proposed for public pedestrian/equestrian trails, and 37 acres are within flood hazard zones.

A maximum of fifty (50) wind turbines can be developed within the Energy Farm. This limitation is principally intended to address the potential visual impacts associated with this particular Project component.

Proposed setback standards from public highways, streets, public access easements, and public trails are listed in Table 3 on page 28. A minimum 50-foot buffer would be maintained along the perimeter of the Energy Farm, as well as along the public streets that traverse the Energy Farm.

Wind turbine towers would be sited with a minimum setback of approximately 400 feet maintained from any non-participating property line. A setback of 1,320 feet (0.25 mile) would be maintained from any off-site or non-participating residence. This is intended, in part, to reduce noise levels generated by the operating wind towers at any off-site residence. A minimum setback, calculated as one times the overall machine height

**Table 3
Proposed Setback and Spacing Criteria**

Technology	Proposed Development Standard	Setback Value
Wind	Maximum Structure Overall Height (OAH)	500 feet
	On-Site Structure Setback	blade length
	Non-Participating Property Line	400 feet
	Non-Participating Residence Setback	1,320 feet
	Public Street/Highway Setback	1.0 x OAH
	Public Access/Utility Easement Setback	blade length
	Public Trail/Pedestrian Easement Setback	blade length
Solar	Maximum Structure Overall Height (OAH)	15 feet
	Maximum Acoustical/Noise Level Off-Site	55 dBA
	Minimum On/Off-Site Structure Setback	50 feet
	Non-Participating Property Line	50 feet
	Public Street/Highway Setback	50 feet
	Public Access/Utility Easement Setback	50 feet
	Public Trail/Pedestrian Easement Setback	50 feet
<hr/> <p><i>Source: Element Power and Fuscoe Engineering, October 2011.</i></p>		

(measured from the base to the tip of the blade in its fully extended, upright position), would be maintained from any publicly maintained highway or street. For the purposes of the EIR, this criterion would yield a setback of approximately 500 feet from the cited uses. Further, a setback equal to the blade length would be maintained from the outermost extension of any blade to any pedestrian or public access/utility easement or on-site structure. This criterion would yield a setback of approximately 170 feet from the cited uses.

With regard to the PV solar facilities, a minimum setback of 50 feet would be maintained from any non-participating property line, publicly maintained highway or street, public access or utility easement, and any pedestrian easement. A minimum setback of 50 feet would be maintained from any on- or off-site structures.

(i) Key Project Components

Wind Turbine Generating System

Based on the Conceptual Plan, 50 wind turbines would reach a height of approximately 500 feet from grade to the fully extended blade tip. The turbines themselves would have a 328-foot-tall tower and rotors (blades) that extend approximately 340 feet in

diameter (170-foot-long blades). Concrete foundations for the wind turbines would be approximately 70 feet in diameter and 8 to 15 feet in depth, within a 30-foot-diameter circular pedestal base. Foundations would be below ground and completely covered by a 1.4-acre pad composed of compacted backfill with dimensions of approximately 250 feet by 250 feet. After construction, the pads would be covered and revegetated to provide a natural landscape cover. Based on these design parameters, the pads for 50 wind turbines would cover approximately 71.7 acres on the Project site.

In order to develop an efficient turbine configuration (i.e. to capture the Project Site's maximum wind energy potential) and to provide efficient access, via roads, to the turbines in the final layout, turbines would be spaced no closer than eight times the rotor diameter (feet) from downwind wind turbines and two times the rotor diameter (feet) from lateral wind turbines. The proposed plan allocates 33 turbines to the Northern Energy Farm and 17 to the Southern Energy Farm, recognizing that there could be some adjustment to the final apportionments due to micrositing factors, though these adjustments would occur within designated development zones.

PV Solar Modules

The proposed solar photovoltaic modules would be lined up in rows and arranged into approximately 1-MW blocks, also referred to as "arrays," that would also include internal access roads and inverter equipment. The dimensions of each array would be approximately 708 feet wide and 420 feet long, based on current panel efficiencies. The amount of impervious surface area created by the solar PV arrays (panels and internal roads) across the Northern Energy Farm would be approximately 700 acres. Ground surfaces within the panel areas would be planted with low-level, wildlife-friendly, non-flammable vegetation.

(3) Energy Farm Support Facilities

(a) *Energy Farm Support Facilities*

(i) *Electrical Infrastructure*

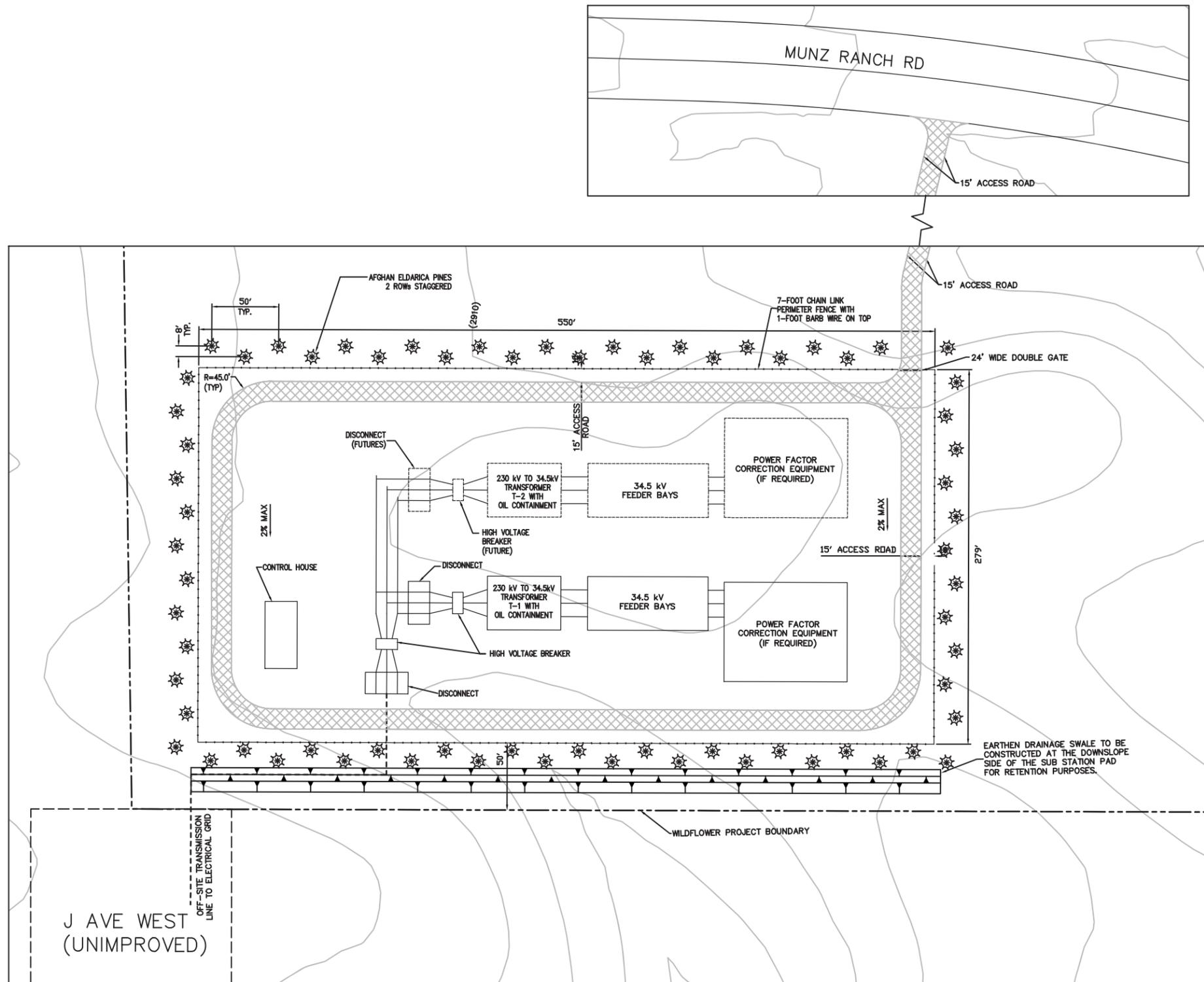
Power from the proposed wind turbines and/or solar PV arrays would be transmitted via underground 34.5-kV collection lines to the Project substation where it would be stepped up to a 230-kV transmission voltage and transmitted via a 230-kV Gen-Tie Line to the off-site Antelope Valley Substation owned and operated by SCE, or to a planned renewable energy transmission line within the LADWP Barren Ridge–Rinaldi electricity transmission corridor.

The 20-mile-long 34.5-kV collection system would be buried approximately 18 to 24 inches below the surface of proposed access roads within the solar arrays and approximately 42 inches below the road surface within turbine access roads. These elements are not anticipated to result in any permanent surface disturbance beyond that required to construct and operate the roads. In some limited locations, the collection system would connect strings of turbines via routes not related to the Project's access road system. These areas are identified as "subsurface collection system corridors" on Figure 8 on page 26.

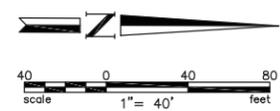
The proposed on-site Project substation would occupy an area up to 5 acres in size (i.e., 550-foot length and 280-foot width), located in the southeastern corner of the Energy Farm. The substation would include, as shown in Figure 9 on page 31, an access road around the perimeter of that site, a control house, an unlit outdoor power infrastructure such as bus bars, grounding cables, underground transmission lines, trusses, transformers and breakers. Building heights would not exceed 40 feet, but some pole structures could reach heights of over 75 feet. Many of the steel structure components would be placed on 6- to 8-inch-deep slab-on-grade pad foundations, whereas some of the steel trusses would be mounted on 5-foot by 3-foot concrete pier footings. Relay cabinets will be located on pads. The main transformer foundation would be a cast-in-place concrete containment foundation approximately 4 feet deep. The balance of the yard would be graveled.

Each of the substation's high voltage transformers would contain approximately 5,000 gallons of dielectric fluid (mineral oil), and would be located on a concrete pad with dimensions of approximately 25 feet by 40 feet. A containment area would be provided to accommodate the volume of the dielectric fluid in the transformer (in the event of an accidental release) plus an allowance for precipitation. It would be lined with an impermeable membrane covered with gravel, and would include a drain with a closed drain valve.

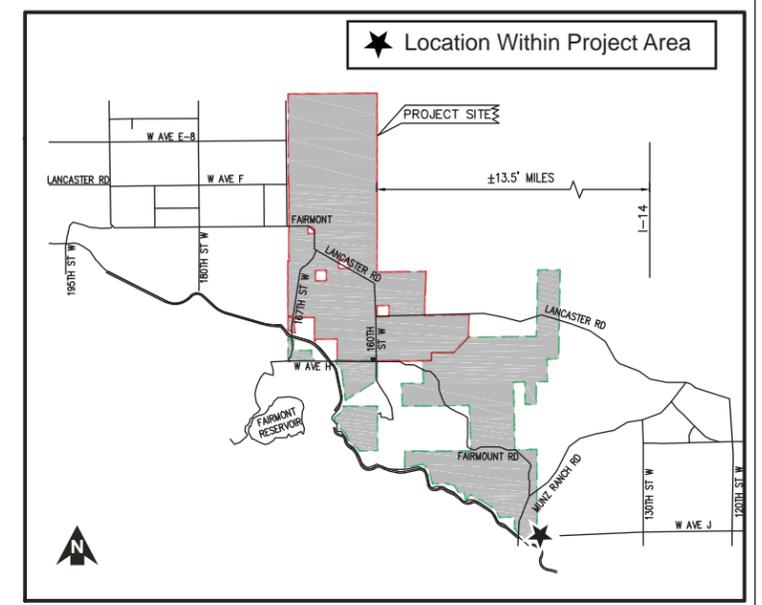
Grounding of the substation will be accomplished by a ground grid designed to meet the requirements of Institute of Electrical and Electronics Engineers. Typical ground grids consist of direct buried copper conductors with 8-foot-long, copper-clad ground rods arranged in a grid pattern to approximately 3 feet outside of the Project substation area. Furthermore, outdoor electrical equipment would be contained within individual National Electrical Manufacturers Association (NEMA) 3R metal-clad enclosures. In addition, the equipment is also subject to the product safety standard requirements for Underwriters Laboratories (UL) and Conformance European (CE) certifications. The equipment is safe to touch for humans and wildlife and poses no electrical shock risk. Further, the outdoor equipment does not present any additional fire hazard compared to equipment inside a larger enclosure.



SUBSTATION LAYOUT
SCALE: 1" = 40'



-  CRUSHED AGGREGATE BASE
-  AFGHAN PINE



VICINITY MAP

Source: Fuscoe Engineering, September 2011.



(ii) Operations and Maintenance Building (O & M) and Laydown Yard

An approximately 16,000-square-foot O&M building would accommodate approximately 15 employees and equipment repair facilities. The building would be approximately 75 feet wide, 213 feet long, and up to 22 feet high. The interior of the building is anticipated to include several administration and records offices, a computer server room, kitchen/lunch room, restrooms, workshop/tool storage area, maintenance and equipment storage areas, a waste storage area, and a solar equipment storage area. Design and construction of the building would occur in a manner consistent with County building standards. The operations and maintenance building foundation will be constructed on a 6- to 8-inch-thick, on-grade concrete slab. The foundation would be poured over an 36-inch-deep rebar grade beam and would include a steel mesh center reinforcement and rebar edge stability reinforcement.

A 20-acre, temporary laydown yard and contractor parking area would be located adjacent to the operations and maintenance building. With maximum dimensions of 900 feet by 1,500 feet, the L-shaped yard area would be large enough to accommodate approximately 20 wind turbines and necessary solar equipment during Project construction. The temporary laydown yard would contain three rectangular storage areas situated between four crane access corridors (crane walks) in addition to construction trailers, trash containers, and a fuel storage area. After the construction phases, the yard area would be cleared and revegetated.

Additional facilities located on the site of the O&M building include fire fighting support apparatus including a potable/fire water well, fire pump, fire hydrant and a 56,000-gallon water tank to aid in fire fighting. In addition, the O&M building site includes a septic system, designed in accordance with all County requirements, to meet the wastewater needs of the personnel at the site.

Figure 10 on page 33 shows the location and layout for the O & M building and related facilities.

(b) Access and Parking

Regional vehicular access to the Site is via State Route 138 (Avenue D) from Interstate 5 or State Route 14. Primary ingress to the Energy Farm would be provided along 170th Street W and Lancaster Road, which crosses the Site in a northeast/southeast direction. Public use of Lancaster Road and 170th Street W would continue with Project implementation. The Project would also utilize other existing roads, such as 160th Street W to the extent possible. Additional on-site access roads would be constructed as necessary to accommodate Project construction and operation. Approximately 23 miles of

new on-site access roads are proposed throughout the Energy Farm, including approximately 10 miles of roads within the solar PV arrays and 13 miles of roads providing access to each individual turbine and other Project-related facilities outside of the arrays.

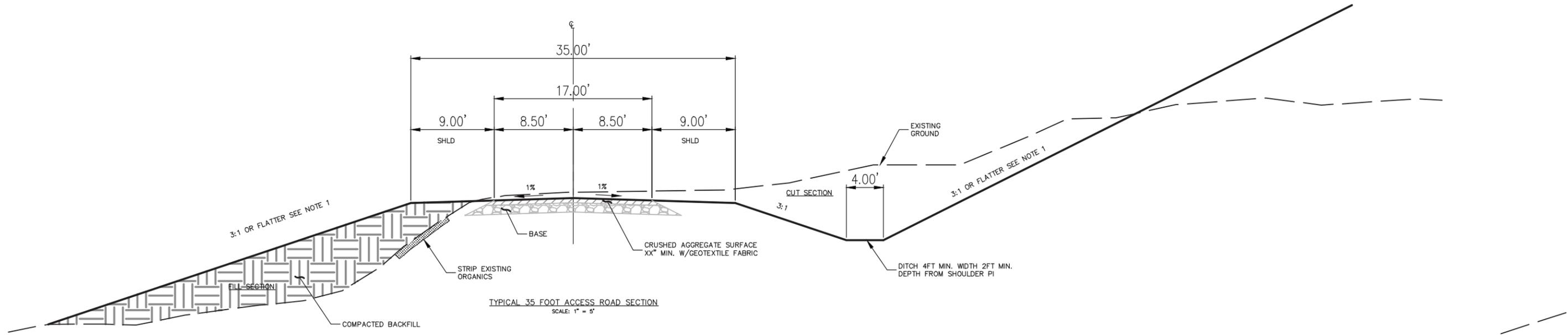
Proposed on-site private access roads to wind turbines would be 35 feet wide during construction (17-foot aggregate roads with 9-foot shoulders), as shown on Figure 11 on page 35. These roads would be constructed such that they could be utilized during Project construction and retained for use during Project operations. The 9-foot shoulders would support a heavy lift crane during Project construction, and once construction is completed would be reclaimed such that only the central 17-foot aggregate surface would form the long-term access road. On-site roads would be graded and topped with a 6-inch gravel layer. A dust retardant (usually biodegradable and polymer-based) would be used on the access roads during construction. On-site access roads would have a turning radius of approximately 125 degrees, to accommodate the semi-trucks carrying oversize loads such as the blades, cranes, nacelles, and tower sections. In addition, the Energy Farm's access points from the adjoining public roads would be improved where necessary (i.e., creating 120 degree turning radii) to facilitate truck travel onto the Project Site.

Parking for employees and visitors would be provided within a 32-space, asphalt-paved surface lot adjacent to the O&M building (see Figure 10 on page 33). Additional parking for construction/maintenance-related vehicles throughout the life of the Project would also be available within a permanent 2.5-acre (500 feet by 196 feet) gravel-covered area located near the O&M building. Water would be used as a dust treatment on the parking areas, possibly supplemented with a commercially viable non-toxic dust abatement product, if warranted.

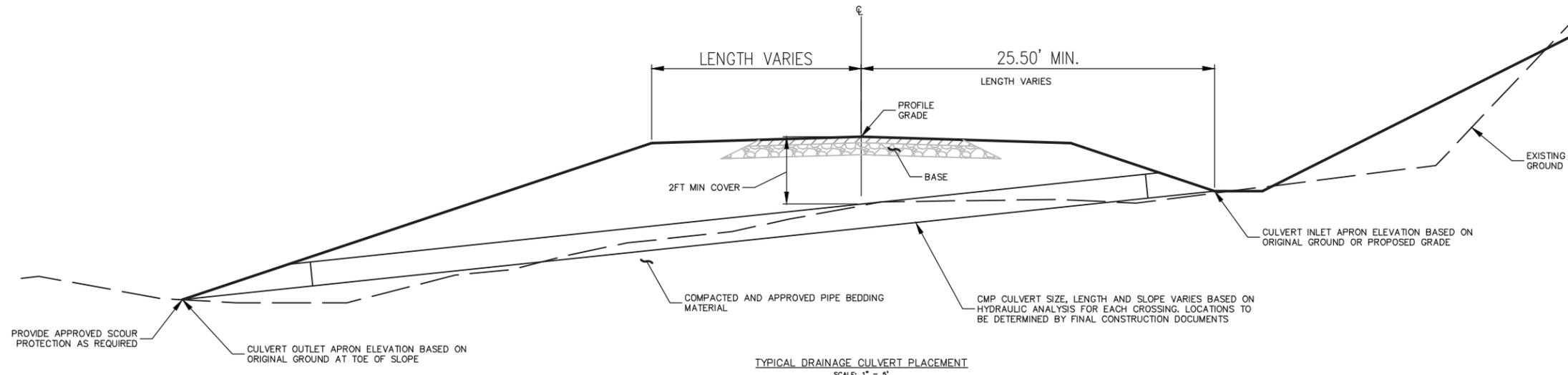
(c) Signage and Lighting

The Project also includes a 3-foot by 4-foot Project identification sign that would be located at the O&M building and mounted on fences surrounding the Project substation. All signage installed at the Project Site will comply with all applicable County code requirements.

Minimum lighting would be utilized on the Energy Farm and would be primarily located in the area of the O&M building. Proposed lighting at this location would consist of low-level way-finding safety and security lighting that would be oriented downwards and for signs with lighting directed only onto the sign and only enough light sufficient to light the sign. Any lighting required in this area would be designed so as not to illuminate an area greater than necessary. Light sources would be shielded or directed to avoid any direct illumination of any off-site properties, except as may be required by the FAA. Turbines would be lit in accordance with FAA requirements. This could be designed as a constant



TYPICAL 35 FOOT ACCESS ROAD SECTION
SCALE: 1" = 5'



TYPICAL DRAINAGE CULVERT PLACEMENT
SCALE: 1" = 5'

- NOTES:**
1. FINAL SLOPES TO BE DETERMINED BY CONTRACTOR'S GEOTECHNICAL ENGINEER.
 2. THE CENTRAL 17' FORMS THE LONG TERM ACCESS ROAD. THE 9 FOOT SHOULDERS SUPPORT THE HEAVY-LIFT CRANE.
 3. CULVERTS TO BE DESIGNED BASED ON CAL/TRANS STANDARD REQUIREMENTS.
 4. VEHICLE ACCESS ROADS ARE TO BE INSTALLED FOR TURBINE DELIVERY, CONSTRUCTION AND ASSEMBLY OF WIND TURBINE GENERATOR SYSTEM (WTGS). ROADS WILL REMAIN AND BE USED SOLELY ON PRIVATE PROPERTY

Source: Fuscoe Engineering, September 2011.

Wildflower Green Energy Farm



Figure 11
Typical Turbine Access Road Section

perimeter approach, with turbines at either end of each string lit at the top at night with a red flashing FAA-approved light. Such a system may also include some turbines within strings with additional lighting. Turbine lights would flash red at a synchronized interval mandated by the FAA.

The solar arrays would not be lit to help maintain the existing nighttime environment. The O & M Building would require a single shielded security light during nighttime hours, and the substation would also contain low-level security lighting. If lighting is needed for night maintenance elsewhere in the Energy Farm or along the Gen-Tie Line, portable lighting would be used.

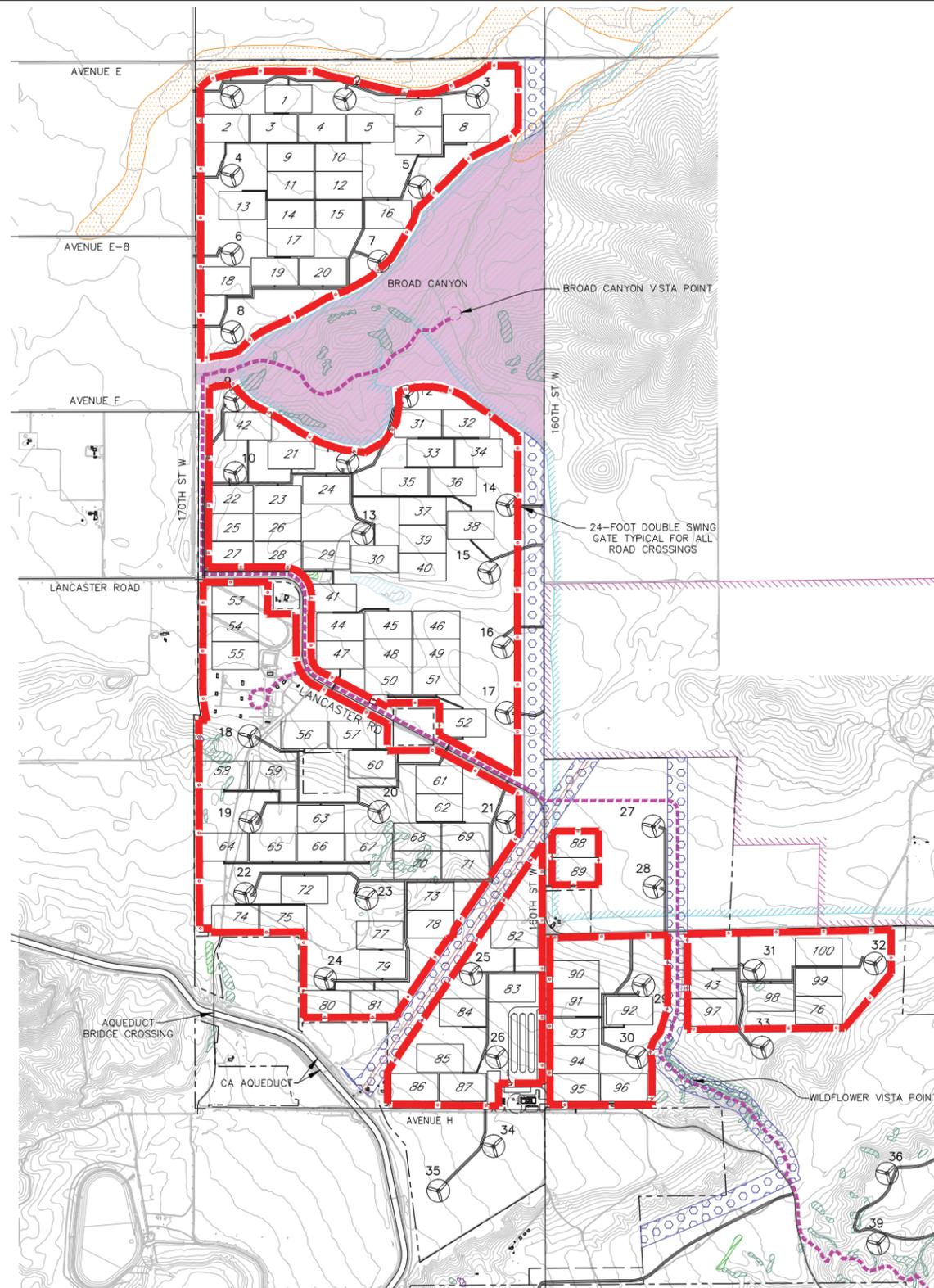
(d) Safety, Security, and Fencing

A six-foot tall chain link fence would run along the perimeter of the solar arrays in the Northern Energy Farm. This fencing would be designed to accommodate wildlife movement with a 1-foot-wide opening at the bottom. To protect people from accidental exposure to potentially high voltages, 7-foot-high chain link fencing, with a 1-foot section of barbed wire on top, would be installed around the project substation. Six-foot-high chain link fencing would be installed around the O&M building. Driveway access to the O&M facility and the substation will be controlled with rolling gates. Six-foot-high chain link fencing with a 1-foot wildlife opening at ground level would be installed along the pedestrian/equestrian trail where the trail traverses areas of solar arrays. In the Southern Energy Farm, the trail would not be fenced, but would include periodic signage. Proposed perimeter and pedestrian/equestrian trail fencing is illustrated in Figure 12 on page 37.

For safety and security purposes, each wind turbine would be equipped with a fire extinguisher at the base of the turbine, or possibly within the nacelle. Fire extinguishers would also be located at the O&M building; the fire extinguisher enclosures would be painted red and designed for immediate access. The inverters that would be located in each of the solar arrays would be in locked steel boxes.

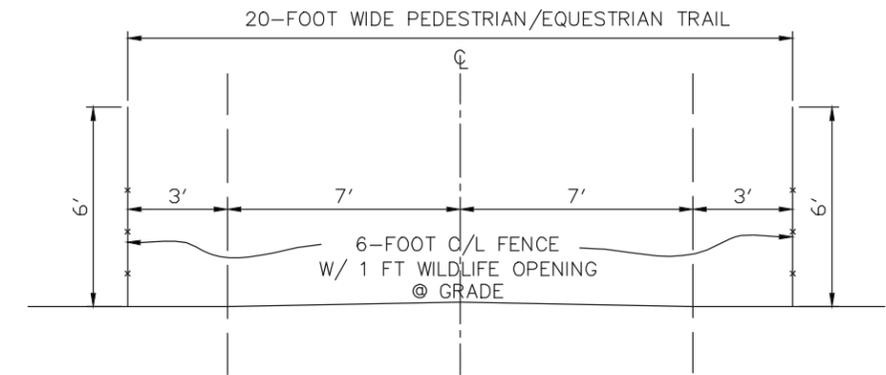
b. Gen-Tie Line

From the substation in the southeastern corner of the Energy Farm, the proposed 230-kV Gen-Tie Line would be placed in an underground duct, extending east along the alignment of Avenue J. The Gen-Tie Line would connect to either SCE's existing Antelope Valley Substation at Avenue J and 95th Street (a distance of 4.8 miles), or directly to LADWP's Barren Ridge–Rinaldi transmission line (a distance of 1.5 miles). As the final alignment for the Gen-Tie Line is subject to the acquisition of a series of easements, for the purposes of this EIR, it is assumed that the Gen-Tie Line would be placed within a 0.125-mile-wide corridor along the proposed route. A 50-foot-wide construction easement would

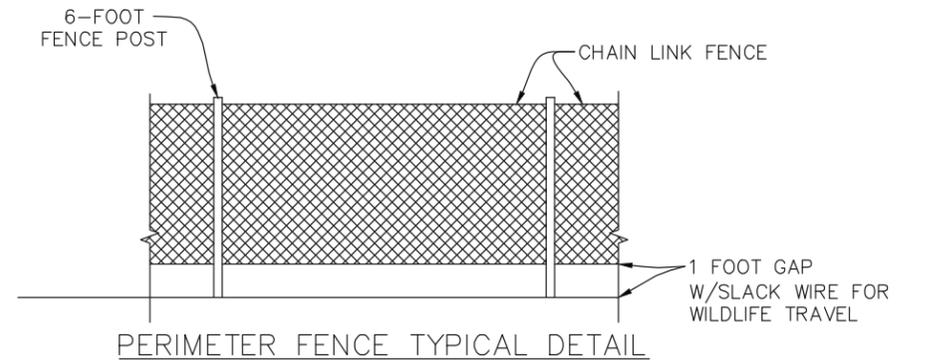


LEGEND:

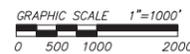
- CONSERVATION AREA (342 ACRES)
- 300-FOOT WILDLIFE CORRIDOR
- FLOOD HAZARD LIMITS (PER FEMA)
- WIND TURBINE GENERATING SYSTEM (APPROXIMATE LOCATION)
- SOLAR PANEL ARRAY BLOCK-SINGLE AXIS TRACKING (APPROXIMATE LOCATION)
- 20-FOOT WIDE PEDESTRIAN/EQUESTRIAN TRAIL PER TYPICAL DETAIL HEREON (6.7 MILES ±)
- PROJECT BOUNDARY
- 6-FOOT PERIMETER FENCE PER TYPICAL DETAIL HEREON



PEDESTRIAN/EQUESTRIAN TRAIL
NORTHERN ENERGY FARM –
TYPICAL SECTION



PERIMETER FENCE TYPICAL DETAIL



Source: Fuscoe Engineering, September 2011.

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Figure 12
Fence Layout and Details

be established, and the permanent right of way containing the underground duct would be 20 feet wide.

If the Project's Gen-Tie is connected to the LADWP transmission line, a switchyard would need to be built to convey the Project's electrical energy, in proper form, into the transmission facilities. The switchyard site would cover up to 4 acres and would be located immediately adjacent to the LADWP corridor easement. If the Gen-Tie Line is connected to SCE's Antelope Valley Substation, a 230-kV riser structure (a 100- to 120-foot-high steel monopole) would be constructed immediately adjacent to the substation site. From the riser, the final connection to the substation would be via overhead lines, as required by SCE. A sample of a possible LADWP switchyard station layout is illustrated in Figure 13 on page 39. A typical 230-kV cable riser structure for the SCE substation interconnection is also shown on Figure 13.

7. Project Construction

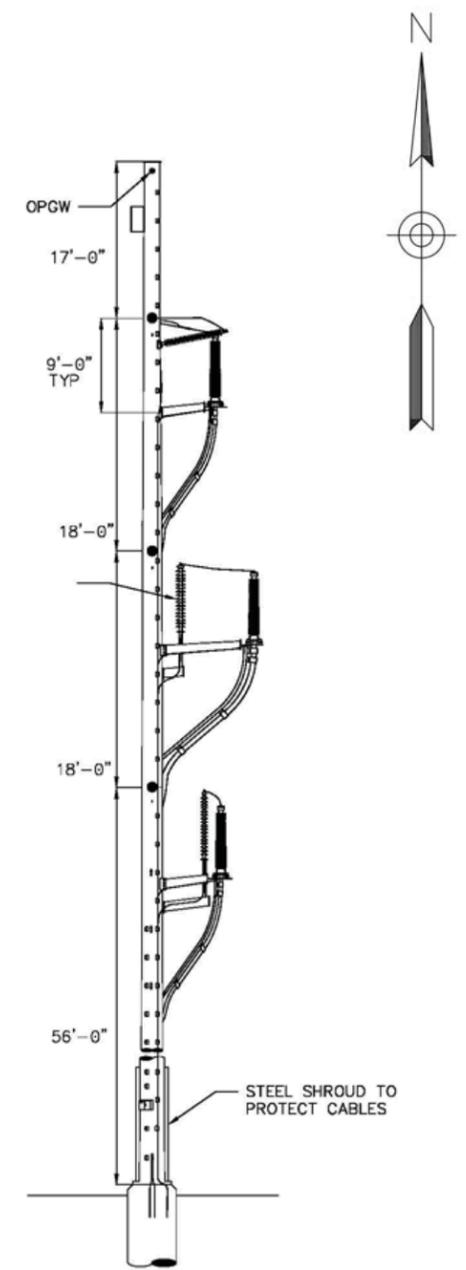
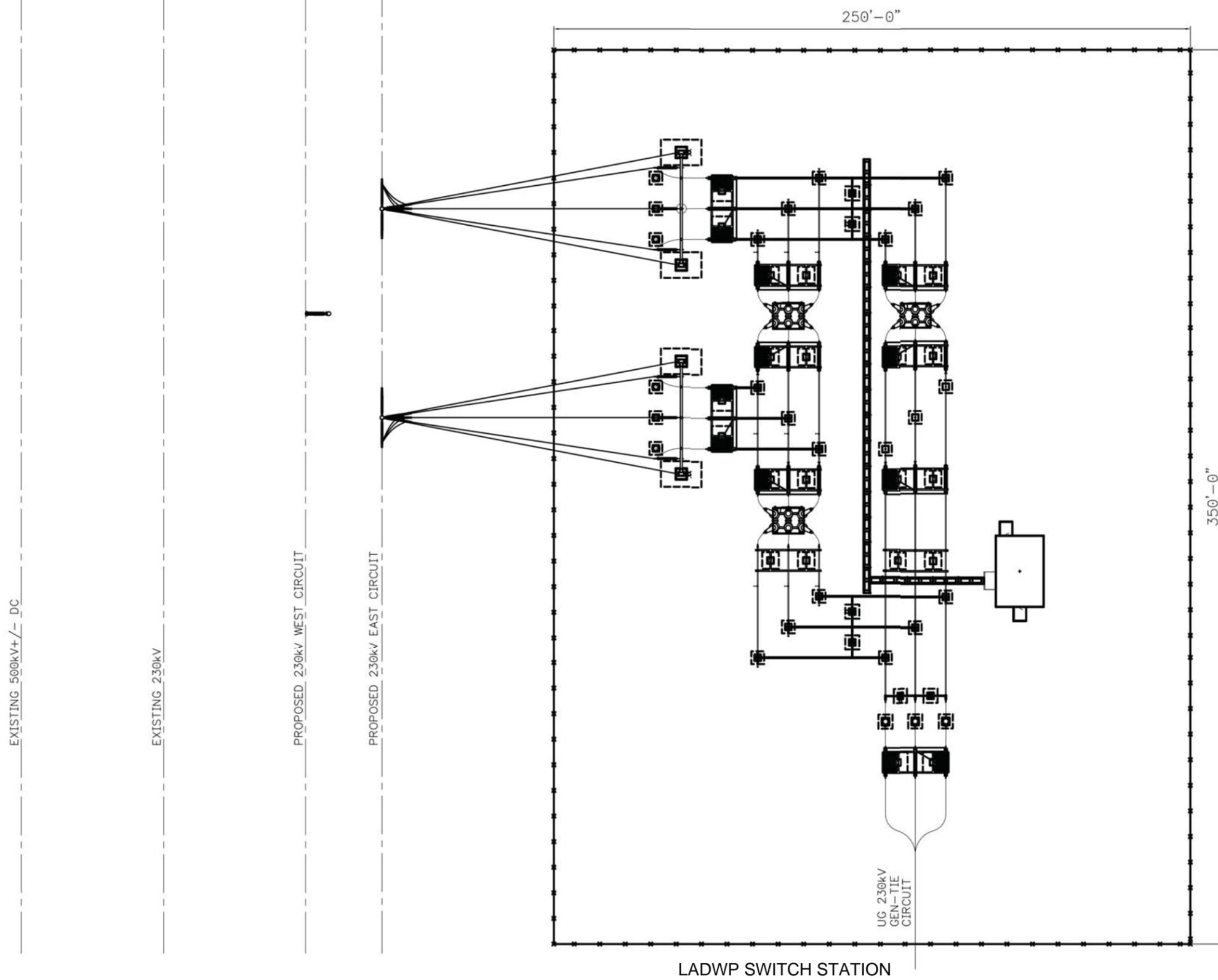
a. Construction Activities

(1) Energy Farm

(a) Clearing and Grading

Grading improvements with regard to the Energy Farm are classified as either "focused" or "extended" ground-disturbance activities. Focused ground-disturbance activities are deeper, more discrete and involve smaller area footprints, as compared to the extended ground-disturbance activities, which occur at shallower depths over relatively larger areas. The focused grading improvements include excavations and grading in support of the O&M building, the Project substation, solar panel piers/posts, wind turbine tower foundations, and related pad areas. The extended ground-disturbance activities include shallow grading work and affect larger areas for the solar array pads, the parking and equipment temporary lay down pad areas located adjacent to the O&M building area, on-site access roads, the electrical collection systems, and the Gen-Tie Line. A construction period wildlife management plan will be developed to reduce harm to wildlife as a result of construction activities, including precautions for venomous snakes.

Peak daily grading is estimated to affect up to 10 acres and involve approximately 10,000 cubic-yards. Total earthwork volumes for the entire Project are presented in Table 4 on page 40. Limited amounts of water would be used during construction for dust suppression, and a water-soluble, non-toxic agent, such as Durasoil, would be used to further suppress dust on the roads across the Site, which would decrease the total amount of water required.



SCE 230-KV CABLE RISER
 WITH ARM SUPPORTS FOR
 TERMINATORS AND
 ARRESTORS IN VERTICAL
 POSITIONS



Source: Fuscoe Engineering, September 2011.

Table 4
Summary of Grading Quantities

Project Component	Quantity in Cubic Yards		
	Cut	Fill	Acres
Northern Energy Farm	1,600,000	1,600,000	870
Southern Energy Farm	450,000	450,000	100
Gen-Tie Line—SCE Connection	27,300	17,900	14
Gen-Tie Line—LADWP Connection	8,500	5,500	3.4
Total Energy Farm with SCE Connection	2,077,300	2,067,900	2,393
Total Energy Farm with LADWP Connection	2,058,500	2,055,500	2,384
<i>Source: Fuscoe Engineering, September 2011.</i>			

(b) Wind Turbines

Construction of the wind turbines would consist of five main activities: (1) civil work, (2) electrical work, (3) component deliveries, (4) erection, and (5) commissioning. Civil work would include the construction of access roads, foundations, and reclamation following initial construction activities. Electrical work would include collection system wiring, tower wiring, and Project substation construction. Component deliveries would include the delivery of wind tower components to the Project Site, whereas erection and commissioning would include the assembly of the wind turbine components and any testing necessary to make the Project fully operational. These activities and the sequence of turbine construction are shown in Table 5 on page 41.

Approximately ten wind turbines would be under construction at any one time. The construction process would start with the creation of the foundations for the wind turbines which would consist of excavations that are approximately 70 feet wide by 70 feet long by 8 feet deep. During the pouring of the foundations, six concrete trucks per day, per foundation, would deliver concrete for each foundation via the on-site construction access roads. Concrete would be trucked into the Site from an existing commercial concrete batch plant located in Lancaster, along Route 138 and south on 170th Street W to the Project Site entrance. It is anticipated that it would take one day to pour each foundation. Concrete foundation bases would be approximately 30 feet in diameter, with a 17-foot concrete pedestal. The base of each foundation would require a maximum of 250 cubic-yards of concrete, and the pedestal would require an additional maximum of 30 cubic-yards of concrete depending on individual site conditions.

A number of oversize semi trailer trucks would deliver the components of each wind turbine. The deliveries would be made on-demand at the request of the construction crew

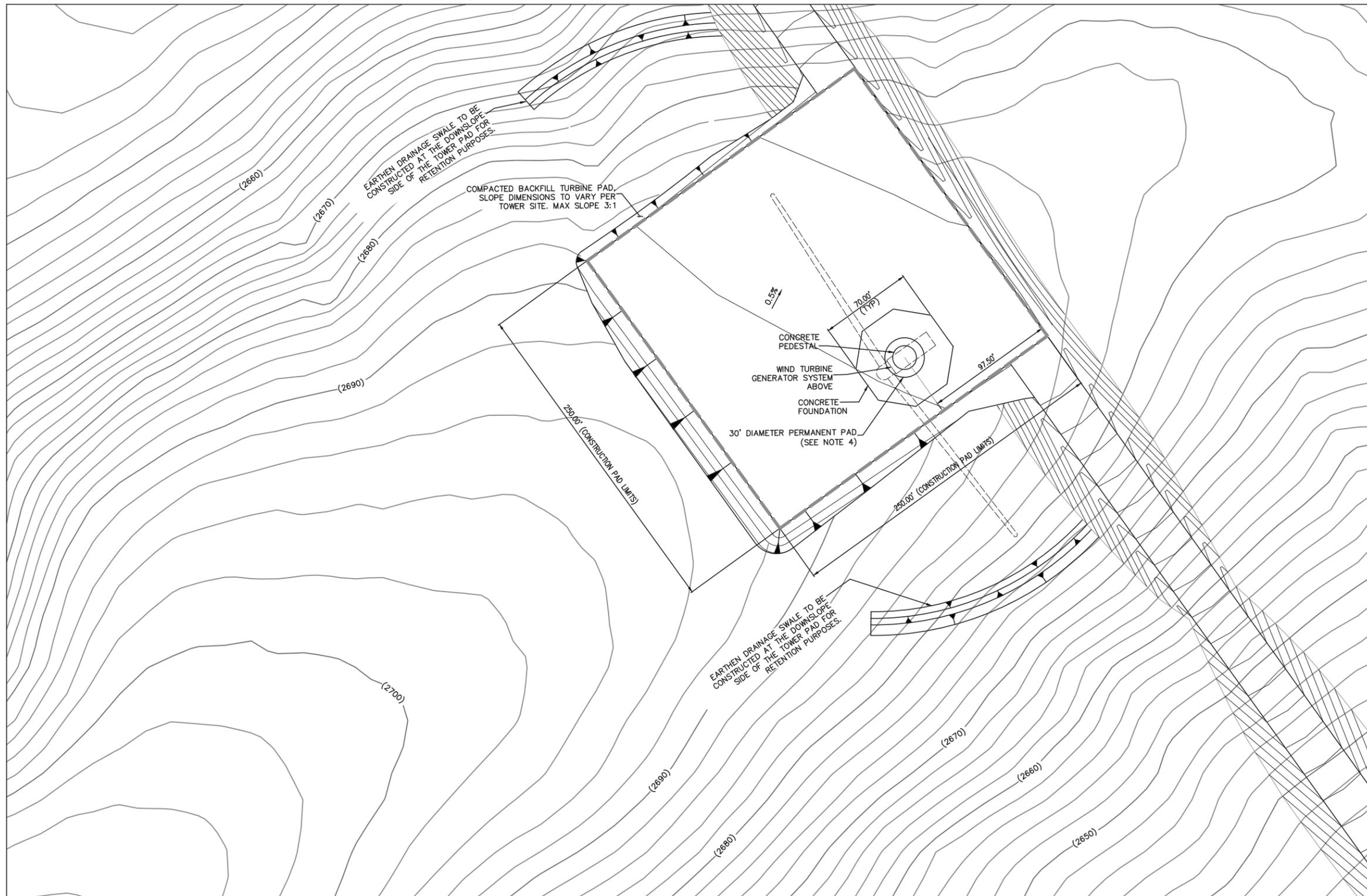
Table 5
Wind Turbine Construction Sequence and Activities

Sequence	Wind Turbine Construction Activity	Activity Type
1	Access Roads and Collection System	Civil and Electrical
2	Excavate Foundations	Civil
3	Pour Mud Mat	Civil
4	Place rebar and Anchor Bolts	Civil
5	Pour Foundation	Civil
6	Backfill	Civil
7	Create Crane Pad	Civil
8	Offload Wind Turbine Components	Component Delivery
9	Set Base/Mid and Build Rotor	Erection
10	Set Top, Nacelle, Rotor	Erection
11	Wire Towers	Electrical
12	Commission Turbines	Commissioning
13	Reclaim Construction Areas	Civil
<i>Source: Element Power 2011.</i>		

(a few turbines could be stored on-site). Cranes would be used to unload the equipment from the trucks into the wind turbine assembly area or construction lay down area.

Figure 14 on page 42 shows a conceptual wind turbine assembly area. Each assembly area would accommodate a crane pad, turbine concrete pedestals and foundations, and wind turbine components. A temporary drainage culvert would be constructed around each assembly area as required to prevent surface water from flowing across the Site during any rain events that may occur during construction.

Erection of the wind towers would be accomplished in stages beginning with construction of the base tower section. The base tower would be erected vertically and attached with large metal bolts to the concrete pedestal of the foundation. The second stage would entail setting the mid-tower and top section in place. The mid-tower would be hoisted with a crane and placed on top of the base tower. Subsequently, the nacelle is fixed via a crane to the top turbine section. Assembling the rotors takes place on the assembly pad near the tower base before the rotor, including hub and blades, is raised and fixed to the nacelle. The top tower would be hoisted and attached to the top of the mid-tower while the three blades would be assembled into rotors on the ground. Next, the nacelle would be attached to the top of the tower, followed by the rotor and hub, then finally



NOTES:

1. PRIVATE VEHICLE ACCESS ROADS ARE TO BE INSTALLED FOR DELIVERY, CONSTRUCTION AND ASSEMBLY OF WIND TURBINE GENERATOR SYSTEM (WTGS).
2. TOWER SECTION INTERFACE SHALL BE BOLTED TO FOUNDATION AND WTGS. ALL MATERIALS AND CONSTRUCTION MATERIALS SHALL BE AS NOTED ON WTGS MANUFACTURES SPECIFICATIONS.
3. BACKFILLED GRADED PAD SHALL HAVE A SURFACE SLOPE NO GREATER THAN 0.5%.
4. PERMANENT PAD WILL CONSIST OF 30' DIAMETER YARD AREA COVERED WITH STONE AGGREGATE ALL WEATHER SURFACE.

TYPICAL WIND TURBINE CRANE PAD AND FOUNDATION LAYOUT

Source: Fuscoe Engineering, September 2011.

Wildflower Green Energy Farm

the “nose cone” or “spinner.” Some turbine manufacturers specify that the hub is to be lifted and fixed to the nacelle and each blade attached by bolts to the hub separately.

The final step of turbine installation would include site reclamation by replanting temporary disturbed areas, and controlling the spread of weeds. The turbine locations, roads, and collection system area would be compacted pursuant to County standards.

Using a grader, a dump truck, and potentially an excavator, dirt and rock along routes designated as access roads along turbine strings would be recontoured to below 12 percent grade and graveled with culverts and drainage features to prevent sediment transport off of the site. Access roads would be 35 feet wide during construction and 17 feet wide for operations, to accommodate cranes and turbine blades, nacelles, tower sections, and hubs.

(c) Solar PV System

The construction of the solar PV facilities begins with the siting of the underground collection system and inverters. The 34.5kV collection system would be located underground to eliminate visual impacts into a 3-foot-wide by 18- to 24-inch-deep trench dug by a trencher. Once underway, the construction crew would set up a work station which would be centered near the closest access road to the array designated for construction.

Installation of the solar modules would start by driving steel H-shaped piers (or similar) into the ground as a mount for brackets attached to solar modules. Alternatively, workers would mount the solar modules to a series of ballast concrete foundations precast or cast-in-place concrete ballasts or embedded foundations. The ballast foundations are approximately 10 feet long by 2 feet wide and 1.5 feet high. Embedded foundations may include drilled concrete piers approximately 24 inches in diameter and 6 to 8 feet deep, driven piers approximately 4 to 6 inches in diameter and 10 to 15 feet deep, or screw-type foundations approximately 4.5 to 12 inches in diameter and 15 feet deep. If tracker units are the selected technology, they would be installed on concrete ballast or embedded foundations, whereas the fixed tilt (stationary) units, if selected, would only be installed using driven pier or screw type embedded foundations.

Individual solar modules would be installed onto the foundation via a racking system constructed using vibrating steel I- or H-channel posts driven 5 to 10 feet into the ground with a construction apparatus mounted to a light truck or golf-cart-style vehicle. Racks which accept the modular PV panel brackets would be snapped into place and bolted to the steel posts. Solar panel technologies are modular and arrive by container trailer semi-trucks. Once the solar PV modules arrive at the Energy Farm, large, 5-foot by 15-foot

boxes would be unloaded, and the PV modules would be unwrapped from corner-protector (Styrofoam and cardboard) packaging which would be reused in another shipment from the manufacturing plant. Crystalline silicon or thin film PV modules would be mounted to steel frames, and the steel frames would then be attached to the brackets. The brackets would then be bolted to the racks. Finally, modules would be plugged together in-series to form continuous strings which are spliced together and are connected to the inverter.

(d) Ancillary Facilities

The O&M building located within the Energy Farm would be a pre-engineered steel building utilizing structural steel supports bolted onto structural mat foundations, which consist of reinforced concrete pads typically installed at or just below grade. Construction of the O&M building would begin with grading of the slab-on-grade foundation, followed by the pouring of the foundation and attachments for structural steel supports.

(2) Gen-Tie Line

The installation of the subsurface Gen-Tie Line would meet or exceed standard industry practices and entails the following major activities: surveying, materials delivery and hauling, excavation for trenches and vaults, duct placement and concrete forming within the trench excavation, concrete placement in the trench, placement of pre-cast concrete vaults within the excavations, restoration of the ground surface, cable pulling, cable splicing, cable terminating, and testing/commissioning.

The construction contractor would determine the overall plan to construct the new 230-kV underground transmission line which would include a specific sequence of events, a complete list of equipment necessary to complete the installation of the collection system, the locations of staging areas, laydown yards, temporary construction zones, and a timeline for all activities. The following discussion describes a typical construction plan for a transmission line project of this scope and minimal deviation from this plan is anticipated.

Design specifications for the Gen-Tie Line indicate the line would follow typical underground transmission line construction practices. As such, the underground cable would be installed in PVC conduits buried approximately 5 to 6 feet below existing grade. At approximately 2,000-foot intervals along the route, the conduits would enter a below-grade vault that is approximately 10 feet wide, 20 feet long, and 10 feet tall. The high-voltage cables would be spliced inside the vaults. Access to the vaults would be accomplished via round, steel access covers installed at existing grade.

The trench would likely be excavated in sections determined by field conditions, such as existing roadways, driveways, etc. Once the conduits are placed into the

excavation and properly restrained, the duct work would be encased in concrete to protect the conduits from mechanical damage, and the trench would be backfilled to within 12 inches of existing grade with a concrete designed specifically for heat dissipation from the cables. Native surface material would be used to backfill the top 12 inches of the trench to return the excavated area to original conditions. Where the trench crosses roadways or existing driveways the surface would be returned to the conditions found prior to excavation with asphalt, road-base, or gravel as appropriate. Native soils would be used to backfill and compact around the vault with the surface restored to match prior conditions. Total grading for the 4.8-mile connection to the SCE Antelope Valley Substation is estimated at 27,300 cubic-yards, with 9,400 cubic-yards of excess material to be transported to the Energy Farm site, where it would be incorporated into grading activities. Grading for the 1.5-mile LADWP tie-in is estimated at 8,500 total cubic-yards, including 3,000 cubic-yards to be transported to the Energy Farm site.

Vault installation would require an excavation approximately 75 feet long and 40 feet wide to achieve the depth required for each vault. The vaults are pre-cast concrete consisting of a bottom section, placed and leveled first, and a top section placed last to complete the enclosure. A work area is required at each vault location for construction of approximately 40 feet wide and 200 feet long. If this could obstruct traffic, the area can be confined to a single traffic lane on Avenue J. In general, these areas require no grading or clearing except on sloped terrain where minor grading and clearing may be necessary.

A general material storage and a receiving yard would likely be located at the Energy Farm. The contractor would be required to transfer materials from the receiving/storage yard to the temporary lay-down yard as required on a site-by-site basis.

Final cleanup and land restoration would occur immediately following construction and energization. Waste construction materials (e.g., strapping, cardboard boxes, crates) would be removed from each work site daily or when each site is vacated and recycled or disposed of at approved facilities.

Because construction would require excavation along the entire alignment, it would be necessary to remove vegetation that has grown within the right-of-way. Native top-soil would be preserved and re-used to restore the excavated area after the PVC conduits and vaults are installed. Where private landowners allow temporary lay-down yards on their property, the area impacted would be restored to its previous condition by the contractor. All erosion control measures existing on private property or in the road right-of-way would be maintained during construction and would be continually monitored to ensure proper operation.

Construction of the optional LADWP switchyard would involve similar equipment and a similar process as the Project's substation. This would allow for the procurement of major materials at the same time for both the switchyard and the substation. Using the same hardware and equipment would also help streamline material procurement and minimize any overages/shortages during construction.

b. Construction Schedule

Construction of the Project, from site preparation and grading to commercial operation, is planned to take up to 18 months, with construction anticipated to begin during the fourth quarter of 2013 and finish between the fourth quarter of 2014 and the second quarter of 2015. This schedule is conceptual and subject to change, including potential acceleration, depending on conditions within the regional energy markets, timing of project approvals, financing, availability of required materials and equipment, etc.

Typically, the interconnect switchyard needs to be installed prior to the completion of the generation facility mainly to back-feed power to the generation facility for testing and plant startup. The duration of the switchyard construction would be within the same timeframe as the Project's substation. Typical switchyard construction times vary from 12 to 16 months including the procurement of the high-voltage equipment. Bringing the newly constructed switchyard into operation would be scheduled based upon the availability of the transmission line being looped into the switchyard, as determined by LADWP.

Construction of the SCE cable riser and supporting structure would be completed in approximately five to six weeks. Just prior to energization, the jumper conductors are installed, which could require additional access to the riser structure for a period of approximately four hours.

c. Construction Workers, Hours and Equipment Operation

The on-site workforce would consist of laborers, electricians, machine operators, supervisory personnel, support personnel, and construction management and safety personnel. Construction would generally occur during daylight hours from 7:00 A.M. to 8:00 P.M., Monday through Friday. Weekend and additional non-daylight hours may be necessary to make up schedule deficiencies or to complete critical construction activities. Any nighttime construction activities would be conducted in accordance the provisions set forth in Los Angeles County Code Section 12.08.440, which establishes regulations for construction noise control, including maximum noise levels for both day time and night time construction activities.

Project construction would start with the Project contractor mobilizing and developing the temporary construction facilities, staging, and laydown areas within the Energy Farm. The on-site assembly and construction work force is expected to reach a peak of approximately 330 construction workers at any one time, working simultaneously on solar and wind components, as well as the substation and operations/maintenance facilities. Carpooling programs will be developed to minimize construction crew traffic. Wind energy project components would be assembled using a variety of heavy equipment including cranes to position turbine components, flatbed boom trucks to haul and unload materials, rigging trucks to haul tools, equipment to position blades, mechanic trucks to service and repair equipment, D-8 and D-9 bulldozers to blade access roads, excavators to help with grading and earth moving, small mobile cranes to aid with loading and unloading of equipment, heavy transports for hauling structural materials (e.g., turbine sections, blades, etc.). Solar energy components would utilize less heavy equipment except during the grading stage, but would still employ mowers for vegetation removal, skip loaders, bulldozers and dump trucks for grading.

Construction activities would be sequenced over the construction period so that only a portion of the Energy Farm would be under construction at any given time. It is currently expected that wind turbine construction would begin in the north portion of the Site and transition to the south and east. The solar farm construction would then proceed only in the Northern Energy Farm, soon after the wind turbines are completed in that area. The Gen-Tie Line would be constructed during a period of approximately four months, in tandem with energy farm construction, and utilize excavators, small cranes and bulldozers.

d. Erosion and Sediment Control Measures

The Project would include erosion control measures such as revegetation and restoration of habitat to proactively address potential environmental effects associated with Project construction. Project construction would include culverts and other erosion control devices, in accordance with regulatory standards for any displaced or unbalanced cut-and-fill. The Applicant would also re-plant any vegetation removed during construction in temporary access areas (i.e., along the subsurface electrical collection system trenches and access road shoulders). The Applicant would also re-plant to stabilize slopes, etc. where necessary.

8. Project Operation and Maintenance

a. Energy Farm

During Project operations approximately 15 people would be employed at the operations and maintenance building during normal business hours, and between two and five people would be on-call nearby the site 24 hours per day, seven days a week.

Maintenance of the wind turbines would require approximately 15 people, including turbine operators, mechanics, electricians, and construction/maintenance crew. Turbines require scheduled maintenance approximately two times per year per turbine. Every turbine requires multiple multi-day mechanical checks per year. These checks include stress tests, monitoring, lubrication of the gear box, and checks and maintenance of blade damage. Every component of the turbine would be inspected twice a year typically, per the instructions in the warranty. The turbines would be maintained according to the strict standards set forth in the terms and conditions of the turbine supply agreement. Light-duty pick-up trucks would be utilized during the operations and maintenance period for the transport of crews to-and-from the turbines. If blades, nacelles, and hubs require more than routine maintenance and maintenance checks, a crane may be deployed to the Project Site to lay the blades and nacelles on the ground.

Maintenance of the solar PV modules would consist of equipment inspection and replacement and semi-annual panel washing. Maintenance would be performed during daylight hours, when possible, and the plant operators would work nine-hour shifts. Weekend and night shifts may be required, depending on the maintenance requirements.

(1) Water Use, Wastewater, and Stormwater

Water would be required by the facility for domestic use and for maintenance purposes. Water demands would be met with local groundwater pumped from existing on-site water wells. The existing well within Healy Farms is over 1,000 feet in depth, with an electrically powered pump to bring the water to the surface. This well has provided water for the entire range of farm activities, including irrigation of on-site hay fields, for many years. Water from the well is expected to provide the water needed for construction as well as operations of the Project. A 70,000-gallon water storage tank would be built near this well, to provide a ready water supply to support long-term operations and maintenance activities such as solar panel washing.

At this time, it is planned to supply the water needs of the O&M building from the existing deep well within the horse farm area, via truck delivery. If this is not viable, a well could be drilled near the O&M building. Total water demand for this facility is estimated at

approximately 100 gallons/day/employee. A 56,000-gallon water storage tank would be built near the O & M building, to provide water for domestic water demand within the building and as water storage to support fire-fighting activities, should any occur.

The solar modules would be washed approximately two times per year, involving several arrays at a time, starting approximately six months after installation. The annual water usage for this purpose would be roughly 250,000 gallons, or approximately 0.8 acre-feet per year. The modules would be washed using non-soapy water disbursed by a power washer. Wash water would be obtained from the existing on-site well. Training and education for employees would be provided in order to ensure the best practice for maintenance of the solar modules. The runoff from the washing of the solar modules would fall to the ground and evaporate or be absorbed into the immediate ground in the arid climate of the Antelope Valley.

The wastewater generation (e.g., sewage) at the Energy Farm is anticipated to be minimal. An on-site private sewage disposal system (i.e., septic tank and leach field system) would accommodate the limited amount of waste generated at the O&M building. There are no known constraints regarding the proposed septic system, as groundwater on the property, except for limited locations of perched groundwater, is known to be approximately 1,000 feet below ground surface.

(2) Fire Protection

The southern portion of the Northern Energy Farm and all of the Southern Energy Farm are located in a State-designated High Fire Hazard Severity Zone. A strip of land along the south side of Lancaster Road, just east of the Healy Farms complex is within a Moderate Fire Hazard Severity Zone. As such, a fuel modification plan would be prepared to comply with Los Angeles County Fire Department design standards and regulations, to minimize the risks associated with wildfires. The Project's fuel modification plan would include non-flammable vegetation management zones within and around the solar arrays, substation and operations and maintenance facilities and other areas, as may be required. Additional requirements pertaining to the removal of brush and dead plant materials, removal of non-native plant species, and periodic maintenance of the vegetation management zones (e.g., with sheep grazing or gasoline-powered mowers) would be included within the fuel modification plan. The fuel modification plan would be submitted to the Los Angeles County Fire Department—Forestry Division for approval prior to the issuance of construction permits.

The O&M building would comply with Los Angeles County fire protection requirements and with National Fire Protection Association (NFPA) 1142 Standard for rural fire protection requirements for a non-combustible building with enhanced fire extinguishing

equipment. Fire protection features proposed within 100 feet of the building would include a 28-foot by 12-foot water storage tank with a capacity of 56,000 gallons, a water well, a duplex fire pump assembly, and two fire hydrants, as well as the 23 miles of new roads which would provide added access across the site for fighting potential fires. The building would also be sprinklered per County building code requirements.

(3) Site Drainage

The Site is traversed by three major ephemeral drainages: Broad Canyon Wash traversing the northern portion in a northeastern direction and Myrick Canyon drainage in the eastern edge, and Willow Springs Canyon, along the southeastern edge. Myrick Canyon connects to a freshwater emergent wetland located just outside of the southeastern portion of the Site. Development associated with the Project would be located outside of flood hazard areas associated with these drainage areas. A number of smaller drainage features occur throughout the Site and along the Gen-Tie Line corridor.

Drainage improvements for the Energy Farm are intended to be discrete and would mimic the existing surface drainage features and on-site characteristics. All surface flows would be detained for small storm events and would be released into existing flow patterns pursuant to established County regulations. Typical drainage improvements would include linear earthen swale and linear earthen basin facilities placed both down gradient from developed pad areas and adjacent to the proposed road improvements within the Energy Farm. Drainage improvements would also include shallow pipe culvert features to allow surface water to pass under the new access roads, as needed, to ensure proper site drainage. Based on preliminary analysis, the Energy Farm area of approximately 3,708 acres would require some 51± acres of dedicated storage/treatment basin areas (or less than 1.5 percent of overall Energy Farm area). No storm drains lines are required for the Project.

The Project's drainage system would be designed to ensure that post-development stormwater run-on and run-off management metrics would not exceed the pre-Project's drainage conditions. The Project would increase the impervious cover within the Energy Farm due to the placement of wind turbine pad areas, solar arrays, the O&M building, the Project's substation, and internal access roads. The increase in the Site's collective impervious cover would be addressed through the employment of Standard Urban Stormwater Mitigation Plan (SUMSP) and Low Impact Development (LID) Best Management Practices (BMPs), including vegetative strips and earthen storm water linear detention basin features placed down gradient from the proposed on-site gravel treated areas.

Since the Project would disturb 1 acre or more of soil, a General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ would be obtained. The Construction General Permit would require the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that lists the Best Management Practices that would be used to prevent stormwater runoff from construction areas. The Construction General Permit would contain a visual monitoring program, a chemical monitoring program for “non-visible” pollutants, and a sediment monitoring plan, if the site is found to discharge to a water body listed on the 303(d) list for sediment. Such a discharge is not anticipated for this project.

The California Aqueduct, a concrete canal water conveyance system that is part of the State Water Project, runs along the southwestern edge of the Site. The Site is down gradient from the Aqueduct and all drainage (including storm water runoff) from the Energy Farm would be directed away from the California Aqueduct.

(4) Solid Waste Disposal

Operations generate minimal wastes, including some nonhazardous solid waste, refuse from workers on the site, rags, scrap metal, packing materials, empty containers, and other miscellaneous wastes. Waste materials will be recycled to the extent practical. Except for the mineral oil contained within transformers at the Project substation, all solid waste, along with small amounts of oil, lubricants, and degreasers, would be stored in proper containers within the O&M building and handled per regulations required by Los Angeles County and federal standards.

Construction waste recycling will be implemented. Cable spools would be reused, and, when possible, materials, such as shipping containers, would be reused or recycled. Blades arrive in blade racks which would be returned to the manufacturer and reused. Miscellaneous wooden dunnage would be reused or recycled.

A general employee health and safety plan for workers and the environment would require material safety data sheets to be made available in order to ensure proper safety procedures for handling and storage of hazardous materials.

(5) Electrical System

Power for the ancillary facilities (i.e., Project substation, operation & maintenance building, etc.) and other uses, such as lighting and security, would either be provided by a connection to the electrical grid or from the Project's electrical generation. The O&M building would be connected to the local SCE distribution system that serves Healy Farms; however, the Project would draw no net energy from the grid. The O&M building would

require approximately 200 ampere (amp) during operation. During construction, a temporary 400 amp electrical service would be installed.

b. Gen-Tie Line

Maintenance access to vault locations is expected to occur from within the limits of Avenue J right-of-way, with no additional permanent roads to be constructed. Although maintenance on a typical underground transmission line is rarely required, most maintenance efforts would require large equipment to perform the necessary tasks. Should this occur, short periods of time should be anticipated during which traffic would be controlled by the use of on-site flagging for the safety of the public and the maintenance crews working on the transmission line.

9. Entitlements and Discretionary Actions

The Project requires the issuance of a CUP from the County of Los Angeles, the CEQA lead agency, for construction of the proposed 300-MW renewable energy project in an agricultural zone, total grading (cut and fill) of approximately 4,145,200 million cubic-yards of soil (evenly balanced between cut and fill), and development within a County designated Significant Ecological Area (SEA).

The Project requires the issuance of a CUP from the City of Lancaster, as a CEQA Responsible Agency, for the construction of the Gen-Tie Line that runs from the Project Site, through small portions of land designated as rural residential (RR-2.5) and urban residential (UR), into the existing Antelope Valley substation located within Lancaster's jurisdictional limits.

Other permits and approvals that are anticipated from federal, state, or local agencies are listed in Table 6 on page 53.

Table 6
Agency Roles and Potential Permit/Approvals

Agency	Permit/Approval/Coordination Role
Federal Agencies	
Environmental Protection Agency	Section 404 Clean Water Act Review
U.S. Fish and Wildlife Service	Federal Endangered Species Act Section 7 consultation and incidental take authorization and Section 10 incidental take permit
Federal Aviation Administration	Notice of Proposed Construction (Form 7461-1) Hazard Determination; Approval of Lighting Plan
Department of Defense/ Homeland Security	Consultation Regarding Military Air Space
Other Federal Agencies	Other actions that may be required to implement the Project.
State Agencies	
Antelope Valley Air Quality Management District	Comply with requirements of SCAQMD Rule 403 as a large operation.
Regional Water Quality Control Board	Porter Cologne Water Quality Act, Clean Water Act, National Pollutant Discharge Elimination System Permit, Water Quality Certification, Discharges to Surface Water, Regional General Permits, Report of Waste Discharge (ROWD)/Waste Discharge Requirements (WDR)
State Water Quality Control Board	Statewide General Permit: Water Quality Order 99-08-DWQ: General Permit for Storm Water Discharges Associated with Construction Activity
California Department of Fish and Game	Section 1600, Streambed Alteration Agreement; State Endangered Species Consultation Incidental take permit/authorization
California Public Utility Commission	Interconnect Approval
California Department of Transportation	Encroachment of Right-of-Way; Transportation Permits for Hauling Oversized Loads
Other State Agencies	Other actions that may be required to implement the Project.
Local Agencies	
County of Los Angeles	CEQA Review
	Conditional Use Permit for construction in an agricultural zone and for on-site grading (cut and fill) of approximately 4,100,000 cubic yards of soil; and for development within an SEA
	Grading Permit, Building Permit
	County Road Encroachment Permit; Transportation Permits for Hauling Oversized Loads
City of Lancaster	CEQA Review and conditional use permit; Grading Permit and Building Permit.
Other Local Agencies	Other actions that may be required to implement the Project.
<hr/> <i>Source: Matrix Environmental, 2011.</i>	

Environmental Checklist Form (Initial Study)
County of Los Angeles, Department of Regional Planning



Project title: “Wildflower Green Energy Farm”/R2010-00256-(5), Conditional Use Permit No. 201000121, Environmental Assessment No. 201000063

Project location: 16700 Lancaster Rd. and 47031 167th St., Lancaster, CA 93536
APN: See Figure 2 in attached Project Description *Thomas Guide:* _____ *USGS Quad:* Lake Hughes/Fairmont Butte/Del Sur

Gross Acreage: 4,092 ac. (3,708 ac. Energy Farm + 384 ac. Gen-Tie Line Corridor)

Description of project: Antelope Power, LLC (the “Applicant”) is proposing to construct, own, and operate the Wildflower Green Energy Farm (the “Project”) that includes: (1) a solar/wind energy facility with a generating capacity of up to 300 megawatts (MW) (the “Energy Farm”); and (2) an underground 230-kilovolt (kV) gentie line (the “Gen-Tie Line”) that would connect the Energy Farm either to Southern California Edison’s (“SCE”) existing Antelope Valley Substation in the City of Lancaster (a distance of 4.8 miles), or to Los Angeles Department of Water and Power’s (“LADWP”) Barren Ridge–Rinaldi renewable transmission line (a distance of 1.5 miles). For purposes of environmental impact analysis, a Gen-Tie Line “Corridor” has been defined, extending approximately one-eighth mile on both sides of Avenue J, from the southeastern corner of the Energy Farm site, to the Antelope Valley Substation. The entire geographic area in which the Energy Farm and Gen-Tie Line corridor would be located are referred to collectively as the “Site.”

The Energy Farm is comprised of two parts: a 2,116-acre “Northern Energy Farm” containing all of the solar arrays and approximately two-thirds of the wind turbines, and a 1,592-acre “Southern Energy Farm” containing the remaining one-third of the wind turbines. The geographic area over which these two Project components would occur is referred to as “the Energy Farm Site.” The Project also includes two voluntary conservation areas within the Energy Farm, to protect habitat and provide buffers adjacent to the Fairmont and Antelope Buttes Significant Ecological Area (the “SEA”) and the Antelope Valley California Poppy State Natural Reserve (the “Poppy Reserve”). Other notable features within the Energy Farm are extensive open space/habitat management areas, three wildlife migration corridors, and

pedestrian/equestrian trails to provide public access through the Energy Farm with scenic viewing opportunities of the Poppy Reserve, the SEA and the more distant mountains.

The purpose of the Project is to provide utility companies with electricity generated from clean renewable wind and solar technologies. The Project seeks to optimize the renewable energy generation potential of the Site, while minimizing potential adverse environmental effects. The Applicant would implement the Energy Farm through a development plan that harnesses the wind and solar resources of the Site, with a combined output of up to 300 MW of renewable/clean energy. The Applicant has prepared a plan that sets forth a proposed number and configuration of wind turbines and solar panels based on current technology and knowledge of the Site's localized topographic features and meteorological resources. Nonetheless, renewable energy technology is undergoing rapid advancements and the Applicant is collecting meteorological data, conducting geotechnical analysis and other technical studies, and these may necessitate minor adjustments in the final siting of the on-site wind turbines and solar panels. In addition to the proposed renewable energy generating facilities, Project support facilities proposed include an operations and maintenance building with a water storage tank and a septic tank/leachfield wastewater disposal system, a surface parking lot, a temporary lay down yard, access roads, an electrical substation, and a second water storage tank for semi-annual solar panel washing.

The Applicant is requesting a Conditional Use Permit (CUP) to authorize grading for the Energy Farm and Gen-tie Line of up to 4,145,200 cubic-yards (combined cut and fill quantity), to allow development of a renewable energy farm within an A-2-5 (Heavy Agricultural) zone; and to allow development within the Fairmont Buttes Significant Ecological Area (SEA No. 57).

Development Area: Based on the Project's siting criteria, the Energy Farm would be constructed within an overall maximum development envelope of 2,350 gross acres; this plan provides some flexibility for adjusting final locations of solar and wind improvements, based on micrositing factors. Total construction disturbance would actually affect approximately 970 acres, including 870 acres in the Northern Energy Farm and 100 acres in the Southern Energy Farm. Construction of the Gen-Tie Line would occur within a 20-foot-wide easement area, totaling 12.4 acres with an interconnection to the SCE Antelope Valley Substation or 3.4 acres with an interconnection to the LADWP Barren Ridge-Rinaldi renewable transmission line.

General plan designation: R (Non-Urban), 0.2 dwelling units/acre (du/ac)

Community/Areawide Plan designation: Antelope Valley Area Plan: N1 (Non-Urban 1), 0.5 du/ac

Zoning: A-2-5 (Heavy Agricultural—Five Acre Minimum Required Lot Area)

Surrounding land uses and setting: The Project is located within the Fairmont area of the unincorporated Antelope Valley in Los Angeles County, approximately 1 mile south of Avenue D (State Route 138) and 3.3 miles west of the western edge of the City of Lancaster, California. Site topography varies, with the lowest elevation being approximately 2,700 feet above mean sea level (msl) located near Broad Canyon in the northern periphery, and the highest elevation being approximately 2,900 feet above msl located near the California Aqueduct in the southwestern portion of the Site. The Southern Energy Farm consists of moderately sloping plateaus from south to north with limited canyons. The Northern Energy Farm consists of moderately sloping plateaus from north to south. Elevations along the Gen-tie Line Corridor range from approximately 2,760 feet above msl at the southeast corner of the Site, to 2,460 feet above msl at the east end near Southern California Edison's existing Antelope Valley Substation. The landscape within the Site consists mainly of alfalfa grasses (planted as a crop), desert grass, and sagebrush scrub.

Since the 1950s, approximately 2,200 acres concentrated in the area of the Northern Energy Farm have been utilized for ranching activities including horse breeding, boarding and training, and related farming of alfalfa hay fields. The developed part of the ranch, called Healy Farms, is concentrated southeast of the intersection of Lancaster Road and 170th Street West. It consists of: (1) one single-family home, two trailers, and a single-family residence north of the Healy Ranch; (2) horses and associated grazing areas, which are assumed to have been previously graded; (3) a horse barn with an apartment; (4) a shop to provide limited maintenance for farm equipment, as well as the storage of equipment and materials for construction, operation, and maintenance; (5) two diesel and gasoline aboveground fuel tanks (ASTs) to fuel farming vehicles and equipment; and (6) fields used for hay production. Fallow alfalfa fields, cattle grazing, dry washes, scrubland, two residential sites and a hunting club occur in the Southern Energy Farm. Land uses within and surrounding the Gen-Tie Line corridor consist of undeveloped grazing land, Avenue J (a two-lane road), crossings by two high-voltage transmission line corridors, and three single family residences just west of the SCE Substation.

A majority of the surrounding lands are unoccupied agricultural and grazing lands. The nearest residential communities are Fairmont, approximately 1 mile to the west, Antelope Acres, located approximately 5.2 miles to the east/northeast, and Neenach, located approximately 8.7 miles to the northwest, along the north side of State Highway 138. County Significant Ecological Area (SEA) 57 is located partially within and immediately east of the northern part of the Northern Energy Farm area. Approximately 475.8 acres of this SEA occurs on site. To the northeast are the Poppy Reserve, the Antelope and Fairmont Buttes, with residential development located further to the east. To the south are the Angeles National Forest and lands administered by the Bureau of Land Management (BLM). The LADWP operates the Fairmont Reservoir, a water retention facility, located southwest of the Site. This reservoir collects water from the Eastern Sierra Mountains via the Los Angeles Aqueduct before the water enters an intake below the reservoir for the Elizabeth Lake Tunnel. Land to the west is primarily undeveloped, with several residences scattered across large lots between 180th and 190th Streets. Scattered residences are visible from the western border of the Energy Farm Site; however, most residences are not visible due to distance and topography.

Adjacent land uses consist of low-density rural residential and related light agricultural activities, as well as a church, undeveloped grazing lands, and open space areas, including the Poppy Reserve. The Poppy Reserve lands are adjacent to portions of the Northern and Southern Energy Farm sites. Two homes are located adjacent to the southwestern boundary of the Energy Farm Site, adjacent to the California Aqueduct. Between the Northern and Southern Energy Farms there is one residence within a complex maintained by the Leona Valley Hunt Club (also known as the Antelope Valley Sportsman’s Club) and one residence located north of the Leona Valley Hunt Club. There is also one residence located due west of the Healy Farms, on the south side of Lancaster Road, and three other homes north of that road, all of which are accessed from Lancaster Road outside of the Site. One church property, the Church at Fairmont, located at Lancaster Road and 160th Street, is surrounded by the Northern Energy Farm area. The California Aqueduct, which is part of the State Water Project, runs along the southwestern edge of the Northern Energy Farm site and along the entire western edge of the Southern Energy Farm site.

Major projects in the area (Expanded discussion of projects in the area will be discussed in the EIR):

<i>Project/Case No.</i>	<i>Description and Status</i>
R2009-02089	Alpine Solar Project/NRG—92 MW/800 ac Approved; 35 ac addition approved.

R2009-02239	AV Solar Ranch One Project—230 MW/2300 ac—Approved
SCH 2007081156	Tehachapi Renewable Transmission Project—CPUC approved December 17, 2009, Supplemental Draft Environmental Impact Statement (EIS underway)
R2011-0377	Antelope Solar Farm/FRV—20 MW/320 ac—early environmental review
R2011-00410	Ruby Solar/Ruby Solar LLC—20 MW/160 ac—early environmental review
R2011-00408	Blue SkyWind Energy Project/NextEra—225 MW/7,500 ac—early environmental review
R2010-00911	Recurrent—Antelope Solar 1/Recurrent Energy—10 MW/111 ac—early environmental review
R2008-00878	Recurrent—Antelope Solar 2/Recurrent Energy—10 MW/80 ac—early environmental review
R2010-00808	Antelope Valley Solar/Renewable Resources Group—650 MW/5,175 ac—Approved October 19, 2011.

Reviewing Agencies:

Responsible Agencies

- None
- Regional Water Quality Control Board:
 - Los Angeles Region
 - Lahontan Region
- Coastal Commission
- Army Corps of Engineers
- U.S. Fish & Wildlife
- Caltrans

Special Reviewing Agencies

- None
- Santa Monica Mtns. Conservancy
- National Parks
- National Forest
- Edwards Air Force Base
- Resource Conservation District of Santa Monica Mtns. Area
- City of Lancaster, City of Palmdale
- Kern County, Ventura County
- Antelope Valley AQMD
- DTSC, DOGGR
- NAHC, CUSF, CHP
- Antelope Valley Conservancy
- California Dept. of Conservation
- SCE, LADWP

Regional Significance

- None
- SCAG Criteria
- Air Quality
- Water Resources
- Santa Monica Mtns. Area

Trustee Agencies

- None
- State Fish and Game

- State Parks

- CA DHS, DWR, SWRCB
- FAA

County Agencies

- Subdivision Committee
- DPW: *GMED; Traffic & Lighting; Environmental Programs; Land Development (NPDES review; drainage & grading, water supply); Watershed Management; Flood Maintenance; Transportation Planning; Waterworks & Sewer*
- Sheriff, SEATAC
- Sanitation Districts
- Parks and Recreation
- Fire Department (+ Hazardous Materials Division)
- Public Health: Environmental Hygiene, Land Use Program, Environmental Health

Public agency approvals which are or may be required:

AGENCY NAME	PERMIT/APPROVAL/COORDINATION ROLE
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Federal Agencies

Environmental Protection Agency	Section 404 Clean Water Act Review
U.S. Fish and Wildlife Service	Federal Endangered Species Act Section 7 consultation and incidental take authorization and Section 10 incidental take permit
Federal Aviation Administration	Notice of Proposed Construction (Form 7461-1) Hazard Determination; Approval of Lighting Plan
Department of Defense/Homeland Security	Consultation Regarding Military Air Space
Other Federal Agencies	Other actions that may be required to implement the Project.

State Agencies

Antelope Valley Air Quality Management District	Comply with requirements of SCAQMD Rule 403 as a large operation.
Regional Water Quality Control Board	Porter Cologne Water Quality Act, Clean Water Act, National Pollutant Discharge Elimination System Permit; Water Quality Certification, Discharges to Surface Water, Regional General Permits, Report of Waste Discharge (ROWD)/Waste Discharge Requirements (WDR)
State Water Quality Control Board	Statewide General Permit: Water Quality Order 99-08-DWQ: General Permit for Storm Water Discharges Associated with Construction Activity
California Department of Fish and Game	Section 1600, Streambed Alteration Agreement; State Endangered Species Consultation Incidental take permit/authorization
California Public Utility Commission	Interconnect Approval
California Department of Transportation	Encroachment of Right-of-Way; Transportation Permits for Hauling Oversized Loads
Other State Agencies	Other actions that may be required to implement the Project.

Local Agencies

County of Los Angeles	CEQA Review
	Conditional Use Permit for construction in an agricultural zone; for grading (cut and fill) of approximately 4,145,200 cubic yards of soil; and for development within an SEA
	Grading Permit, Building Permit
	County Road Encroachment Permit; Transportation Permits for Hauling Oversized Loads
City of Lancaster	CEQA Review (Responsible Agency), Conditional Use Permit, for construction of portion of underground transmission line.
Other Local Agencies	Other actions that may be required to implement the Project.

Lead agency name and address:

County of Los Angeles
Attn: Department of Regional Planning
320 West Temple Street
Los Angeles, CA 90012

Project sponsor's name and address:

Antelope Power, LLC

Contact person and phone number: Anthony Curzi, Planner, Zoning Permits—North Section
(213) 974-6461

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

IMPACT ANALYSIS SUMMARY MATRIX		No Impact				<i>Potential Concern</i>
		Less than Significant Impact				
		Less than Significant Impact w/ Project Mitigation			Potentially Significant Impact	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Environmental Factor	Pg.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1. Aesthetics	12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Wind turbines and/or solar array fields would be visible from nearby public trails at the California Poppy Reserve and from the Los Angeles Backbone Trail System; new night lighting sources</i>
2. Agriculture/Forest	14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Site is zoned for agricultural uses; presence of prime and unique farmland</i>
3. Air Quality	16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Construction exhaust emissions and fugitive dust; limited operational emissions, avoids emissions from traditional thermal energy plants</i>
4. Biological Resources	18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Development within an SEA; natural drainage modification; sensitive plants and wildlife resources</i>
5. Cultural Resources	24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Disturbance of potential presence of buried archaeological and paleontological resources from grading and excavation</i>
6. Energy	27	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Positive regional and statewide effect through expansion of clean, renewable electricity generation sources. On-site energy use minor.</i>
7. Geology/Soils	28	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Fault/Liquefaction zone; potential unstable ground hazards; grading</i>
8. Greenhouse Gas Emissions	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Gaseous construction emissions, minor operational emissions. Positive long-term effects by providing emission-free, renewable electrical power generation at utility scale.</i>
9. Hazards/Hazardous Materials	31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Moderate and High Fire Hazard Severity Zones; use of flammable materials during construction and operation; hazardous solid waste disposal</i>
10. Hydrology/Water Quality	36	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Alterations to surface drainages; potential for increased erosion and runoff; potential water contaminants from construction or developed site runoff; subsurface septic system</i>
11. Land Use/Planning	40	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Conditional Use Permit required to permit Energy Farm in Agricultural Zone and for proposed grading. SEA conformance criteria apply.</i>
12. Mineral Resources	42	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>None</i>
13. Noise	43	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Short-term construction noise; long-term noise associated with wind turbines and periodic maintenance activities</i>
14. Population/Housing	45	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Construction of 23 miles of access roads.</i>
15. Public Services	46	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Limited potential for increase in demand for Fire and Sheriff services</i>
16. Recreation	48	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Public trail linkages (Los Angeles Backbone Trail System); views from Poppy Reserve</i>
17. Transportation/Traffic	49	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Construction and operation traffic; site access</i>
18. Utilities/Services	52	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Solid waste disposal; water supply/ storage for fire suppression</i>
19. Mandatory Findings of Significance	55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<i>Geotechnical, drainage and flood control, wildfire, noise, hydrology and water quality, air quality, biological resources, cultural resources, agriculture, aesthetics, recreation, traffic, fire/ sheriff services, utilities, environmental safety, cumulative impacts</i>

DETERMINATION: (To be completed by the Lead Department.)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



 Signature

11/2/11

 Date



 Signature

11/2/11

 Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources the Lead Department cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the Lead Department has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. (Mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced.)
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA processes, an effect has been adequately analyzed in an earlier EIR or negative declaration. (State CEQA Guidelines § 15063(c)(3)(D).) In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 7) The explanation of each issue should identify: the significance threshold, if any, used to evaluate each question, and; mitigation measures identified, if any, to reduce the impact to less than significance. Sources of thresholds include the County General Plan, other County planning documents, and County ordinances. Some thresholds are unique to geographical locations.
- 8) Climate Change Impacts: When determining whether a project’s impacts are significant, the analysis should consider, when relevant, the effects of future climate change on: 1) worsening hazardous conditions that pose risks to the project’s inhabitants and structures (e.g., floods and wildfires), and 2) worsening the project’s impacts on the environment (e.g., impacts on special status species and public health).

1. AESTHETICS

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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Would the project:

a) Have a substantial adverse effect on a scenic vista, including County-designated scenic resources areas (scenic highways as shown on the Scenic Highway Element, scenic corridors, scenic hillsides, and scenic ridgelines)?

No designated scenic highways or designated scenic corridors are located in the vicinity of the Site; however, the proposed solar panel arrays and wind turbines might be visible from SR-138 which is a second priority scenic route. Development of the Energy Farm could also affect views from and of public recreation areas in the vicinity of the Proposed Project, such as the Antelope Valley California Poppy Reserve. Further analysis of this issue will be included in the EIR.

b) Be visible from or obstruct views from a regional riding or hiking trail?

Planned segments of the Los Angeles County Backbone Trail System run through the Energy Farm site, which is visible from adjacent recreational areas, including trails at the adjacent Antelope Valley California Poppy Reserve Park managed by the California State Parks Department. Further analysis of potential visual impacts from recreational trails will be included in the EIR.

c) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, historic buildings, or undeveloped or undisturbed areas?

The Energy Farm site and underground transmission line corridor consist of both disturbed and natural areas. Scenic features in the vicinity include Fairmont and Antelope Buttes (which incorporate the Antelope Valley California Poppy Reserve) to the north and hillsides and ridgelines to the south, as well as Broad Canyon and Myrick Canyon which traverse through the northern and southern portions of the Proposed Energy Farm. No direct alterations of these natural features are proposed. Flat bottomlands and mesas within the Energy Farm site contain fields of wildflowers, including California Poppy, that are similar to wildflower fields in the adjacent Poppy Reserve. The Project includes 342 acres for conservation and approximately 1,000 acres of open space/wildlife habitat management land that would retain existing open space features. Assessment of visual impacts involving development of wind and solar facilities on portions of the Energy Farm site containing wildflower fields will be included in the EIR.

d) Substantially degrade the existing visual character or quality of the site and its surroundings because of height, bulk, pattern, scale, character, or other features?

The Project would develop a large number of 15-foot-high solar module arrays and up to 50 wind turbine towers, that could reach a height of 328 feet, plus the distance of fully extended blades, which could extend the total height to nearly 500 feet. These facilities would be developed on a mostly underdeveloped site in a rural area and thus would alter the visual character of the Site and possibly its surroundings. Since the Gen-Tie Line would be placed underground, it would not permanently alter the visual character of that part of the project area. Further analysis of construction period and long-term impacts to the existing visual character of the Site and surroundings will be included in the EIR.

e) Create a new source of substantial shadows, light, or glare which would adversely affect day or nighttime views in the area?

Shadow impacts are not anticipated to occur on or off site as a result of Project development. Proposed solar PV panel surfaces are designed to absorb sunlight to enable conversion of that light into electrical power; reflective surfaces that could generate significant daytime glare, therefore, would not be used. The Proposed Project would include minimal amounts of outdoor security lighting, along with wind turbine-mounted lighting that would flash intermittently to warn aircraft; these new light sources might increase nighttime lighting and in the immediate vicinity. Potential impacts associated with proposed outdoor lighting sources will be addressed as part of the EIR.

2. AGRICULTURE/FOREST

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Portions of the Energy Farm site are designated Prime Farmland, Unique Farmland, and Farmland of Local Importance pursuant to the State Farmland Mapping and Monitoring Program. Development of solar and wind energy facilities in these areas, as well as construction of the Gen-Tie Line would preclude farming in these areas. Effects of converting farmland to non-agricultural uses will be evaluated in the EIR.

b) Conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract?

Portions of the Energy Farm site have been used for a variety of agricultural purposes over the last few decades, including grazing, horse breeding/training, and alfalfa farming. The Energy Farm site and most of the Gen-Tie Line are on land zoned A-2-5 (Heavy Agriculture), a classification that provides for renewable energy development as a conditionally permitted use. No part of the Site is under a Williamson Act Contract. The effects of the reduction of the use of land for agricultural activities will be addressed in the EIR.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220 (g)) or timberland zoned Timberland Production (as defined in Public Resources Code § 4526)?

The Site does not contain forest land or timberland zoned for Timberland Production. The Angeles National Forest, the closest forest to the Site is located more than 1 mile south of the Site.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

See preceding response.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

This Project would not directly affect any land outside of the Project limits and since there is no forest land in this area and since this Site is not producing crops or other forms of agriculture that contribute to the agricultural sector of the economy, it would not result in conversion of other agricultural lands or any forest lands. Impacts involving conversion of land designated as Important Farmland by the California Department of Conservation will be evaluated in the EIR, as discussed in the response to item a in this section.

3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the project:				
a) Conflict with or obstruct implementation of applicable air quality plans of the South Coast AQMD (SCAQMD) or the Antelope Valley AQMD?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Site is located in the western Mojave Desert area, where air pollution control is under the jurisdiction of the Antelope Valley Air Quality Management District. Construction activities would contribute additional air pollutant emissions. It is anticipated that any operational emissions that may be generated to support the Project would be outweighed by the emissions reductions realized by the generation of up to 300 MW of clean electrical energy. Further analysis of this impact, with respect to conformance with the Antelope Valley Air Quality Management District regulations, will be conducted as part of an air quality assessment to be included in the EIR.

b) Violate any applicable federal or state air quality standard or contribute substantially to an existing or projected air quality violation (i.e. exceed the State’s criteria for regional significance which is generally (a) 500 dwelling units for residential uses or (b) 40 gross acres, 650,000 square feet of floor area or 1,000 employees for nonresidential uses)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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The Proposed Project meets at least one of the criteria established to be classified as a “regionally significant project” per the definition provided in Section 15206 of the CEQA Guidelines. Project construction could result in localized concentrations of criteria pollutants that may exceed federal or state air quality standards. Construction emissions will be quantified to determine if applicable federal and/or state pollutant standards could be exceeded and to identify measures to mitigate such impacts.

c) Exceed a South Coast AQMD or Antelope Valley AQMD CEQA significance threshold?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Please refer to the earlier response to items a) and b) in this section.

d) Otherwise result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air quality monitoring has determined that this area is in non-attainment for state air quality standards regarding ozone and particulate matter (PM₁₀), and for federal air quality standards for ozone. Construction of the Proposed Project would contribute additional air pollutant emissions, including emissions of criteria pollutants that would contribute to regional ozone and PM₁₀ levels. It is anticipated that any operational emissions that may be generated to support the Project would be outweighed by the emissions reductions realized by the generation of up to 300 MW of clean electrical energy. Further analysis of this impact, with respect to the significance thresholds established by the Antelope Valley Air Quality Management District, will be conducted as part of an air quality assessment to be included in the EIR.

e) Expose sensitive receptors (e.g., schools, hospitals, parks) to substantial pollutant concentrations due to location near a freeway or heavy industrial use?

There are no existing or planned freeways or heavy industrial uses on or near the Site; thus, there is no threat of exposure to significant pollution concentrations from such sources. The limited number of nearby residences could be temporarily exposed to localized concentrations of criteria pollutants generated during Project construction. Operation of the Energy Farm is not anticipated to generate sufficient emissions such that it could result in exposing sensitive receptors to significant pollution levels. However, any potential impacts to sensitive receptors will be analyzed further in the EIR.

f) Create objectionable odors affecting a substantial number of people?

Odors associated with exhaust from construction vehicles and machinery would occur on a temporary and periodic basis, but would not be noticeable beyond the immediate vicinity of the active construction site. No significant odor impacts during construction are anticipated. The completed solar and wind power facilities would not generate atmospheric emissions and would not involve outdoor activities that could generate odors on- or off-site.

4. BIOLOGICAL RESOURCES

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (DFG) or U.S. Fish and Wildlife Service (USFWS)?

The Site is located in the western Antelope Valley. Approximately 475.8 acres of the Energy Farm (12.8 percent of the total site) occur within the Fairmont & Antelope Buttes Significant Ecological Area (SEA) No. 57. The Portal Ridge–Liebre Mountain SEA No. 58 lies adjacent to the Site’s southwestern boundary across the California Aqueduct, and the Joshua Tree Woodland SEA No. 60 is found 2 miles to the northwest. Other open space areas within the region include: the Antelope Valley California Poppy State Natural Reserve (immediately east and southeast of the Northern Energy Farm and north of the Southern Energy Farm), Angeles National Forest (approximately 1 mile southwest), Desert Pines County Wildlife Sanctuary (approximately 2.5 miles west), Arthur B. Ripley Desert State Park (approximately 2.5 miles west), and Ritter Ridge SEA No. 56 (approximately 10 miles southeast).

Between March 2010 and May 2011, a team of biologists surveyed all portions of the Energy Farm site. Field surveys include focused studies for vegetation communities, wetlands and waters, sensitive plants, and wildlife species. Wildlife studies include focused surveys for burrowing owls, eagles and other raptors, nesting birds, migratory birds, bats, and butterflies. Botanical surveys included detailed vegetation surveys following procedures described by the California Native Plant Society for all observed vegetation types on the Energy Farm Site and focused surveys for sensitive plants. (A copy of the completed Biological Constraints Analysis that contains the results of the biological investigations is on file with the Los Angeles County Department of Regional Planning.) The biologists also reviewed recent aerial photos of the Gen-Tie Line corridor to identify basic habitat characteristics for that Project component.

No special status invertebrate, fish, or amphibian species have been observed on the Site. In 2010, an active Swainson’s hawk nest was identified approximately 4 miles northeast of the Energy Farm site along Highway 138. This nest failed in 2010 and was occupied by ravens in 2011. Golden eagles, protected under the federal Bald and Golden Eagle Protection Act and a California fully protected species, have been documented foraging over the Energy Farm site but no suitable nesting habitat is present. Six additional California bird species of special concern were recorded within the Energy Farm site during surveys conducted in 2010 and 2011: American white pelican (migrating high over the site), northern harrier, burrowing owl, loggerhead shrike, tricolored blackbird, and yellow-headed blackbird. Of these, the shrike and burrowing owl are likely to breed on the Energy Farm site and the tricolored blackbird breeds nearby and forages within the Energy Farm Site; the others are likely transients or winter visitors only. Peregrine falcon, a State fully protected species, was observed during fall surveys; however, no suitable nesting habitat is present on the Energy Farm site. Five bird species on the State watch list were also observed as a winter resident or migrant including: Cooper’s hawk, ferruginous hawk, merlin, prairie falcon, and white-faced ibis. No nests or nesting colonies were observed for any of these five species. No federal- or State-listed mammals have been observed or are likely to occur on the Energy Farm or within the Gen-Tie Line corridor.

Data collected by the United States Fish and Wildlife Service (USFWS) from telemetered California condors indicate that the Site and surrounding portions of the Antelope Valley are not used by the California condor for foraging, nesting, breeding, or any diurnal or nocturnal roosts (USFWS 2009). Furthermore, the Site contains no habitats that are known for condor nesting (Snyder and Snyder 2000). There are no historical records of condor use in this area (Willett 1933), and the Site is located approximately 11 miles south from the nearest limits of U.S. Fish and Wildlife Service-designated Critical Habitat for this species.

One of the three vernal pools on-site (2.27 acres) supports a population of spreading navarretia, a federally threatened plant species. Short-joint beavertail cactus, a California Native Plant Society (CNPS) 1B.2 plant, is also found on ridgetops in perennial grasslands and California buckwheat scrub.

The Project limits potential Energy Farm development areas to approximately 23 percent of the entire Energy Farm 3,708 acres. All of the solar arrays, along with two-thirds of the wind turbines, would be located in the Northern Energy Farm, and the remaining one-third of the wind turbines in the Southern Energy Farm. This concept follows the natural topography, limits total grading, and provides additional open space for wildlife migration between the Liebre Portal Ridge to the south and the Poppy Reserve to the north. Project design features include 342 acres of land for conservation, along with approximately 1,000 acres for open space and wildlife/habitat management, and three, 300-foot-wide wildlife migration corridors. The Southern Energy Farm is designed with a minimal development footprint (construction would disturb approximately 100 acres or about 6.3 percent of that 1,592 acres) to reduce direct impacts to plants and wildlife habitat, and to provide open space and habitat linkages to the north and south.

A Biological Constraints Analysis (“BCA”) has been completed and reviewed by the County’s Significant Ecological Area Technical Advisory Committee (“SEATAC”). In addition, a comprehensive Biota Report will be prepared, in accordance with Los Angeles County SEATAC recommendations, to assess the Project’s potential impacts to sensitive plants and wildlife species observed or which have a potential to occur within the Energy Farm and Gen-Tie Line corridor because of suitable habitat conditions will be included in the EIR.

b) Have a substantial adverse effect on sensitive natural communities (e.g., riparian habitat, coastal sage scrub, oak woodlands, non-jurisdictional wetlands) identified in local or regional plans, policies, and regulations DFG or USFWS? These communities include Significant Ecological Areas (SEAs) identified in the General Plan, SEA Buffer Areas, and Sensitive Environmental Resource Areas (SERAs) identified in the Coastal Zone Plan.

Approximately 475.8 acres of the occur within the Fairmont & Antelope Buttes SEA No. 57. Of those 475.8 acres, approximately 26.3 acres (5.5 percent) will be within the development envelope of the Northern Energy Farm. Development of two solar arrays and two wind turbines on approximately 26.3 acres that have been altered by irrigated alfalfa farming, occurs within this SEA. The Portal Ridge–Liebre Mountain SEA No. 58 lies adjacent to the Site’s southwestern boundary across the California Aqueduct, and the Joshua Tree Woodland SEA No. 60 is found 2 miles to the northwest. Other open space areas within the region include: the Antelope Valley California Poppy Reserve (immediately southwest of the Site), Angeles National Forest (approximately 1 mile southwest), Desert Pines County Wildlife Sanctuary (approximately 2.5 miles west), Arthur B. Ripley Desert State Park (approximately 2.5 miles west), and Ritter Ridge SEA No. 56 (approximately 10 miles southeast).

Approximately 1,277.5 acres of the Energy Farm site (30.5 percent) is comprised of non-native annual grasslands and agricultural fields and is actively grazed by cattle. A horse ranch occupies a small area in the west-central portion. These vegetation types and land uses are regionally abundant and do not generally support habitat for special status plant and wildlife species. Native annual grasslands are the most extensive vegetation type on the Energy Farm Site, covering 1,021.1 acres (24.3 percent of the Energy Farm site). Native scrub and shrublands, mostly dominated by rubber rabbitbrush, comprise another 896.1 acres (21.4 percent, of the Energy Farm site) and non-native grasslands an additional 836.1 acres (20.0 percent of the Energy Farm site). Native annual forblands comprise 703.9 acres (16.8 percent) and agriculture comprises 441.4 acres (10.5 percent). Disturbed, developed, native perennial grasslands, non-native forblands, native perennial forblands, non-native trees, and all waters comprise less than 5 percent each. Seven special status plant communities have been identified on the Energy Farm site: purple needlegrass grassland (52.2 acres), desert needlegrass grassland (2.3 acres), one-sided bluegrass grasslands (11.2 acres), oak gooseberry thickets (0.8 acre), narrowleaf goldenbush scrub (2.7 acres), southern willow scrub (3.1 acres), and desert olive patches (0.9 acre). Wildflower fields, a locally important vegetation type covering 703.9 acres, are dominated by California poppy and miniature lupine. A portion of the Energy Farm would encroach into these fields. In addition, there are three vernal pools on the Energy Farm site, totaling 2.38 acres. One vernal pool (2.27 acres) supports a population of spreading navarretia, a federally threatened plant species. Short-joint beavertail cactus, a CNPS 1B.2 plant, is also found on ridgetops in perennial grasslands and California buckwheat scrub. The majority of the vegetation within the Gen-Tie Line corridor is non-native annual grasslands; however, there could also be some annual grasslands, native perennial grasslands, and wildflower fields that will be differentiated based on subsequent field verification.

Three broad washes traverse the northern and southeastern portions of the Site (Broad Canyon, Myrick Canyon and Willow Springs Canyon), and a number of smaller ephemeral washes and drainage channels were observed within the Energy Farm site and Gen-Tie Line corridor. The Project would not encroach into the three larger wash areas; however, some of the smaller drainage courses could be altered by project construction. If these natural drainage features contain the elements that qualify as a "Streambed" under the California Fish and Game Code, impacts to such features would require approval of a Streambed Alteration Agreement by the California Department of Fish and Game (CDFG). Such impacts might affect riparian resources or other sensitive communities. Further analysis of such impacts will be included in an EIR.

The Project limits potential Energy Farm development areas to approximately 23 percent of the entire 3,708 acres. All of the solar arrays, along with two-thirds of the wind turbines, would be located in the Northern Energy Farm, and the remaining one-third of the wind turbines in the Southern Energy Farm. This concept follows the natural topography, limits total grading, and provides additional open space for wildlife migration between the Liebre Portal Ridge to the south and the Poppy Reserve to the north. Project design features include 342 acres of land for conservation, along with approximately 1,000 acres for open space and wildlife/habitat management, and three, 300-foot-wide wildlife migration corridors. The Southern Energy Farm is designed with a minimal development footprint (construction would disturb approximately 100 acres or about 6.3 percent of that 1,592 acres) to reduce direct impacts to plants and wildlife habitat, and to provide open space and habitat linkages to the north and south.

A Biological Constraints Analysis ("BCA") has been completed and approved by the County's Significant Ecological Area Technical Advisory Committee ("SEATAC"). A comprehensive Biota Report will be also prepared, in accordance with Los Angeles County SEATAC recommendations, to assess the Project's potential impacts to sensitive natural communities on and adjacent to the Site and will be included in the EIR.

c) Have a substantial adverse effect on federally protected wetlands (including marshes, vernal pools, and coastal wetlands) or waters of the United States, as defined by § 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?

The Site is mostly flat in the west and north, with the remainder comprised of low rolling hills. Three broad washes traverse the northern and southeastern portions of the Site (Broad Canyon, Myrick Canyon and Willow Springs Canyon), and a number of smaller ephemeral washes and drainage channels occur elsewhere within the Energy Farm site and Gen-Tie Line corridor. Field surveys conducted as part of the Biological Constraints Analysis (“BCA”) determined that none of the drainages within the Energy Farm site are hydrologically connected to Waters of the U.S. and are not under the jurisdiction of the U.S. Army Corps of Engineers (ACOE).

Based on the scarcity of trees and water sources that provide shelter and rehydration, the Site is not likely to provide significant stopover points for migrating songbirds. A total of 3.51 acres of wetlands and 31 waterbodies, comprising 8.26 acres (not including portions of the drainage occupied by wetland areas), were identified within the Energy Farm site, as potentially jurisdictional by the ACOE, the California Department of Fish and Game (CDFG), or the Regional Water Quality Control Board (RWQCB). All wetland and waters features were determined to be isolated and, therefore, likely outside of the jurisdiction of the ACOE; however, CDFG and RWQCB jurisdiction is anticipated. A number of surface drainages occur within the Gen-Tie Line corridor; additional field surveys will be required to determine whether construction of that major Project component could impact federal or state jurisdictional water features and if so, to identify associated permitting/mitigation requirements. This additional research will be included in the EIR.

There are three vernal pools, totaling 2.38 acres, within the Energy Farm site. One vernal pool (2.27 acres) supports a population of spreading navarretia, a federally threatened plant species. Potential impacts to the vernal pool resources and measures to avoid significant impacts will be discussed in the Biota Report to be prepared for the EIR.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The ridges and valleys associated with the Tebachiapi Mountains to the west and northwest provide a primary southwest-northeast wildlife movement corridor of regional significance that bridges the Sierra Nevada and San Gabriel Mountain Ranges. In addition, the broad-front linkage between the San Gabriel Mountains (including Portal Ridge) and the Mojave Desert provide a primary northwest-southeast wildlife corridor running south of the Site. These two corridors may be used by large mammal species moving to and from wintering grounds in the high desert, as well as for summer feeding, denning, and breeding. The Site is not an integral part of either of these primary regional corridor or the secondary linkages associated with these topographic features. There is potential for localized wildlife movement on tertiary corridors between the Energy Farm site and SEA No. 57; however, movement away from these features is constrained by the California Aqueduct just south of the Site, Highway 138 north of the Site, and the general absence of tall vegetation throughout the Antelope Valley. There are no wildlife nurseries on or near the Site.

The Energy Farm site falls entirely within the Antelope Valley (Lancaster) Important Bird Area (IBA) which encompasses the Antelope Valley of the western Mojave Desert in northern Los Angeles County and southern Kern County. The Antelope Valley IBA is experiencing rapid conversion of the wild and agricultural landscape to an urban environment. Within the

IBA, remnant Joshua tree woodlands to the north and east of the Energy Farm site support one of the western-most populations of Le Conte's thrasher (*Toxostoma lecontei*) in the state. The grasslands within the IBA support impressive wintering bird communities, including large number of raptors, large flocks of vesper sparrows (*Poocetes gramineus*), horned larks (*Eremophila alpestris*), mountain bluebirds (*Sialia currucoides*), and mountain plovers (*Charadrius montanus*). Swainson's hawk maintains its southern-most breeding area in the state, mainly in association with the alfalfa fields to the north and east of the Energy Farm site. The IBA falls within the path of a major spring migration route for songbirds, and windbreaks throughout the region host hundreds of vireos, thrushes, and warblers in April and May.

The Project limits potential Energy Farm development areas to approximately 23 percent of the entire Energy Farm's 3,708 acres. All of the solar arrays, along with two-thirds of the wind turbines, would be located in the Northern Energy Farm, and the remaining one-third of the wind turbines in the Southern Energy Farm. This concept follows the natural topography, limits total grading, and provides additional open space for wildlife migration between the Liebre Portal Ridge to the south and the Poppy Reserve to the north. Project design features include 342 acres of land for conservation, along with approximately 1,000 acres for open space and wildlife/habitat management, and three, 300-foot-wide wildlife migration corridors. The Southern Energy Farm is designed with a minimal development footprint (construction would disturb approximately 100 acres or about 6.3 percent of that 1,592 acres) to reduce direct impacts to plants and wildlife habitat, and to provide open space and habitat linkages to the north and south.

Most bird species, including their nests and eggs, are protected under the federal Migratory Bird Treaty Act (MBTA) (1918). Further protection to bird nests, eggs and young, and birds of prey is provided by the California Fish and Game Code. Construction and/or operation of the Proposed Energy Farm could result in impacts to birds or their nests protected by the MBTA, or the abandonment of an active nest by the adult bird. Birds in flight could be injured or killed by wind turbine blades. Potential impacts to birds and bird nests will be evaluated as part of the Biota Report to be prepared as part of the EIR.

e) Convert oak woodlands (as defined by the state, oak woodlands are oak stands with greater than 10% canopy cover with oaks at least 5" inch in diameter measured at 4.5 feet above mean natural grade) or otherwise contain oak or other unique native trees (junipers, Joshuas, etc.)?

Biological surveys conducted as part of the project's Biological Constraints Analysis confirmed that oak trees, stands, or woodlands, as well as other unique native trees such as junipers and Joshuas, do not occur within or near the Energy Farm site or Gen-Tie Line corridor.

f) Conflict with any local policies or ordinances protecting biological resources, including Wildflower Reserve Areas (L.A. County Code, Title 12, Ch. 12.36) and the Los Angeles County Oak Tree Ordinance (L.A. County Code, Title 22, Ch. 22.56, Part 16)?

The State of California’s Antelope Valley California Poppy Reserve is adjacent to the northern and eastern sides of the proposed Energy Farm. This reserve is one of the areas protected by the County’s Wildflower Reserve regulations, set forth in Title 12, Chapter 12.36 of the Los Angeles County Code. These regulations prohibit animal grazing within a wildflower reserve during the main growing seasons. The Project would develop some of the grazing land within the Energy Farm site, but would also allow for the possibility of animal-based vegetation management such as sheep grazing within the solar arrays. The Project would not conflict with the County Code provisions concerning the Poppy reserve. There are no oak trees on the Site; therefore, provisions of the County’s Oak Tree Ordinance do not apply. As discussed in the response to item b), a portion of SEA 57 occurs within the Northern Energy Farm, and approximately 26.3 acres (5.5 percent) of that land, which has been under active cultivation as an irrigated alfalfa field, is within a proposed development envelope. The EIR will address the Project’s impacts to biological values in that SEA, as well as the SEA conformance criteria set forth in the County General Plan and the Antelope Valley Area Plan.

g) Conflict with the provisions of an adopted state, regional, or local habitat conservation plan?

Potential impacts to sensitive biological resources within County SEA’s 57 and 58 and the Poppy Reserve will be assessed in the EIR, as noted in the previous response to item b) in this section.

5. CULTURAL RESOURCES

	<i>Less Than Significant</i>			
<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5?

A preliminary cultural resources investigation was conducted, including a review of records of past surveys for historic resources, a review of records of recorded resources that may occur on or around the Energy Farm site, and field surveys to look for signs of resources that may not have been identified in the past (SRI, July 2010). This research covered approximately 2,300 acres of the Energy Farm development envelope and none of the Gen-Tie Line corridor. Three historical-period resources have been recorded within the 2,300-acre initial survey area: the historic townsite of Fairmont and two historical-period refuse deposits. Some historical-period resources—sites associated with tuff mining related to the construction of the first Los Angeles Aqueduct in the early 20th century—are also located on Fairmont Butte, about one mile east of the Project area.

The site record for the townsite of Fairmont identifies five separate historical-period elements, including a group of several destroyed structures, a school, a tree line, a horse ranch, and an earthen-bermed reservoir. That site record indicates that several buildings were not examined during the recording of the townsite, and it is possible that additional historical-period resources could be present on site. Field surveys identified a historic-period earthen dam and buried pipes that had not been recorded. Project development, as proposed, could potentially impact historic resources, but the scale and significance of such impacts is not currently known.

Shea’s Castle, a 7,000-square-foot stone structure, was built in 1924 as a replica of a medieval Irish castle; it is located on a 512-acre site in the Southern Energy Farm area. Related facilities include a similarly styled stone stable, several outbuildings, and a house. There is also a 3,000-foot dirt runway for small planes (inactive), a dirt track for all terrain vehicle racing and a stone arch dam to hold 7 to 8 acres of storm water runoff. This site includes an artesian well and storage tank, along with electrical infrastructure to supply an all-electrical power system. The Castle site was built for his wife by Richard Peter Shea, a successful real estate developer who made a fortune developing properties in the Hancock Park area of Los Angeles. The Castle site has been associated with entertainment industry celebrities and was used as a backdrop in filming of several movies and television shows. The Proposed Project would not affect the Castle site or any of its structures or other improvements.

There are no structures within the proposed Gen-Tie Line corridor, which follows the alignment of Avenue J, a partially improved road, and the likelihood of uncovering historic resources during excavation for this underground transmission line is considered low. This corridor has not been subject to formal records search or a field survey; therefore, the potential for impacts to significant historic resources in this area cannot be ruled out at this point.

Additional historic research and field surveys will be conducted for the remaining portion of the Energy Farm and Gen-Tie Line corridor as part of the EIR to determine if the Project could result in any impacts to significant historic resources and if so, to identify measures to avoid or mitigate such impacts.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5?

In the initial cultural resources survey as noted above, it was determined that a total of 30 archaeological sites and 11 isolated artifacts have been recorded within a 1-mile radius of the 2,300-acre survey area, none of which are listed in the National Register of Historic Places (NRHP) or as a California Historic Landmark (CHL). Three historical-period resources have been recorded within the Northern Energy Farm area. In addition, a preliminary field survey identified 11 prehistoric and historical-period resources within the Northern Energy Farm that had not been previously recorded. Full documentation and recordation of these sites will be completed and included in the EIR. Further investigations of past archaeological survey records, along with field surveys, will be conducted for the remaining portion of the Energy Farm and the Gen-Tie Line corridor, as part of the EIR.

The Fairmont Butte area is a large and well-known group of prehistoric and historical-period sites that lay on and around Fairmont Butte, which is located adjacent to the eastern edge of the Northern Energy Farm area. A majority (seven sites and one isolate) of the previously recorded sites and isolates (10 sites and one isolate) within the surveyed part of the Energy Farm are associated with the Fairmont Buttes archaeological area and include resources that are prehistoric in age (midden deposits, bedrock milling features, and several sites with enigmatic circular rock alignment). These sites were likely food-processing and habitation areas. Some historical-period resources—sites associated with tuff mining related to the construction of the first Los Angeles Aqueduct in the early 20th century—are also located on Antelope Butte, about 1 mile east of the Project area.

As noted above, the initial cultural resources investigations covered approximately 2,300 acres of the Energy Farm site. To date, a review of cultural resources and potential Native American sacred lands and sites within approximately 1,408 acres of the Energy Farm site and the 384-acre Gen-Tie Line Corridor has not been undertaken. The types of previously recorded sites (if any) that may be located within the Proposed Gen-tie Line Corridor are expected to be similar to those found in the initial survey area. Further investigations of past archaeological survey records, consultation with Native American resources, and archaeological field surveys, will be conducted for the remainder of the Site, as part of the EIR.

The Project would set aside 384 acres as conservation land, along with approximately 1,000 acres for open space and wildlife/habitat management and 3,300-foot wide wildlife corridors. Potential Energy Farm development areas are limited to approximately 23 percent of the entire Energy Farm site. These design features could avoid potential impacts to prehistoric resources. Potential impacts to archaeological resources within the proposed limits of development will be assessed in the EIR.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, or contain rock formations indicating potential paleontological resources?

Most of the Site is situated on flat-lying areas, which are underlain almost entirely by older and younger alluvium. The potential for fossil remains being encountered by earthwork at depths less than five feet below the current ground surface in areas underlain by younger alluvium is considered to be low. At such shallow depths, any remains likely would be too young to be considered fossilized unless contradicted by the definite local occurrence of fossil remains. At depths greater than 5 feet in these areas and at any depth in areas underlain by older alluvium, the potential for fossil remains being encountered by earthwork at the Site is undetermined, because the region is so poorly known with regard to paleontologic resources. Excavation for construction of foundations for solar panels would be approximately 15 feet deep and wind turbines foundations would be excavated 8 to 15 feet deep. These construction activities and possibly other grading for the Project could potentially uncover buried paleontological resources. Further analysis of this issue will be included in the EIR.

d) Disturb any human remains, including those interred outside of formal cemeteries?

The initial Cultural Resources investigations for the 2,300 acres of the Energy Farm site (see response to item a, above), found no evidence of any human burial sites. The remainder of the Energy Farm and the Gen-Tie Line corridor have not been surveyed; therefore, further research to examine those remaining parts of the Site for indications of potential human remains will be conducted as part of the EIR.

6. ENERGY

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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Would the project:

a) Comply with Los Angeles County Green Building Standards?(L.A. County Code Title 22, Ch. 22.52, Part 20 and Title 21, § 21.24.440.)

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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The proposed 16,000-square-foot (sf) operations and maintenance building exceeds the threshold of 10,000 sf that is subject to compliance with the County’s Green Building standards. The entire Project is subject to compliance with other aspects of the County’s Green Building Program, pertaining to low impact drainage controls and water conservation in landscaping. Compliance is anticipated, although design specifications have not been completed. Specific building design, low-impact development, and landscaping/irrigation features that achieve or exceed the County’s standards will be discussed in the EIR.

b) Involve the inefficient use of energy resources (see Appendix F of the CEQA Guidelines)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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The Proposed Project will provide a significant benefit to the region’s energy efficiency through production and transmission of 300 MW annually of clean, renewable electrical power. On-site operations and maintenance facilities will be powered by electricity produced by on-site wind and/or solar sources, and possibly with natural gas trucked in and stored in a tank. There would be no impact due to inefficient use of energy resources.

7. GEOLOGY AND SOILS

	<i>Less Than Significant</i>		<i>Less Than Significant</i>	<i>No Impact</i>
<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>			

Would the project:

a) Be located in an active or potentially active fault zone, Seismic Hazards Zone, or Alquist-Priolo Earthquake Fault Zone, and expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault.

The Site is located in a seismically active region with both active and potentially active faults. An Alquist-Priolo hazard zone crosses the center portion of the Energy Farm site. The San Andreas Fault is located approximately 3 miles south of the Site. Other mapped faults may impact the Site, as well. Further geotechnical investigation and analysis of potential building constraints and related design measures concerning surface fault rupture will be included in the geotechnical report to be prepared as part of the EIR.

ii) Strong seismic ground shaking?

Given this location in a seismically active region and its proximity to the San Andreas Fault, strong seismic ground-shaking at some time in the Project's operating life is something to be considered in the project design. Further analysis of potential ground shaking magnitudes and design measures to prevent significant damage to the proposed energy facilities will be included in the geotechnical report to be prepared as part of the EIR.

iii) Seismic-related ground failure, including liquefaction?

The Background Report for the draft update of the Antelope Valley Area Plan indicates that there are numerous locations within this area that are susceptible to seismically induced liquefaction hazards. A geotechnical investigation and report will be conducted as part of the EIR, which will include evaluation of the surface and subsurface materials, groundwater conditions, and identification of seismic constraints such as liquefaction that may occur on-site.

iv) Landslides?

The Background Report for the draft update of the Antelope Valley Area Plan indicates that earthquake-induced landslides is a seismic hazard that exists throughout many areas of the valley. The steeper portions of the Energy Farm site may be susceptible to landslides, depending on localized soil conditions. The entire Gen-Tie Line corridor is comprised of relatively flat land and is not subject to landslide hazards. A geotechnical investigation and report will be conducted as part of the EIR, which will include an evaluation of the surface and subsurface materials and landslide potential throughout the Energy Farm site. This will support an analysis of proposed wind turbine and solar array locations, relative to potential landslide hazards, and provide a basis to determine the need for design or mitigation measures to prevent significant impacts due to landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Proposed grading would affect approximately 870 acres in the Northern Energy Farm and approximately 100 acres in the Southern Energy Farm, where the existing topsoil would be removed and either returned to where it was excavated or relocated within the site as part of fill material. Additional excavation for the Gen-Tie Line would disturb topsoil and expose ground surfaces to erosion. Grading would expose substantial ground surface areas to potential erosion from wind or storm water and site improvements would alter existing drainage patterns and amounts of runoff. Further analysis of potential erosion impacts due to construction activities and developed site conditions will be included in the EIR.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Please refer to the previous responses to items a) and b) herein. A geotechnical investigation and report will be conducted as part of the EIR to identify areas of known or potential ground instability that represent a hazard or design constraint for the proposed energy production and transmission facilities.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

The occurrence of expansive soils underlying the Site and the scope of any associated mitigation measures will be evaluated as part of the geotechnical study to be prepared and incorporated in the EIR.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Wastewater generated by the existing residence(s) and ranch facilities is discharged into a subsurface septic system on site. Wastewater from the proposed operations and maintenance facilities would be discharged into a new underground septic tank/leach field system. Soil suitability and design parameters for this new system will be addressed in the geotechnical study to be prepared as part of the EIR.

f) Conflict with the Hillside Management Area Ordinance (L.A. County Code, Title 22, § 22.56.215) or hillside design standards in the County General Plan Conservation and Open Space Element?

A number of proposed wind turbines/towers would be located on hillsides of varying steepness. Approximately 15 acres in the proposed development areas occur on land with natural slopes of 25 percent or more; therefore, Project compliance with the provisions of the County's hillside development standards and policies will be discussed in the EIR.

8. GREENHOUSE GAS EMISSIONS

	<i>Less Than Significant</i>			
	<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>

Would the project:

a) Generate greenhouse gas (GhGs) emissions, either directly or indirectly, that may have a significant impact on the environment (i.e., on global climate change)? Normally, the significance of the impacts of a project’s GhG emissions should be evaluated as a cumulative impact rather than a project-specific impact.

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Project development would require grading with large, diesel-powered machinery to prepare suitable sites for wind turbine towers, solar arrays, energy collection lines, operations and maintenance facilities, substation, vehicular access and outdoor storage/activity yards, as well as the Gen-Tie Line. A variety of combustion-engine driven construction machinery and vehicles would be employed throughout the construction phases that would be fueled with gasoline, diesel, and natural gas, all of which generate greenhouse gases within their emissions. Potential levels of GHG emissions during the construction phases will, therefore, be quantified and assessed in the EIR. Sources of GHG emissions associated with long-term operations of the Proposed Project would include vehicular emissions associated with employee commuting trips and maintenance vehicles, and natural gas consumption. These operational emissions containing greenhouse gases would be minor and would not contribute to significant impacts involving global climate change. By providing a utility-scale source of clean and renewable electricity, this project is expected to avoid significant GHG emissions that could otherwise occur if this energy were generated by traditional thermal energy production processes. A comprehensive quantitative assessment of the project’s GHG-emission impacts and benefits, relative to climate change, will be provided in the EIR.

b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases including regulations implementing AB 32 of 2006, General Plan policies and implementing actions for GhG emission reduction, and the Los Angeles Regional Climate Action Plan?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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This Project, as a clean, renewable energy power project, would help implement a key statewide and regional strategy to reduce GHG emissions from power generation by providing a utility-scale source of clean electrical power that would not involve any combustion processes. Gaseous emissions generated by construction machinery and vehicles would include GHG emissions, which will be quantified and assessed in the EIR. Project operations would generate only very limited GHG emissions associated with Project operations, which would be largely offset by the GHG benefits of the Project. This project would not conflict with any plans, policies or regulations adopted to reduce GHG emissions. This will be demonstrated through a discussion of how this project will implement key GHG reduction strategies established by state legislation and regional planning programs will be provided in the EIR.

9. HAZARDS AND HAZARDOUS MATERIALS

	<i>Less Than Significant</i>			
<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, storage, production, use, or disposal of hazardous materials or use of pressurized tanks on-site?

Construction methods and materials for this project would be typical of projects of this type and would involve the use of hazardous materials, such as gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, and welding materials/supplies. All hazardous materials would be stored on-site in vessels/containers that are specifically designed for the characteristics of the materials to be stored; as appropriate, and these would be supplemented with secondary containment, if needed.. Transport, storage, use and disposal of hazardous substances during the construction phases would be carefully managed to prevent a significant impact, through implementation of a Hazardous Materials Construction Management Program, to be developed for approval by the Los Angeles County Fire Department. This would define hazardous materials storage areas and methods, accident prevention and response procedures, hazardous waste collection and disposal methods, and all related Contractor responsibilities. The approved program would be implemented throughout the construction phases and would be sufficient to reduce potential impacts to less than significant. Construction phase impacts and proposed mitigation measures will be discussed in the EIR.

Limited quantities of hazardous materials would be used and stored on-site at the Operations and Maintenance (“O & M”) Building for operational and maintenance purposes. These materials would include oils, lubricants, paints, solvents, degreasers and other cleaners, FM200 fire suppressant, and transformer mineral oil. Due to the limited quantities involved, the controlled environment, and the concrete floor of the operations and maintenance building, a spill can be cleaned up without adverse environmental consequences. Natural gas would be stored in a pressurized container, for minor applications such as water heating within the O & M facilities. Maintenance of wind turbines would involve use of common greases and oils that are flammable and thus considered hazardous. Solar panel bearings would also require application of a common, but flammable grease material. A variety of batteries may be stored on site, which could be hazardous if damaged or leaking occurs. Transformers within the substation will be cooled with a fire resistant mineral oil or a synthetic equivalent. Hazard levels associated with these aspects of the Energy Farm are considered low, but will require further analysis. A Hazardous Materials Management Plan (HMMP) would be developed for approval by the Los Angeles County Fire Department, prior to Project operations and would include procedures for hazardous materials handling, use, and storage, emergency response, and spill control and prevention. Implementation of the HMMP would reduce potential operational impacts to less than significant. Storage, use, and disposal of hazardous materials as part of Project operations and the key elements of the Project’s HMMP will be discussed in the EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials or waste into the environment?

A Phase I Environmental Site Assessment (“Phase I ESA”) has been completed for the Energy Farm portion of the Site, in accordance with the American Society for Testing and Materials (ASTM) Standard Practice E 1527-05, to identify

Recognized Environmental Conditions (“RECs”) onsite.¹ A REC indicates the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The Phase I ESA identified four RECs on the Energy Farm site. An underground storage tank (UST) suspected to have been used for fuel storage, and inactive for more than 20 years, was identified within the Healy Farms, and a small solid waste dump site was identified in a low area formerly used for water storage, just south of the farms. The dump contained solid wastes associated with onsite ranching activities and a variety of municipal solid wastes from neighboring properties. Among these wastes were some drums and smaller containers that may have contained hazardous substances. There was no evidence that the UST had leaked any hazardous materials before it was filled with dirt and buried; however, water testing was conducted at a nearby deep water well and beneath the dump site. Detectable traces of common metals were found in the well testing area, at concentrations below California Maximum Contaminant Levels for drinking water. Groundwater was not encountered to depths of 102 feet beneath the solid waste dump site and it was concluded that the dump site did not result in a release of hazardous substances to groundwater. The dump site was removed and all wastes disposed of in June 2010. Solid waste materials within a former irrigation vault and a small solid waste dump site, estimated at covering just over an acre in surface area, were identified on a residential site in the Southern Energy Farm. The origin and composition of the wastes within the concrete vault are unknown. Wastes identified in the small dump site include inert materials such as scrap metal, wood and plastic, along with a variety of above-ground containers ranging in size from one quart to 55 gallons. Some of the containers were in a degraded condition and evidence of release of paints and petroleum substances was observed. Additional evaluation of these waste materials is necessary to determine whether a release of hazardous materials has occurred and how to most effectively dispose of the kinds of wastes that are identified. This additional evaluation and the recommended mitigation measures will be presented in the EIR.

Several other drips of petroleum product releases associated with ranching and farming equipment were observed on site; however, these were not characterized as RECs. Two Above-Ground Storage Tanks (AST’s) were identified in the Farms complex; these provide fuel for farm machinery and equipment. No signs of leaking or hazardous conditions were observed at these tanks.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 500 feet of sensitive land uses (e.g., homes, schools, hospitals)?

Approximately 10 residential dwelling units are located within 500 feet of the Energy Farm boundaries. Three adjacent properties contain dwelling units located within 500 feet of the Gen-Tie Line corridor. No schools or hospitals are located within 500 feet of Proposed Project. Proposed wind turbines and solar arrays, as well as the Project substation, do not include any equipment or processes that require handling of acutely hazardous materials and would not generate any hazardous or emissions. As discussed in the response to item a), further analysis of the use, storage and disposal of a variety of common hazardous substances as part of regular Project operations will be provided in the EIR. Since the Gen-Tie Line would be placed in underground ducts covered with a cementitious fill material, this Project component would not generate any hazardous emissions or represent a threat involving hazardous materials to any adjacent land uses.

¹ KTA Associates, Inc., Phase I Environmental Site Assessment for the Fairmont Project in Southern California, November 9, 2009, and KTA Associates, Inc. Phase I Environmental Site Assessment for the Wildflower Project in Southern California, May 18, 2011.

Public safety issues related to wind electrical generation could arise from tower or rotor failure if wind turbines experience excess speed, material fatigue, excessive stresses, or vibration from seismic ground shaking causing a rotor blade to crack or dislocate from a turbine tower. To prevent potential hazards to Energy Farm personnel and individuals in the vicinity of the Site, the Project is designed with setbacks for wind turbines and associated facilities from residences, roads, property lines, and other features. For example, wind turbines would be setback a minimum of 0.25 mile (1,320 feet) from any non-participating off-site residence and at least the overall height of the tower plus the fully extended blade from any public street. Based on current 3.0-MW turbine technology, this distance is approximately 498 feet. Solar PV arrays and ancillary facilities involve a low hazard level from potential electrical fires involving electrical circuitry. In addition to compliance with Los Angeles County Fire Department regulations for design and operations of the solar facilities, all arrays would be set back at least 50 feet from any side or rear property line, public street, public access, utility easement, or pedestrian easement and at least 50 feet from any off-site residence or other structure. With the proposed setback standards, adjacent land uses would not be exposed to significant hazards associated with the placement of wind turbines or solar PV arrays. Nonetheless, this issue will be further discussed in the EIR.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

A search of available environmental regulatory databases for sites of concern (SOCs) was conducted the ASTM E-1527-05 standard, to screen for potential sources of contamination or activities of environmental concern within the Energy Farm and a 1-mile area surrounding the Site. No SOCs were found in the search of available (“reasonably ascertainable”) government records. A similar records search has not been conducted for the Gen-Tie Line corridor; therefore, this research will be conducted and included in the EIR.

e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The Proposed Energy Farm is not located within an airport land use plan or within 2 miles of an airport.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The eastern terminus of the Proposed Gen-tie Line (only for the SCE transmission line interconnection option) is located approximately one mile southwest of the Bobunk’s Airpark Airport, a privately owned dirt airstrip with two runways. The Project would not be affected by and would not affect air traffic associated with that private airstrip. There is an inactive private landing strip within the Shea’s Castle property in the Southern Energy Farm. This would not be activated for any Project-related operations.

g) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

Emergency access to and in the vicinity of the Site could be adversely affected during construction activities. A traffic impact study will be prepared to quantify estimated construction traffic volumes and distribution patterns, and to consider the effects of oversized vehicles hauling large containers of wind turbines and solar field components, as well as large construction machines such as cranes. A Construction Traffic Management Plan will be developed, including provisions to maintain sufficient access by emergency vehicles during Project construction. The traffic impact study and the recommended Construction Traffic Management Plan will be included in the EIR.

During operations, emergency access to and in the vicinity of the Project area could potentially be affected by wildfires or flooding. The proposed Project would have established plans and procedures for responding to emergency situations, including potential disruption of emergency access during wildfires or localized flooding. Since the operating solar and wind generation facilities would not involve regular truck traffic and small volumes of commuter traffic for the 15 to 20 on-site personnel, it would not interfere with emergency response efforts utilizing State Highway 138, Lancaster Road or local streets. The Healy Farms has not been included in any emergency response or evacuation plans in the past, and this Site has not been identified as a key resource in any such plans. This project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

h) Expose people or structures to a significant risk of loss, injury or death involving fires, because the project is located:

See discussion below

i) in a Very High Fire Hazard Severity Zones (Zone 4)?

The southern portion of the Energy Farm site, generally south of Lancaster Road, is classified by the County within a High Fire Hazard Severity Zone. A moderate fire hazard zone occurs along the southern edge of Lancaster Road, just east of the existing Healy Farm facilities. Development of the proposed energy farm will alter several hundred acres of existing surface topography and vegetation and will reduce much of the flammable characteristics of this landscape; however, the extensive remaining open space on and surrounding the Site will continue to exhibit wildland fire hazards. The Project will be designed in accordance with the County's vegetation management and fuel modification standards for development in a wildland fire hazard area, to minimize such hazards. Assessment of existing and post-development fire hazards will be included in the EIR.

ii) in a high fire hazard area with inadequate access?

Lancaster Road and 170 St. SW provide public vehicular access to and through the Site. Both are considered adequate to carry a range of fire trucks and emergency response vehicles in the event of a wildfire. The 23 miles of new roads constructed for the project will also greatly enhance access across the site for possible firefighting operations.

iii) in an area with inadequate water and pressure to meet fire flow hazards?

Private, on-site water wells are the only water source available to the Site and have been adequate to support the hay farming, horse ranching, and residential uses that have occurred here in the past. The Project is being designed to meet all applicable standards for water flow and pressure established by the County Fire Department. Current plans include a 56,000-gallon water storage tank, an additional water well, a duplex fire pump assembly, and two fire hydrants to be installed near the planned operations and maintenance building in the Proposed Energy Farm. Adequate water pressure must be demonstrated to verify compliance with Fire Department requirements. A 70,000-gallon water storage tank would be built within the Healy Farms area, to provide a water supply for semi-annual solar panel washing. This could potentially provide a supplemental source of water for fire suppression on site. Additional analysis of the proposed water supply and flows will be conducted, in consultation with the County Fire Department, and included in the EIR.

iv) in proximity to land uses that have the potential for dangerous fire hazard (such as refineries, flammables, and explosives manufacturing)?

The surrounding land is sparsely mostly undeveloped, with several scattered residences, a church, the Fairmont Water Reservoir, and the California Aqueduct. None of those uses represent a dangerous fire hazard.

10. HYDROLOGY AND WATER QUALITY

	<i>Less Than Significant</i>			
<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Construction activities would involve grading and ground surface alterations which could expose soils to potential erosive forces of wind or storm water. A variety of construction materials would be stored on site and some of these could include constituents that could impact surface water quality conditions, such as fuels, lubricants, solvents, coatings, etc. Without proper construction controls, loose sediments and a variety of construction materials could be captured within Site runoff and potentially threaten on-site water quality or downstream receiving waters. Construction activities would be conducted in accordance with the water quality control measures required for a General Construction Permit (“GCP”), issued by the Lobantan Regional Water Quality Control Board, to prevent construction discharges that could violate water quality standards. Further discussion of the GCP requirements and anticipated construction period water quality control measures will be provided in the EIR.

Impervious surfaces would increase due to site development, including compacted internal roads, building pads and buildings for operations and maintenance facilities, and pad areas for solar arrays and wind towers. As a result, there could be an increase in site runoff during rain storm events, compared to current conditions. In the operations and maintenance site, there could be a variety of machinery, materials, supplies, including liquid and solid substances, within the laydown/ storage yard, during periods when wind turbines and solar arrays are being assembled and maintained. If there is improper storage and cover of such items, or if there are accidental spills of any hazardous materials, there could be impacts to surface water quality constituents. A long-term water quality management plan would be developed, in accordance with the countywide SUSMP, to ensure that the developed site runoff does not generate water pollution impacts or violate any water quality standards. Further discussion of potential sources of water pollutants in developed site runoff and best management practices to be incorporated into the project design to avoid significant water quality impacts, will be provided in the EIR.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Water demands for the Energy Farm would occur primarily at the operations and maintenance building(s), along with semi-annual washing of the solar panels, and water storage for emergency fire suppression needs. Total water demand is expected to be lower than the historical demand associated with the ranching/ hay farming that has occurred for the last several decades. Water supply for the Project would be from an existing deep well (>1,000 feet) within the ranch compound, and/ or from a new well that may be drilled within the operations and maintenance area. Significant impacts to the groundwater table are not anticipated; however, analysis of the project’s total water demand and impact on local groundwater supply sources will be provided in the EIR.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

There are no rivers on or adjacent to the Site. The Project is being designed to control runoff from developed areas without a substantial alteration to the existing site drainage patterns. No development would be located within the segments of the three broad washes that traverse edges of the Energy Farm site, and no development would occur within any known flood hazard area. The proposed grading plan would alter existing drainage conditions on-site, including alterations to ephemeral drainages. A Hydrology Study will be prepared to evaluate pre- and post-development surface hydrology and to identify design measures to prevent on or off-site potential siltation or erosion impacts associated with changes in drainage conditions. Results of this hydrology study will be discussed in the EIR.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

There are no rivers on or adjacent to the Site. The Project is being designed to control runoff from developed areas without a substantial alteration to the existing site drainage patterns. The proposed grading plan would alter existing drainage patterns on-site, including alterations to ephemeral drainages. A Hydrology Study will be prepared to evaluate pre- and post-development surface hydrology and to identify design measures to prevent on- or off-site potential flooding impacts associated with changes in volumes of site runoff. Results of this hydrology study will be discussed in the EIR.

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems?

There are no public storm water drainage systems or private, community-scale systems that collect storm water runoff from the Energy Farm, and none are planned. No impact to storm water drainage systems is anticipated. Nonetheless, changes in site runoff and a discussion of the proposed on-site drainage network will be discussed in the EIR.

f) Generate construction or post-construction runoff that would violate applicable storm water NPDES permits or otherwise significantly affect surface water or groundwater quality?

The Project will be designed to comply with applicable NPDES Permits, and as such, violations of such permit conditions are not expected. Potential water quality impacts and measures to avoid significant impacts during construction and as a result of the developed site conditions will be evaluated in the EIR. Please refer to the previous response to item a) herein.

g) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)?

A conceptual drainage plan is being developed for the proposed project, in accordance with the provisions of the County's Low Impact Development Ordinance (LIDO) and conflicts are not anticipated. Nonetheless, this plan and its LID compliance measures will be described in the EIR.

h) Generate construction or post-construction runoff that would violate applicable storm water NPDES permits or otherwise significantly affect surface water or groundwater quality?

The Project will be designed to comply with applicable NPDES Permits, and as such, violations of such permit conditions are not expected. Potential water quality impacts and measures to avoid significant impacts during construction and as a result of the developed site conditions will be evaluated in the EIR. Please refer to the previous response to item a) herein.

i) Result in point or nonpoint source pollutant discharges into State Water Resources Control Board-designated Areas of Special Biological Significance?

"Areas of Special Biological Significance" is a formal designation reserved for ocean waters, which do not occur on or near the Site. The State Water Resources Board also created a "Preservation of Biological Habitats of Special Significance" (BIOL) classification, which allows the regional boards to identify other beneficial waters as areas or habitats requiring special protection. The Site is located within the jurisdiction of the Lahontan Regional Water Quality Control Board, which administers statewide water quality regulations for point and nonpoint sources of water pollution. Within the Lahontan region, BIOL-designated areas include some watercourses, lakes, and wetlands to protect unique combinations of plants and/or wildlife species. There are no BIOL-designated areas within the Antelope Hydrologic Unit in which the Site is located,² therefore, this Project would have no impacts on such areas.

j) Use septic tanks or other private sewage disposal system in areas with known septic tank limitations or in close proximity to a drainage course?

Wastewater from the existing ranch facilities is currently disposed of with an on-site, underground septic system. Los Angeles County Department of Public Health records indicate this was installed in accordance with a permit for a 1,000-gallon system issued in 1974. It is located within the ranch compound, near the home and trailers. Proposed operations and maintenance facilities would discharge wastewater into a new subsurface septic tank/leach field system. Wastewater discharges from the operations and maintenance facility would consist of similar kinds of gray water and black water currently discharged from the ranch facilities. The proposed operations and maintenance site is relatively flat, and there are no drainage courses in that area. Soil suitability for an underground wastewater disposal system and measures to prevent groundwater quality impacts will be discussed in the EIR.

² Water Quality Control Plan for the Lahontan Region, Table 2-1. Beneficial Uses of Surface Water of the Lahontan Region.

k) Otherwise substantially degrade water quality?

This project does not include any point sources of water discharges that could degrade water quality. Potential effects from non-point sources as a result of construction and in the fully developed conditions will be evaluated in the EIR, as noted in prior responses.

l) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map, or within a floodway or floodplain?

No housing or other residential uses are included in the proposed project; therefore, there would be no impact involving placement of housing within either of these flood hazard areas.

m) Place structures, which would impede or redirect flood flows, within a 100-year flood hazard area, floodway, or floodplain?

Part of the northern edge and part of the southeastern corner of the Proposed Energy Farm are located within a 100-year flood plain established by the Federal Emergency Management Agency (FEMA). These same areas are identified as Floodplain Management Areas in the Antelope Valley Area Plan's Hazards and Resources Map. Proposed solar arrays and wind turbines would be located outside of those flood hazard zones. The site plan is designed to avoid development within the two flood hazard zones that affect the northern edge of the Site and a portion of the eastern edge of the Site. This will be confirmed as part of the analysis conducted in the Hydrology Study to be prepared for the EIR.

n) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

There are no levees or dams in this area and this Site is not within any known inundation areas from such facilities.

o) Place structures in areas subject to inundation by seiche, tsunami, or mudflow?

There are no natural surface water bodies in this area that could overflow onto the energy farm or transmission line corridor as a result of seismically-induced seiche conditions. The Fairmont Reservoir is located approximately 0.35 mile (1,800+ feet) west of the southwestern corner of the Site, at an elevation approximately 100 feet higher than the nearest edge of the Energy Farm site. Intervening topography slopes from the reservoir toward the Site. If it were full and there was a strong enough earthquake event to generate seiche conditions at the reservoir, it is considered unlikely that reservoir spillover water would inundate any of the proposed energy farm facilities, due to the distance involved and because the California Aqueduct lies between the reservoir and any proposed Project improvements, and thus would intercept the spillover. Located in the "upper desert" region of northern Los Angeles County, there is no threat of tsunami conditions at the Site. The potential for mudflow risks associated with heavy storm runoff from local hillsides and drainages will be evaluated in a geotechnical study and hydrology report to be prepared and incorporated into the EIR.

11. LAND USE AND PLANNING

	<i>Less Than Significant</i>			
	<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>

Would the project:

- a) Physically divide an established community?

Much of the Northern Energy Farm site has been operated as a private horse ranch and hay farm for the last several decades, and it is surrounded by primarily undeveloped lands, with some scattered residences, a church and water storage/transmission facilities. No physical components of a broader community structure occur around the Energy Farm site. Thus, this Project would not physically divide an established community.

- b) Be inconsistent with the plan designations of the subject property? Applicable plans include: the County General Plan, County specific plans, County local coastal plans, County area plans, County community/neighborhood plans, or Community Standards Districts.

The majority of the Energy Farm and Gen-tie Line corridor is designated in the Los Angeles County Antelope Valley General Plan as N1-Non-Urban (0.5 du/ac) and is zoned A-2-5 (Heavy Agriculture), a designation and zoning that allows for renewable energy projects as conditionally permitted uses. In addition, portions within the northern, central, and eastern portions of the Proposed Energy Farm are located within the Fairmont & Antelope Buttes SEA No. 57.

The County of Los Angeles is currently in the process of updating the Antelope Valley Areawide Plan, known as the "Town and Country Plan." According to the June 1, 2010, Preliminary Draft Land Use Map, the Proposed Energy Farm will be primarily located within the Rural Land ("RL") designation, with residential densities ranging from 1 du/10 acres to 1 du/40 acres.

Within Los Angeles County, the Gen-Tie Line corridor will be located in RL 20 and Rural Land 10 (RL 10) land use designations. The RL 10 designation allows a maximum residential density of 1 du/10 acres and a maximum FAR of 0.5. The eastern 1.5 miles of the Gen-Tie Line corridor is located within the City of Lancaster, and is designated in the Lancaster General Plan mostly as NU (Non-Urban Residential, 0.4–2.0 du/acre) and is zoned RR-2.5 (Rural Residential, 1 du/2.5 acres). A small segment is designated in the City's General Plan as UR Urban Residential (2.1–6.5 du/acre) with a Specific Plan overlay.

This Project would not conflict with the County's existing or proposed Area Plan designations; however, it would require the issuance of a Conditional Use Permit (CUP) for construction of the proposed up to 300-MW renewable energy project in an agricultural zone; for grading (cut and fill) of approximately 4,145,200 cubic-yards of soil; and for development within a County-designated Significant Ecological Area 57 ("SEA No. 57"). Project consistency with the planning policies for SEA No. 57 and with the County's existing and proposed land use policies for the Fairmont area will be addressed in the EIR.

Construction of the segment of the Gen-Tie Line within the City of Lancaster would not conflict with the City's land use plans and policies in that area; however, it may require some form of land use approval or construction permit. This will be determined as part of the land use analysis conducted for the EIR

c) Be inconsistent with the zoning designation of the subject property?

As discussed in the preceding response, the Energy Farm and Gen-Tie Line would not conflict with County of Los Angeles or City of Lancaster zoning provisions, but requires a Conditional Use Permit process for the Los Angeles County portion of the Site, to ensure the Project is compatible with surrounding land uses and result in minimal environmental harm. As such, the EIR will include a discussion of the Project's consistency with local land use policies and regulations, including the applicable zone district regulations.

d) Conflict with Hillside Management Criteria, SEA Conformance Criteria, or other applicable land use criteria?

The Project's development footprint occurs within approximately 26.3 acres (5.5 percent) of the Site area within the Fairmont & Antelope Buttes SEA No. 57 (a total of 475.8 acres, or 12.8 percent, of the total Project Site is located within the SEA), and also includes approximately 15 acres on land with natural slopes of 25 percent or greater. Compliance with the SEA Conformance Criteria and the Hillside Management criteria will be evaluated in the EIR.

12. MINERAL RESOURCES

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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Would the project:

<p>a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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The Phase I ESA did not identify any mining, oil or gas wells on or near the Energy Farm site, and there is no evidence of any prior mining on site. According to Map 3-1 of the Antelope Valley General Plan Update—Background Report, the Site is not designated as a mineral resource area by the County.

<p>b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Please refer to the preceding response.

13. NOISE

	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<i>Potentially Significant Impact</i>			

Would the project result in:

a) Exposure of persons to, or generation of, noise levels in excess of standards established in the County noise ordinance (Los Angeles County Code, Title 12, Chapter 12.08) or the General Plan Noise Element?

When fully developed and operational, the proposed energy farm would employ 15 to 20 people on a daily basis. For the most part, these people would work inside the operations and maintenance building and would periodically travel around the Site for routine monitoring and maintenance activities. There are few noise sources in this sparsely settled rural area, and future workers on-site would not be exposed to significant noise levels. The Proposed Project would generate different kinds of noise than presently occur on site. During construction, noise would be generated by a variety of machinery and vehicles, with a range of noise levels, depending on the types and numbers of machines and vehicles and their locations. During operations, noise sources would include street traffic associated with on-site employee commute trips, wind rotors turning, activities in the outdoor laydown/ storage yard, vehicles arriving and departing within the on-site parking lot serving the Operations and Maintenance building, and periodic maintenance activities within the solar arrays and at wind turbines. Project design features include minimum setbacks for all wind turbines, of at least one-quarter mile from any non-participating off-site residence or other noise-sensitive land use, to reduce potential noise impacts. A noise study will be prepared for the EIR, to evaluate the potential construction and operational noise impacts of the Project, and to determine whether any surrounding land uses noise levels generated by this Project that exceed the County’s noise ordinance or General Plan Noise Element standards.

b) Exposure of sensitive receptors (e.g., schools, hospitals, senior citizen facilities) to excessive noise levels?

Sensitive noise receptors in the area of the Energy Farm include several scattered residences and one church, but there are no sensitive receptors such as schools, hospitals, senior citizen facilities, libraries, or similar land uses located in the Project area. During construction, the nearest residences might be exposed to periodically high levels of noise, depending on the type and number of machinery and vehicles that are active at a particular time and where the construction activity occurs. Temporary construction noise impacts will be evaluated as part of the noise study to be included in the EIR. Long-term noise impacts from this Project are not anticipated to significantly affect any sensitive receptors; however, further assessment of potential long-term noise impacts will be included in the EIR.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from parking areas?

Long-term operational activity would result in some new noise sources that are not expected to result in significant increases in ambient noise levels. Nonetheless, as discussed in the response to item b) above, a noise study evaluating the change in noise levels associated with the long-term project operations will be prepared for the EIR to determine whether there could be a substantial permanent increase in off-site noise levels.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project, including noise from amplified sound systems?

During the construction phases, a variety of machinery, tools, and vehicles will be active. Noise levels associated with construction activities will vary, based on the range of machinery and vehicles involved and the intensity level of the construction activity. There might be some construction work that generates substantial increases in local noise levels that could negatively affect the nearest residential uses. Construction phase noise impacts will be evaluated in a noise study, as part of the EIR.

No outdoor sound systems are proposed; however, there will be regular maintenance activities at the solar arrays and wind turbines involving large equipment that would generate noise for short-time periods. Noise impacts associated with periodic and ongoing maintenance work will be evaluated in the noise study prepared for the EIR.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

There are no public airports within 2 miles, and the proposed energy farm and the Gen-Tie Line corridor are not within any airport land use plan area.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The eastern terminus of the Gen-tie Line (only for the SCE transmission line interconnection option) is located approximately 1 mile southwest of the Bobunk's Airpark Airport, a privately owned dirt airstrip with two runways. There is minimal air traffic associated with this airstrip and, therefore, insignificant aircraft noise from this facility. Future workers at the Energy Farm would not be exposed to excessive noise levels from this private airstrip.

14. POPULATION AND HOUSING

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

When fully operational, the proposed solar and wind energy generation facilities would produce enough electricity to power more than 114,000 homes. The electricity would be transmitted to the regional electric grid for distribution to electricity consumers. The Project would not directly induce any population growth, but it would indirectly support continued regional growth that relies on electricity for many needs. Decisions as to which areas will receive the electricity generated by this Project is beyond the control of this Project, and future growth that would benefit from this renewable energy source would occur when and where it is approved by the local governmental agency with land use decision-making powers. A total of 23 miles of private, internal access roads are proposed within the Energy Farm. These would be graded and compacted, but not paved. These would provide access to and within solar arrays, wind turbines, the operations and maintenance site and the substation. As such, these internal circulation elements would not induce growth by providing additional capacity for the local or regional transportation network. However the issue will be further studied in the EIR.

b) Cumulatively exceed official regional or local population projections?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Since this project would have no residential uses and a small workforce of about 15 to 20 people on site at any time, it would not materially affect local or regional population projections.

c) Displace existing housing, especially affordable housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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The on-site housing on-site will remain in place with the Project.

d) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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As noted in the preceding response, existing housing on-site would remain in place. Thus, the Project would not displace anyone.

15. PUBLIC SERVICES

	<i>Less Than Significant</i>		
<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>

a) Would the project create capacity or service level problems, or result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Fire protection services in the project area are provided mainly by the 11 fire stations that comprise Battalion 11 of the County of Los Angeles Fire Department. Battalion 11 headquarters is in Lancaster. The southern portion of the Energy Farm site, generally south of Lancaster Road, is classified by the County within a High Fire Hazard Severity Zone. A moderate fire hazard zone occurs along the southern edge of Lancaster Road, just east of the existing Healy Farm facilities.. During the construction phases, there could be more than 330 workers on site on a given day, along with a variety of machinery, construction supplies and materials, and fuels and other hazardous materials on-site. It is possible that construction activities could accidentally ignite a fire that could spread to off-site land uses. It is also possible that a wildfire off-site could impact the Site. At various times in the construction process, there might be a need for temporary traffic controls to ensure through traffic and emergency access is maintained. The need for specific mitigation measures for the construction phases will be discussed in the EIR. Given that the Site is located in a landscape susceptible to wildfires, the developed and operational solar, wind, operations/maintenance, and substation facilities may require protection from wildfires at some time in the project’s operating life. Project design features will include special measures such as a fuel modification plan and vegetation management, to reduce the threat of wildfire within the developed portions of the Energy Farm; this will be addressed in the EIR. Response times from LA County Fire Stations might be adversely affected during peak construction traffic periods, when the most oversize vehicles are traveling to the Site; this potential impact will be addressed in the traffic study to be prepared for the EIR. Fire Department response times would not be adversely affected by the small workforce traffic associated with this Project. Fire suppression resources would not be impacted by the underground Gen-Tie Line, which would not be exposed to potential wildland fire or other ground surface based fires. The need for fire suppression resources to protect proposed structures and energy facilities, and impacts related to meeting those needs will be evaluated in the EIR.

Sheriff protection?

The nearest sheriff station is located in the City of Lancaster, approximately 17 miles east of the Proposed Energy Farm. During the construction phases, on-site storage of machinery, supplies, materials, vehicles, etc. could be targets of theft or vandalism, possibly requiring response from the Sheriff Department. Demand for Sheriff response would be reduced through private on-site security measures to be implemented throughout construction by the Project developer. Specific security measures will be identified in construction plans and approved by the Sheriff Department prior to the issuance of grading permits. This routine procedure would reduce demand for Sheriff resources during construction to less than significant. As discussed in the preceding response, there could be an adverse effect on emergency response times during periods of peak construction traffic involving oversize vehicles that might restrict normal traffic flows. This potential impact will be addressed in the traffic study to be prepared for the EIR.

The fully developed and operational energy farm would be privately operated and maintained by 15 to 20 people on a daily basis that would represent a secure presence during normal business hours. Low-level security lighting will be provided at the

operations and maintenance and substation sites. Given the fixed nature and size of the solar arrays, wind turbines, and substation, opportunity for theft of those is negligible. Periodic maintenance activities at solar arrays and wind turbines would be handled by a small work crew and, in the case of wind turbines, some large machinery. This work is not likely to require Sheriff Department resources for surveillance and security. Public access would be restricted by fencing around the solar arrays, substation and operations and maintenance site, to minimize threats of burglary or vandalism and to protect people from accidental harm. The Project includes new public recreation trails, for pedestrian and equestrian use. This occasional recreational trail usage is not expected to result in circumstances that would require an increase in demand for Sheriff Department resources. The underground Gen-Tie Line would have no impact on Sheriff services. This project is not expected to place a significant demand on the County Sheriff Department; nevertheless, a discussion of proposed on-site security measures will be provided in the EIR.

Schools?

Since this project consists entirely of energy generation and transmission facilities, with a small on-site workforce, it would not add any students to the local school district and this project would have no effect on public schools.

Parks?

This renewable energy generation and transmission project would have no demands for public park services or public parkland and would not encroach into any existing or planned parkland; therefore, no impact is anticipated. Other potential effects on public parkland, i.e. the Poppy Reserve, will be addressed in the EIR with respect to Aesthetics and Land Use.

Libraries?

This renewable energy generation and transmission project would have no demands for library services and would have no impact with respect to levels of service for parks and recreation resources.

Other public facilities?

This project would not require staffing resources or facilities from any other kinds of public services.

16. RECREATION

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This renewable energy generation and transmission project would have no demands for public park services or public parkland and would not encroach into any existing or planned parkland.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Approximately 6.7 miles of new pedestrian/equestrian trails are included in the plan for the Energy Farm, to implement planned segments of the County’s Backbone Trail Network that could potentially link to recreation areas on the Fairmont and Antelope Buttes, and to provide opportunities for views of scenic areas visible from the Site, such as the Poppy Reserve and distant mountains. Construction of these trails would involve some limited grading outside of Energy Farm development areas, but this is not expected to result in significant environmental impacts. Potential effects of trail construction and use on wildlife habitat will be addressed as part of the Biota Report to be included in the EIR.

c) Is the project consistent with the Department of Parks and Recreation Strategic Asset Management Plan for 2020 (SAMP) and the County General Plan standards for the provision of parkland?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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This renewable energy production/transmission project is not subject to any of the standards concerning parkland that are set forth in the SAMP or General Plan.

d) Would the project interfere with regional open space connectivity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Healy Farms has functioned as a private horse-breeding and training ranch, with alfalfa and hay farming, since the mid-1950s. This land is adjacent to the Antelope Valley California Poppy Reserve, a regionally significant open space area. This Site does not currently provide any public access to regional recreational open spaces, including the adjacent Antelope Valley California Poppy Reserve. There are planned elements of the County’s Backbone Trail network that would link the Energy Farm to the Poppy Reserve and recreational trails to the north and south, but these remain unbuilt at the present time. The Project includes approximately 6.7 miles of pedestrian/equestrian trails that incorporate segments of the County’s planned trail network. Trail routing and design features that would provide connections through the Energy Farm to adjacent open spaces would have beneficial effects that will be discussed in the EIR. The Gen-Tie Line does not traverse nor connect regional recreational open space resources and as such, would have no effect on regional open space connectivity.

17. TRANSPORTATION/TRAFFIC

	<i>Less Than Significant</i>			
<i>Potentially Significant Impact</i>	<i>Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	

Would the project:

a) Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel, and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Measures of performance effectiveness include those found in the most up-to-date Southern California Association of Governments (SCAG) Regional Transportation Plan, County Congestion Management Plan, and County General Plan Mobility Element.

Relatively minor volumes of vehicular traffic are currently generated by activities at the Healy Farms, where horse ranching activities have diminished from historic levels. The Proposed Project would generate higher traffic volumes during the construction phases, comprised of varying numbers of heavy-, medium-, and light-duty trucks and passenger vehicles. The mix and volumes of traffic will depend upon the nature of the activities underway; for example, heavy truck traffic would occur primarily during short time periods when deliveries of large machinery and materials are required. Trucks would also travel to/from the Site regularly to haul away waste materials. Light duty trucks and passenger vehicle traffic would vary depending upon the number and size of construction crews that are active at a particular time. Construction traffic could potentially result in increased travel on local streets and highways, including State Highway 138, Lancaster Road and 170th St. W, the primary routes of access to the Site. Increased traffic during peak hours is of particular concern. An assessment of construction phase traffic will be conducted to determine whether there could be periods of significant congestion impact that would result in declined performance of the affected portions of the transportation network. This study will also identify key parameters for a construction traffic management plan to ensure that impacts to the surrounding travel network are minimized.

The fully developed Project would generate daily vehicular traffic throughout the work week, consisting of commute trips in private automobiles by the 15 to 20 employees at the operations and maintenance facilities. Periodically, there would be additional traffic, including a variety of trucks associated with special maintenance activities, such as cleaning solar panels and repairs and maintenance of wind turbines. This project would not affect other transportation systems involving walking, biking, bus, or train. While long-term traffic impacts are not expected to result in lower performance standards on the surrounding street and highway network, a traffic impact analysis will be prepared as part of the EIR to determine what the level of impact would be and to identify mitigation measures, if needed, to maintain performance standards.

b) Exceed the County Congestion Management Plan (CMP) Transportation Impact Analysis thresholds?

Please refer to the following response to item c).

c) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the CMP, for designated roads or highways (50 peak hour vehicles added by project traffic to a CMP highway system intersection or 150 peak hour trips added by project traffic to a mainline freeway link)?

A traffic impact study will be prepared for the EIR to determine the volume of peak-hour trips that would be generated during construction and by the fully developed and operational Project and to assess whether those trips would exceed the thresholds of significance for the nearest element of the CMP network, State Route 138.

d) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

With full extended blades, wind turbines would reach heights of approximately 500 feet, which could potentially affect lower level air traffic patterns. Further analysis of potential effects of wind towers relative to air traffic patterns, and assessment of consistency with applicable Federal Aviation Administration (FAA) safety standards will be included in the EIR. Solar panel arrays would be 15 feet in height and would not affect any air traffic. The proposed operations and maintenance building would be approximately 22 feet high and would not affect any air traffic. Substation structures would not exceed a height of 40 feet and would not affect air traffic. Structures within a potential LADWP switchyard for that transmission line interconnection would not exceed 30 feet in height and would have no effect on air traffic. A cable riser structure for an interconnection with the SCE Antelope Valley Substation would include a steel monopole that could reach a height of 100 to 120 feet; therefore, this will also be evaluated with respect to potential effects on air traffic. The underground Gen-tie Line would have no effect on air traffic.

e) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Oversized truck loads for delivery of the wind turbine components would occur during the construction phases. The potential for these oversized loads to create hazardous traffic conditions will be evaluated as part of the traffic study to be incorporated into the EIR. The Proposed Project would not change any existing public street alignments. A new driveway connection is proposed on Munz Ranch Road for access to the substation. This would be designed to be a perpendicular connection and would meet all County design standards for driveway connections to public streets. This driveway would generate minimal traffic on an infrequent basis and would not represent a traffic hazard. Vehicular access would also be created for the proposed operations and maintenance center, including three driveways on 160th St. W and two on Avenue H. Each of these would be oriented perpendicular to the public street and designed in accordance with County specifications. There is minimal traffic on both streets at the present time, and the Project would add minor volumes. The driveways associated with the O&M site would not represent a traffic hazard.

No hazardous traffic conditions are associated with the construction or operation of the Proposed Gen-tie Line.

f) Result in inadequate emergency access?

As discussed in the response to item a) and b) in this section, construction traffic, especially during periods where oversized vehicles are involved, could impede traffic flow along affected routes, including Highway 138, which could adversely affect emergency vehicle response. Further analysis of the characteristics of the construction vehicle fleet at different times and potential need for lane closures or other through traffic restrictions will be conducted as part of the traffic impact study to be included in the EIR. A construction traffic management plan will also be developed as part of the traffic study, to minimize impacts on through travel and to ensure maintenance of adequate access by emergency vehicles. Construction work within the Proposed Energy Farm area would not require closure of any public streets and would not affect emergency access to this Site or surrounding properties. Excavation work for the underground Gen-tie Line along Avenue J might result in some temporary closure of a traffic lane along that street. This street carries relatively low volumes of traffic and the affected segment provides access to four residences. Temporary traffic controls such as use of a flagman will be implemented by the Contractor, if necessary, to ensure that emergency vehicle access to any adjoining residential properties is maintained at all times. This is a routine procedure for construction of underground utilities that occur within a street right-of-way, and significant impacts to emergency access are not expected due to construction of the Gen-Tie Line.

g) Conflict with the Bikeway Plan, Pedestrian Plan, Transit Oriented District development standards in the County General Plan Mobility Element, or other adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

The County's Draft Bicycle Master Plan (January 2011) identifies on-site segments of Munz Ranch Road and Lancaster Road as Proposed Class III Bike Routes. The Project would not hinder the ability to implement these routes; however, this will be discussed further in the EIR. There are no plans or programs in effect to support any other alternative transportation modes or facilities in this area. The Antelope Valley Transit Authority does not currently provide bus service in this area. The Proposed Project would have a less than significant effect on plans, policies, or programs supporting alternative transportation.

h) Decrease the performance or safety of alternative transportation facilities?

There are no alternative transportation facilities on or near the Site; therefore, the Proposed Project would have no impact on such facilities.

18. UTILITIES AND SERVICE SYSTEMS

	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<i>Potentially Significant Impact</i>			

Would the project:

- a) Exceed wastewater treatment requirements of the Los Angeles or Lahontan Regional Water Quality Control Boards?**

An underground septic tank wastewater disposal system was constructed on site in 1974 and has handled all wastewater discharges from the existing ranch facilities. The Proposed Project includes a new septic system to dispose of wastewater from the operations and maintenance facility. A permit to install this system from the Lahontan Regional Water Quality Control Board may or may not be required; this will depend on the volume of wastewater discharge and results of a review by the County of Los Angeles relative to the system characteristics and potential water quality effects. This will be discussed in the EIR.

- b) Create water or wastewater system capacity problems, or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

The Proposed Project will utilize a private, on-site septic tank system for wastewater disposal and private on-site water wells for potable water demands. As such, this project would have no impact on any community-scale water or wastewater systems.

- c) Create drainage system capacity problems, or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

The Proposed Project will include a local, privately maintained drainage control system and would not affect any drainage facilities off site. Design standards and key elements of the proposed on-site drainage system and related effects on surface hydrology and water quality will be discussed in the EIR, within the Hydrology/Water Quality section.

- d) Have sufficient reliable water supplies available to serve the project demands from existing entitlements and resources, considering existing and projected water demands from other land uses?**

Healy Farms (current land use) has relied on a private on-site water well to meet its domestic and irrigation water demands for many years. Based on past well performance and a recent analysis of groundwater quality on-site, high-quality water is available at depths of 1,000 feet or more below the ground surface. The Proposed Project will rely on this same well to provide a water supply for semi-annual solar panel washing and for daily water demands at the operations and maintenance building. A new well may be drilled at the operations and maintenance site to meet its water demands, including requirements for adequate flow and pressure for fire suppression. An analysis of the water demands associated with daily and annual operations

at the fully developed energy farm will be conducted in the EIR, to determine if a higher volume of water will need to be extracted to meet the project's needs and to confirm that increased extraction of groundwater on site would not exceed existing entitlements or have a significant impact on local groundwater resources.

e) Conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52) or Drought Tolerant Landscaping Ordinance (L.A. County Code, Title 21, § 21.24.430 and Title 22, Ch. 21, Part 21)?

The Project drainage and landscape plans are being designed to comply with the applicable provisions of these regulatory standards, and is not requesting any variances or exceptions from these standards. Nonetheless, proposed storm drainage and landscape/irrigation plans will be described and features that achieve compliance with applicable standards will be noted in the EIR.

f) Create energy utility (electricity, natural gas, propane) system capacity problems, or result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The Proposed Project's electricity and gas demands would be provided from on-site electrical energy facilities or containers of natural gas that are periodically trucked in; no off-site utility facilities would be affected. When completed, this Project would generate up to 300 MW of clean and renewable electrical energy that would be added to the regional electrical supply system, a positive impact. Environmental effects resulting from construction and operation of the proposed energy production and transmission facilities will be examined in an EIR, focusing on numerous types of impacts as noted throughout the other responses in this Initial Study.

g) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

A variety of solid and liquid wastes would be generated throughout the construction phases. Many of these wastes would be eligible for disposal at a landfill; i.e., non-hazardous. Volumes of construction wastes to be disposed of are difficult to estimate; however, diversion of construction wastes from landfill disposal through recycling or other means will be emphasized. A discussion of the Project's construction waste generation characteristics and targets for diversion of wastes from landfill disposal will be provided in the EIR.

The fully developed and operational energy farm would generate minor volumes of solid wastes that could require landfill disposal; these wastes would consist of typical municipal wastes that are generated by administrative office operations that would occur at the operations and maintenance facilities only. Proposed solar arrays and wind towers would not generate wastes due to daily operations, but would generate some wastes during periodic maintenance activities when parts are replaced, cleaning occurs, etc. The underground Gen-tie transmission line would not generate wastes. Solid waste disposal needs of the operating energy farm would not have a significant impact on landfill capacity.

h) Comply with federal, state, and local statutes and regulations related to solid waste?

Disposal of solid wastes during construction and throughout the operating life of the Project would comply with all applicable regulations governing waste disposal. No exceptions from any such regulations are being requested and no unique methods of solid waste disposal are proposed that could conflict with applicable standards.

19. MANDATORY FINDINGS OF SIGNIFICANCE

	<i>Potentially Significant Impact</i>	<i>Less Than Significant Impact with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

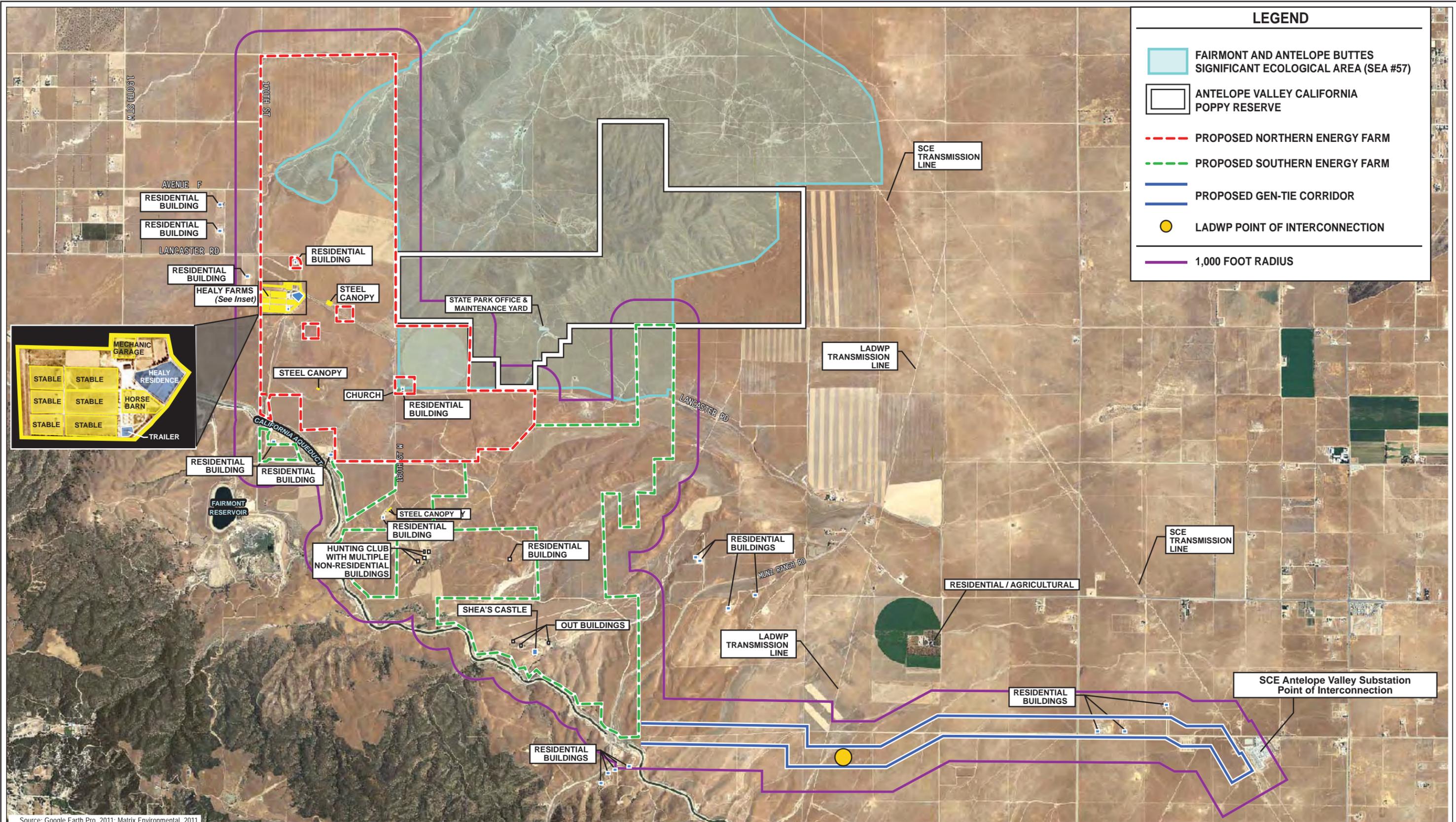
As discussed in the preceding checklist responses, the Project could potentially degrade the environment due to impacts involving aesthetics, agricultural resources, air quality, sensitive plants and wildlife species, cultural and paleontological resources, hazardous materials management, changes in surface water hydrology and water quality, noise, vehicular traffic. An EIR will be prepared to address all of these potential impacts.

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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There are several other solar and wind energy projects proposed in the Antelope Valley Area, along with other development projects which, in combination with the Proposed Project, could result in a variety of cumulative impacts. For example, the AV Solar Ranch One project, a solar energy generation facility, has been approved for development immediately north of this Site. The Blue Sky Wind Farm is proposed to the west and south of the Site. Further analysis is required to estimate potential effects that could combine with the effects of the Project, resulting in potentially significant cumulative impacts. The traffic study to be prepared for this Project, for example, will need to account for traffic generated by other projects that would affect the same elements of the affected roadway network. Cumulative impacts may not occur with respect to all types of impacts; nevertheless, potential cumulative impacts will be examined for each topic that is addressed in the EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Construction activities would generate noise and pollutant emissions that could have a negative impact on the few neighboring homes near the project boundaries. Operational activities, such as the wind tower blade rotations and periodic maintenance activities, would generate noise that does not presently occur on-site and which might have some impact at the few homes surrounding the Site. Solar arrays and wind towers would change the aesthetic character of this Site, and this could have some adverse effects on views to and from the Antelope Valley California Poppy Reserve and possibly from more distant viewing locations. A majority of the Energy Farm site is located in a County-designated High Fire Hazard Area, which presents challenges for fire prevention and suppression during and after construction. Construction phase traffic could impede travel and emergency vehicle access on affected routes such as State Highway 138. Any or all of these impacts could have significant adverse consequences for human beings and further evaluation of these issues will be conducted in the EIR.



LEGEND

- FAIRMONT AND ANTELOPE BUTTES SIGNIFICANT ECOLOGICAL AREA (SEA #57)
- ANTELOPE VALLEY CALIFORNIA POPPY RESERVE
- PROPOSED NORTHERN ENERGY FARM
- PROPOSED SOUTHERN ENERGY FARM
- PROPOSED GEN-TIE CORRIDOR
- LADWP POINT OF INTERCONNECTION
- 1,000 FOOT RADIUS

HEALY FARMS (See Inset)

- MECHANIC GARAGE
- HEALY RESIDENCE
- HORSE BARN
- TRAILER
- STABLE
- STABLE
- STABLE
- STABLE
- STABLE
- STABLE

Source: Google Earth Pro, 2011; Matrix Environmental, 2011.

Wildflower Renewable Energy Farm

