



CERTIFICATION AND FINANCING PROPOSAL

EL CENTRO SOLAR PARK IN EL CENTRO, CALIFORNIA

Submitted: January 28, 2013

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EXECUTIVE SUMMARY

EL CENTRO SOLAR PARK IN EL CENTRO, CALIFORNIA

- Project:** The Project consists of the construction and operation of a 20 MW_{AC} photovoltaic solar park located on land leased from the Imperial Irrigation District (“IID”) in El Centro, California (the “Project”). The energy will be purchased by Imperial Irrigation District (“IID”) pursuant to a long-term Power Purchase Agreement (“PPA”) signed with the Project company.
- Project Objective:** The Project will increase installed capacity of renewable energy resources, reducing the demand on traditional fossil-fuel-based energy production and contributing to the displacement of greenhouse gas emissions and other pollutants from power generation by fossil fuels.
- Expected Project Outcomes:** The anticipated environmental and human health outcomes resulting from the installation of 20 MW_{AC} of new renewable energy generation capacity are: more than 50,000 MWh of electricity for the first year of operation; and an expected displacement of 13,678 metric tons/year of carbon dioxide and 21 metric tons/year of nitrogen oxides.¹
- Population to benefit:** 174,528 residents in Imperial County, California.
- Sponsor:** Grupo T-Solar Global S.A. (“T-Solar”).
- Borrower:** Sol Orchard Imperial 1, LLC (“SOI1”).
- Loan Amount:** Up to US\$67.6 million.

¹ SO₂ emission reductions are not calculated for this Project due to the minimal SO₂ emission factor based on the California energy generation portfolio. According to the Energy Information Administration, the SO₂ emission factor is less than half of the smallest unit of measure: 0.5.

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1. ELIGIBILITY

Project Type

The Project falls in the category of clean and efficient energy.

Project Location

The Project site is located within 100 km of the U.S.-Mexico border in Imperial County, California. Specifically, the Project is located in El Centro, approximately 10 miles north of the border.

Project Sponsor and Legal Authority

The private-sector project sponsor is T-Solar Group (“T-Solar” or the “Sponsor”). T-Solar will use a special purpose company named Sol Orchard Imperial 1, LLC (“SOI1”) for the implementation of the Project. SOI1 is a Delaware-based, limited-liability company incorporated on November 22, 2011. Its contact representative is Lars Peter.

2. CERTIFICATION CRITERIA

2.1 TECHNICAL CRITERIA

2.1.1. Project Description

Geographic Location

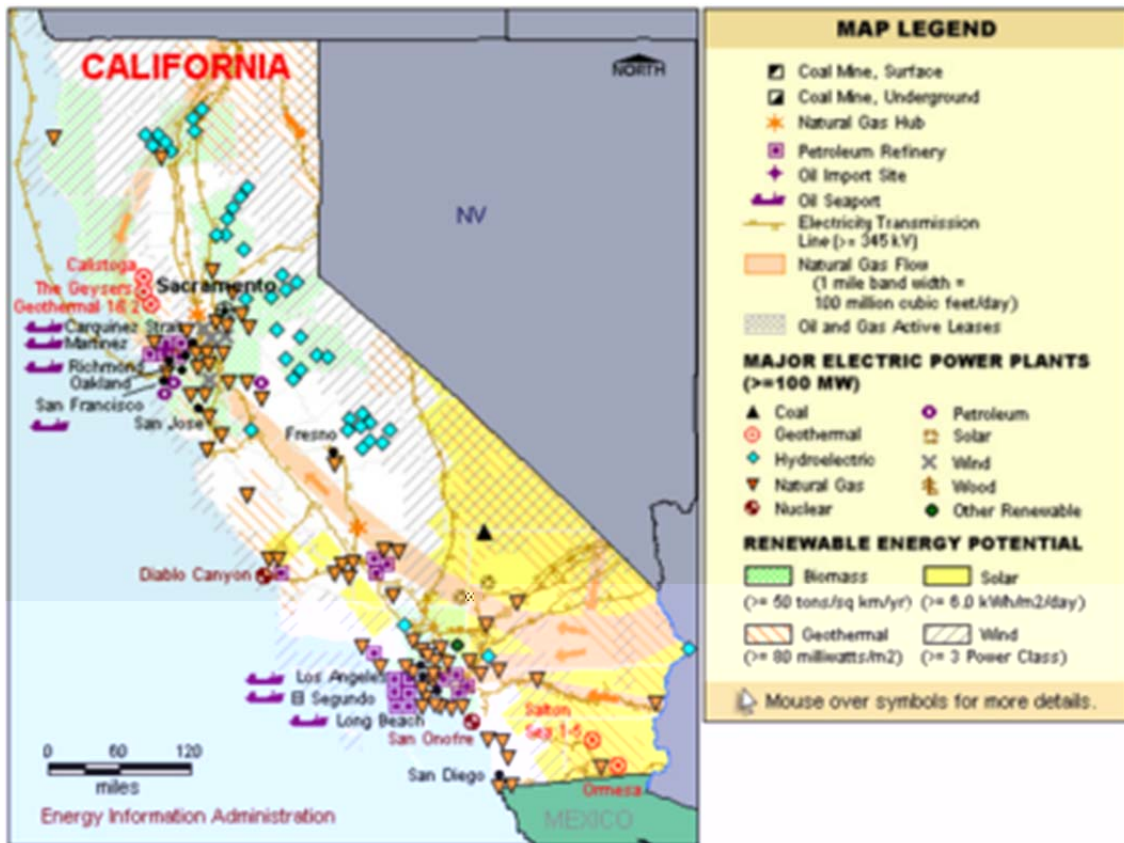
The proposed Project is located within the city limits of El Centro in Imperial County, California. The Project site is comprised of four parcels owned by the Imperial Irrigation District (“IID”) totaling approximately 131 acres. The site is bordered to the west by a suburban neighborhood in the city of El Centro and to the east by the El Centro Power Generation Station.

Local Energy Profile

According to the California Energy Commission, California is among the leaders in the nation in electricity generation from non-hydroelectric renewable energy sources, including geothermal power, wind power, fuel wood, landfill gas, and solar power. California also imports more electricity from other states than any other state in the country.⁴

The U.S. Department of Energy (“DOE”), Energy Information Administration (“EIA”), provides a state-by-state reference for information and data covering energy production and demand. Figure 2 from the EIA website shows the location of California’s power plants, its renewable energy potential, and energy sources.⁵

Figure 2
 CALIFORNIA’S ENERGY SOURCES



In 2002, California's Renewables Portfolio Standard (“RPS”) was established under Senate Bill 1078. In November 2008, the California Energy Policy Report’s goal of 33% generation from renewable sources by 2020 was confirmed by Governor Arnold Schwarzenegger in Executive

⁴ California Energy Commission, Energy Consumption Data Management System, Energy consumption in California. <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>.

⁵ Source: U.S. Department of Energy, EIA, State Energy Profiles – California, 2009.

IID has established an Integrated Resource Plan to add renewable sources to its portfolio in order to meet the state’s greenhouse gas and renewable mandates. The plan provides direction and includes recommendations for expanding IID’s transmission system, power purchases and investment in generation resources. In 2009, IID took several steps to increase its renewable energy mix, including the approval of power purchase agreements for biomass energy and a 23-MW_{AC} solar park in Niland, California.⁷ Currently, independent power projects planned or under development in IID’s area total 2,739 MW. It is anticipated that much of this proposed generation will come online by 2020.

IID’s generation capacity is comprised of a variety of fuel sources. Natural gas is the largest source accounting for 47.8% (534 MW), followed by coal with 9.1% (102 MW), hydroelectric with 5.8% (65 MW) and nuclear with 1.3% (15 MW). The remaining 35% (400 MW) of IID’s generation portfolio comes from external purchases. Table 1 shows the energy mix for IID compared to California as a whole:

Table 1
ENERGY CAPACITY PORTFOLIO COMPARISON (MW)

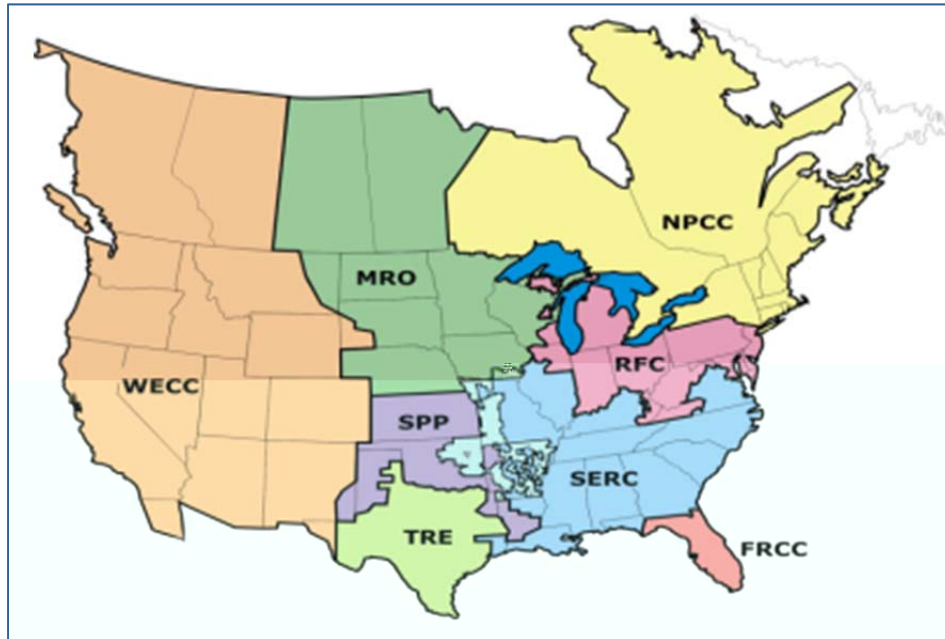
| Energy Resources | IID* (2010) | CA Mix** (2010) |
|-----------------------|----------------|--------------------|
| Natural gas | 47.8% | 61.4% |
| Hydroelectric | 5.8% | 15.1% |
| Other renewables | -% | 9.4% |
| Nuclear | 1.3% | 6.5% |
| Pumped storage | -% | 5.7% |
| Petroleum | -% | 1.0% |
| Coal | 9.1% | 0.6% |
| Other gases*** | -% | 0.3% |
| Cogeneration | -% | -% |
| Other purchased power | 35.8% | -% |
| Total | 100.0% | 100.0% |

* Source: California Energy Commission, 2010 Energy Almanac.
 ** Source: California State Electricity Profiles, 2010
 *** Other gases include blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

IID is a member of the Western Electricity Coordinating Council (“WECC”), the regional entity responsible for coordinating and promoting system reliability in the Western Interconnection. Geographically, WECC is the largest and most diverse of the eight regional entities that have delegation agreements with the North American Electric Reliability Corporation (“NERC”) (see Figure 4), and provides reliable power service across nearly 1.8 million square miles.

⁷ SunPeak Solar Park certified in June 2011.

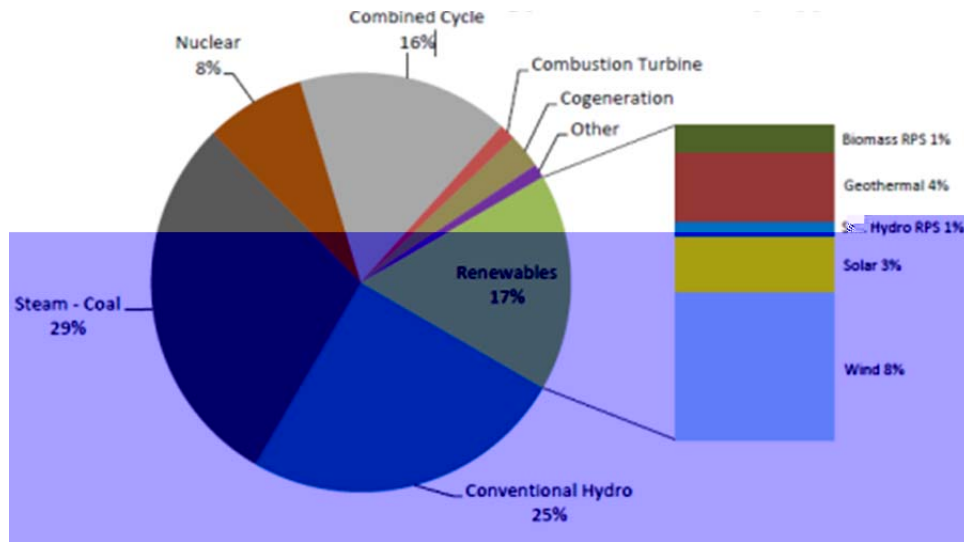
Figure 4
NERC REGIONS



In 2011, WECC developed its 10-year Regional Transmission Plan, an interconnection-wide perspective that includes (i) expected future transmission and generation in the Western Interconnection, and (ii) the transmission capacity that will be required. The objective of the plan is to provide information to stakeholders for their decision-making processes regarding where and when to build new transmission infrastructure or take other related actions to help ensure the Western Interconnection is reliable, low-cost, efficient, and environmentally sound.

WECC is projected to generate 17% of its energy from non-hydro renewable sources in 2020. The mix of renewable generation continues to be dominated by wind; however, strong growth in solar is anticipated. These two sources, along with hydro and nuclear, mean roughly half of the Western Interconnection's total annual energy will be generated by non-carbon emitting resources, as shown in Figure 5.

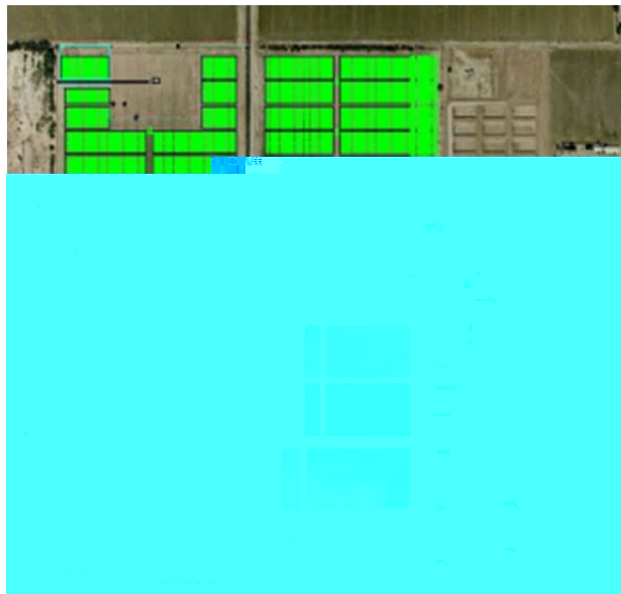
Figure 5
WECC 2020 ANNUAL GENERATION BY TYPE



Project Scope and Design

The scope of the Project is to design, build and operate a 20 MW_{AC} solar park. IID will purchase the electricity produced pursuant to a 25-year PPA. The Project will be constructed on approximately 131 acres (see Figure 6) and will interconnect to the IID's grid through an existing transmission line adjacent to the Project site. The point of interconnection is located on the edge of the southern and western sides of the El Centro Generating Facility.

Figure 6
PROJECT SITE LAYOUT



The Project is expected to begin construction in April 2013, with commercial operation (COD) being reached no later than September 2013. Table 2 presents the status of a non-exhaustive list of key tasks.

Table 2
 PROJECT MILESTONES

| Key Milestones | Status |
|--|----------------|
| Project site lease | Completed |
| PPA with IID | Signed |
| Interconnection Agreement with IID | In progress |
| Engineer, procurement and construction (EPC) contract | Signed |
| Independent engineer report | In progress |
| Environmental authorization (Mitigated Negative Declaration) | In progress* |
| Land use and access (Conditional Use Permit, change of zone, general plan amendment, annexation) | In progress* |
| Construction permits | Pending |
| Commercial Operation Date | September 2013 |

(*)Recommendation for approval by City's Planning Commission has been obtained. Details related to the process for final environmental authorization and the granting of required land use permits and rights-of-way are provided in Section 2.1.3 of this document.

The Project milestones listed above as "in progress," are anticipated to be completed in the first quarter of 2013. Construction permits will be obtained by the contractor upon contract award and prior to construction start-up.

2.1.2. Technical Feasibility

Selected Technology

All equipment providers and models have been selected on the merits of performance and cost. The Project has been evaluated for viability based on the use of bankable single-axis tracked photovoltaic technologies. Below is a description of the main components of the Project:

- **Modules:** Canadian Solar 295W polycrystalline photovoltaic modules will be installed and mounted on a single-axis tracking system.
- **Inverters:** The inverters selected for the Project meet the frequency response requirements of the grid. The inverter models that will be used are rated at 500 kW of AC output.
- **Interconnection:** The photovoltaic interconnection switchgear is onsite at 92 kV and will connect to an IID line adjacent to the site.
- **Monitoring and control system:** A SCADA system will be used to monitor remotely, track, and document the performance of the PV system relative to its predicted output. The

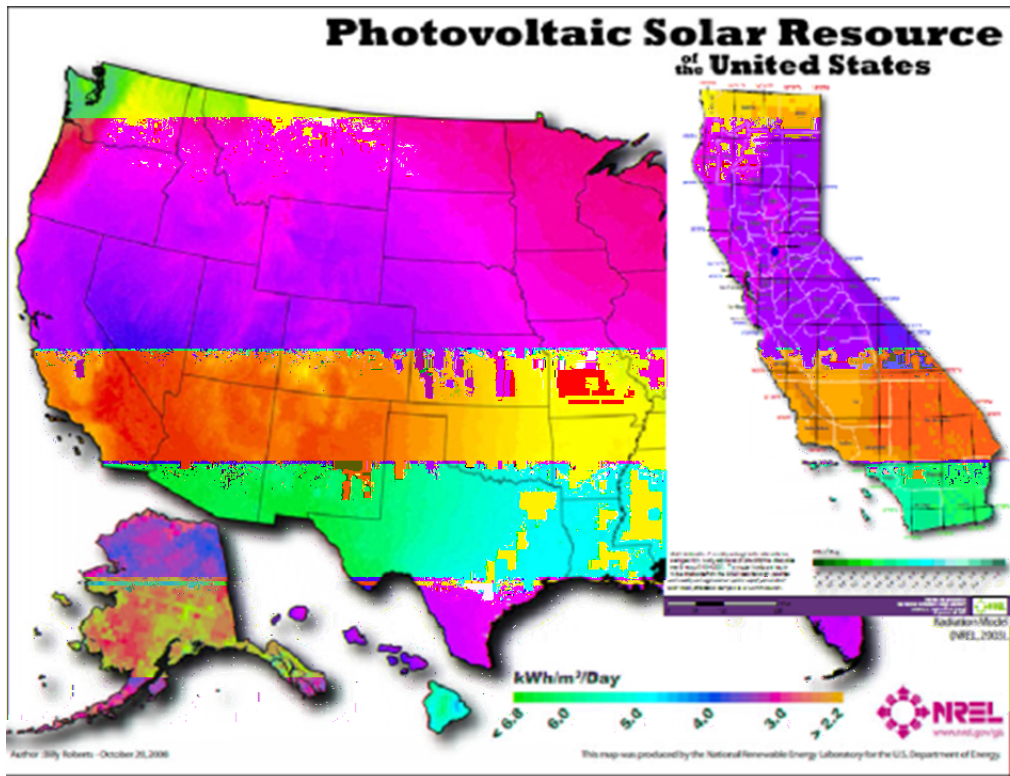
SCADA system will also be used at the interconnection substation to measure and communicate the delivered power.

NADB's procurement policies require that private-sector borrowers use appropriate procurement methods to ensure a sound selection of goods, works and services at fair market prices and that their capital investments are made in a cost-effective manner. As part of its due diligence process, NADB will review compliance with this policy.

Solar Resource Assessment

The Project is located in Imperial County, California, which boasts some of the best solar resources in the world. According to the National Renewable Energy Laboratory ("NREL"), the photovoltaic solar resource in El Centro ranges from 6 to 7 kWh/m²/day (see Figure 7).

Figure 7
PHOTOVOLTAIC SOLAR RESOURCE



The Project's energy production was calculated using Photovoltaic System ("PVSyst") software, published by the University of Geneva, Switzerland. A 1-MW solar plant performance study was developed. Based on the results of this study, it is estimated that the 20-MW Project will generate over 50,000 MWh of electricity in the first year of operation. Performance losses due to DC to AC conversion, dust, inverter losses and shading were taken into consideration. The energy generation estimate will be vetted by an independent engineer.

2.1.3. Land Acquisition and Right-of-way Requirements

The Project site is located in El Centro, Imperial County, California. The land is leased from IID and is comprised of four parcels totaling approximately 131 acres. Three parcels of the Project site are located north of West Villa Road and west of Dogwood Road. The fourth parcel is located south of West Villa Road, east of North 3rd Street, north of Euclid Avenue and west of the IID El Centro Generating Station. The majority of the Project site is undeveloped, although some portions have been previously disturbed through weed abatement. The surrounding area consists of land designated for various uses, including agricultural, commercial, industrial,

required prior to approval of the annexation. LAFCO will consider the annexation application based on the previous activities.

Additional permits will be required for the Project:

- Construction permit;
- Construction Storm Water Permit;
- Encroachment Permit;
- Streambed Alteration Agreement Permit; and
- National Pollutant Discharge Elimination System Permit.

Documentation related to the acquisition of permits, as well as land use and zoning approvals, will be required prior to loan disbursement.

2.1.4. Management and Operations

T-Solar is one of the leading independent power producers in the world. Its installed capacity is one of the largest worldwide with 229 MW under operation, construction and roll-out in Spain, Italy, India, Peru, California and Puerto Rico, and more than 810,000 modules installed. T-Solar will ensure that the installation of the solar array and related infrastructure will be industry standard and will also provide onsite project management and coordination between SOI1 and all contractors.

The Project will be designed to operate automatically with minimal human intervention. Maintenance activities would involve regular visual inspections, equipment servicing and minor repairs. Overall, minimal maintenance requirements are anticipated.

Security, mitigation and landscaping activities required for operation and maintenance are expected to include:

- Vegetation and Site Management. Onsite vegetation will be managed by typical landscape maintenance techniques, including the application of herbicides and manual weeding.
- Panel Washing and Landscape Irrigation. Solar panels will be washed with softened and de-ionized water, typically twice a year, with water drawn from the new City of El Centro water pipeline located within the Project site.
- Erosion Control. Maintenance personnel will use water mixed with erosion and dust control additives acting as soil-binding agents, which will be applied biannually.
- Security. Chain-link fencing with three strands of barbed wire will be installed along the perimeter of the site. A remotely monitored intrusion detection system will also be employed. Two gated access points will be locked and accessible to allow emergency, operations and maintenance activities.

The Sponsor signed a service and maintenance agreement for implementation of these activities in January 2013.

2.2 ENVIRONMENTAL CRITERIA

2.2.1. Compliance with Applicable Environmental Laws and Regulations

Applicable Laws and Regulations

Given that the Project will be constructed on state-owned land, the formal environmental clearance process for the Project is the California Environmental Quality Act and includes compliance with the California Department of Fishing and Game (CDFG) Lake and Streambed Alteration Program and the Clean Water Act, all of which are described below.

California Environmental Quality Act (CEQA)

The CEQA was enacted in 1970 and incorporated into Public Resources Code §§21000-21177. Its purpose is to inform governmental decision-makers and the general public about potentially significant environmental effects of proposed activities; require changes in projects through the use of alternatives or mitigation measures, when feasible; and disclose to the public the reasons why a project was approved, if significant environmental effects result from the project's development. CEQA is applicable to projects undertaken, funded, or requiring an issuance of a permit by a public agency.

California Department of Fishing and Game (CDFG) Lake and Streambed Alteration Program

CDFG is the agency responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. The Fish and Game Code (Section 1602) requires an entity to notify CDFG of any proposed activity that may substantially modify a river, stream, or lake, by issuing a Notification of Lake or Streambed Alteration. The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel, including ephemeral streams, desert washes, and watercourses with a subsurface flow.

Clean Water Act (CWA)

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Originally enacted as the Federal Water Pollution Control Act of 1948, the legislation was significantly reorganized and expanded in 1972 to establish goals for eliminating releases of high amounts of toxic substances into water, eliminating additional water pollution by 1985, and ensuring that surface waters would meet standards necessary for human sports and recreation by 1983. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

Environmental Studies and Compliance Activities

The development of any project that is not exempt from the CEQA must include the preparation of an "Initial Study" by a lead agency to determine whether the project may have a significant adverse effect on the environment. If adverse effects are detected, the lead agency must prepare an environmental impact report (EIR). When no substantial evidence is found for such effects or they can be reduced to a level of insignificance through project revisions, a "negative declaration" can be adopted (Section 21080). In this case, the lead agency, the City of El Centro Community Development Department, is responsible for the Initial Study. The following environmental reports were prepared to evaluate the potential impacts and mitigation requirements of the Project:

- Aesthetics. The study concluded that there are no significant natural topographic features, scenic vistas or other significant aesthetic qualities within the Project area. Agricultural operations are adjacent to the northern portion of the site (although separated by a considerable buffer zone) and do not represent a significant part of the scenic view. Construction and operation activities are expected to have a minimal impact on the general view of the site, are considered as *less than significant* and do not require mitigation measures.
- Agriculture and Forestry Resources. The portion of the site located south of West Villa Avenue is within El Centro and does not have any agricultural zoning. The portion located north of West Villa Avenue is an unincorporated area of Imperial County and currently zoned as general agriculture with an urban overlay. The El Centro General Plan designates this portion of the site as planned industrial. The Sponsor filed an application to annex the county lands and include them within the City of El Centro's jurisdictional boundary. Implementation of the Project would not affect the active agricultural operations located north of the Project site.
- Air Quality and Greenhouse Gas Emissions. This study was conducted to evaluate the environmental impacts of the Project related to criteria air pollutants or greenhouse gases emissions. The assessment was carried out according to the CEQA California Public Resources Code, Section 21000, and follows guidance provided by the Imperial County Air Pollution Control District (ICAPCD). The assessment concluded that the expected impacts will be *less than significant* during construction activities.
- Biological and Hydrological Resources. The purpose of the study was to determine the inventory of biological resources at the site, including the possible existence of endangered, threatened, sensitive or species of concern within Project area. General biological surveys, a focused burrowing owl survey and a preliminary jurisdictional delineation were conducted in the first months of 2012. As a result, the burrowing owl (*Athene cunicularia*), a specie of concern listed by the CDFG, was observed on site and within the 500-foot buffer zone. In order to relocate the burrows, an Encroachment Permit application was filed to install six (6) artificial burrows adjacent to the road in between the northern parcels.

No federal or state botanical or zoological endangered or threatened species were found within the 131-acre Project site areas or buffer zone. Riparian habitats have been identified in the Project area and will require measures to mitigate impacts, including an application for a Section 1600 Streambed Alteration Agreement Permit.

The study also included hydrological resources. No washes or wetlands were observed on site; therefore, no jurisdictional waters of the U.S. will be impacted and the Project will not require authorizations from the U.S. Army Corps of Engineers (Clean Water Act, Section 404) or the California Regional Water Quality Control Board (Clean Water Act, Section 401).

Measures proposed to mitigate impacts are described in the “Mitigation of Risks” section.

- Cultural Resources. A record search was conducted for the purpose of identifying potential historical resources that could be affected by the proposed Project, such as known cultural and paleontological resources based on available data from the South Coastal Information Center, the San Diego Natural History Museum and pedestrian surveys. The records search indicated that there are no previously recorded cultural resources within the Project area. However, a pedestrian survey of the Project area identified 15 historic-period resources, but no prehistoric artifacts were found.

A second Cultural Resources Evaluation was performed to assess four of the identified historic-period resources. The record search and fieldwork revealed that none of the four resources meet the criteria for eligibility under the California Register of Historical Resources (CRHR). As a result, no mitigation measures are required. Due to previous ground disturbance and tilling of agricultural fields, the extent of disturbance to the Project area from modern-era occupation, and the lack of prehistoric or historic artifacts found on the surface or during subsurface testing, the archaeological sensitivity of the Project area is low, and archaeological monitoring is not required.

Measures proposed to mitigate impacts are described in the “Mitigation of Risks” section, including the requirement to cease construction activities and initiate archeological monitoring should any evidence of sensitive resources be found through construction activities.

- Geology and Soils. According to the U.S. Department of Agriculture (USDA), the Project site has moderately well-drained and well-drained soil containing silty clay, silty clay loam, and clay loam lacustrine (lakebed) deposits. These types of soils present engineering and construction challenges and typically require conditioning to support structural footings and foundations. Construction and operation activities are expected to have *less than significant* impacts. Measures proposed to mitigate impacts are described in the “Mitigation of Risks” section.
- Greenhouse Gases. This study was conducted to determine the impacts related to greenhouse gases (GHG) emissions. It was determined that the operation of the Project

will reduce GHG emission by 29% when compared to the existing energy consumption baseline.

- **Hazardous Materials.** A Phase I Environmental Site Assessment was conducted in conformance with American Society for Testing and Materials (ASTM) Designation E1527-05, to evaluate the presence of any existing, historical, or threatened release of hazardous substances or petroleum products into structures, soil, and/or groundwater beneath the Project site. The Phase I ESA revealed no evidence of the presence of *recognized environmental conditions* in connection with the Project site.⁸
- **Hydrology and Water Quality.** This study noted that the construction of the Project, which includes grading and other ground disturbing activities, could result in soil erosion. The Sponsor will apply for a National Pollutant Discharge Elimination System (NPDES) Permit and subsequently prepare a Storm Water Pollution Prevention Plan (SWPPP) that would address erosion. The Project's impacts to hydrology and water quality *would be less than considerable* and do not require mitigation measures.
- **Mineral Resources.** The Project site is not located on or adjacent to a known mineral resource or area designated by the State Geologists as a Mineral Resource Zone; therefore, the Project will not impact any mineral resource.
- **Noise.** A noise study was conducted utilizing the Roadway Construction Noise Model, which considers the estimated noise levels of construction equipment and vehicles. Mitigation measures are considered and described in the "Mitigation of Risks" section.

Based on the information presented in the Initial Study, an Environmental Determination was issued by the City of El Centro Community Development Department in October 2012. It was determined that a Mitigated Negative Declaration would be applicable to the Project given the potential effects can be reduced to a level of insignificance through Project revisions, including proposed mitigation measures.

Pending Environmental Tasks and Authorizations

Formal environmental authorization for the Project, through the adoption of the Final Mitigated Negative Declaration (MND), is pending. The process requires publication of the final document and formal consideration by the local governing body of the lead agency. The Final MND was posted on the website of the lead agency on December 13, 2012. On January 8, 2013, the City's Planning Commission approved a resolution determining that the project would have no significant effect on the environment and ordered that the MND be filed in accordance with CEQA guidelines. The only remaining activity to complete this authorization is the City Council's consideration for final decision scheduled for February 2013.

⁸ ASTM defines *recognized environmental conditions* as "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."

Compliance Documentation

The following compliance documentation is available for the Project:

- Final Mitigated Negative Declaration
- Planning Commission Resolution No. 13-01 for Mitigated Negative Declaration No. 12-02
- Air Quality and Greenhouse Gas Emissions Study
- Biological Resources Evaluation
- Cultural Resources Class I Records Search
- Phase I Environmental Site Assessment
- Conceptual Drainage Study
- Noise Data Modeling Calculations
- Traffic Impact Study

2.2.2. Environmental Effects/Impacts

There is a need for affordable and environmentally beneficial alternatives to conventional fossil fuel-derived energy sources. Renewable energy projects create an opportunity to generate electricity without the atmospheric emissions generated by fossil fuel-based plants. Sunlight is a source of renewable energy, which means it can be produced without the depletion of natural resources. It is a clean form of renewable energy and is currently used in many developed and developing nations to meet their demand for electricity. Solar power does not produce waste byproducts that require disposal or gas emissions that contribute to air pollution. It does not pollute or consume water for electricity production. Water may be used in small amounts for the cleaning of panels from time to time. Any water used for cleaning purposes will be disposed of at appropriate facilities and in accordance with environmental regulations. Solar energy projects provide an opportunity to displace greenhouse gases (GHG) and other pollutants produced by traditional fossil fuel-based energy generation, while providing local residents with a safe and reliable energy alternative.

Existing Conditions and Project Impact – Environment

Historically, the United States has depended to a great extent on fossil fuels for the generation of energy. This conventional source of energy adversely affects the environment due to the harmful emissions produced in the generation process, including GHG and other pollutants, such as sulfur dioxide (SO₂) and nitrogen oxides (NO_x).

Current electricity generation in California relies on a mix of energy production technologies including: coal (7.7%), natural gas (41.9%), nuclear (13.9%), other renewables (13.7%), hydroelectric (10.8%) and others (12.0%). Based on nearly 204 million MWh of net power generation in California in 2010, 55.4 million metric tons of CO₂ and 80,000 metric tons of NO_x were emitted.

Table 3
 2010 CALIFORNIA ELECTRIC POWER INDUSTRY GENERATION

| Energy Source | Total Generation 2010 (MWh) |
|---|-----------------------------|
| Natural Gas | 107,522,313 |
| Coal | 2,100,221 |
| Petroleum | 1,059,289 |
| Other Gases ¹ | 1,694,641 |
| Nuclear | 32,200,757 |
| Hydroelectric | 33,430,870 |
| Other Renewables ² | 25,278,456 |
| Other ³ | 839,048 |
| ¹ Other gases include blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels. | |
| ² Other Renewables includes biogenic municipal solid waste, wood, black liquor, other wood waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy, and wind. | |
| ³ Other includes non-biogenic municipal solid waste, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, tire-derived fuels and miscellaneous technologies. | |
| Note: Totals may not equal sum of components because of independent rounding. | |
| Source: U.S. Energy Information Administration, Form EIA-923, "Power Plant Operations Report" and predecessor forms. | |

The Project will help reduce the demand for fossil fuel-fired electricity, and since solar power generation has zero fuel cost, zero emissions and zero water use, it will displace harmful emissions. Over the next 25 years, the production of approximately 1,159,170 MWh of zero-carbon generation will help avoid the emission of more than 314,705 metric tons of CO₂ into the atmosphere. The anticipated environmental outcomes include the installation of new renewable energy generation capacity (20.0 MW_{AC} or more than 50,000 MWh of electricity in year 1); and an expected displacement of more than 13,678 metric tons/year of carbon dioxide and 21 metric tons/year of nitrogen oxides.

Mitigation of Risks

Some minor environmental impacts are anticipated from the implementation of the Project. The impacts are considered “less than significant with mitigation incorporated” and will be managed according to the following mitigation measures considered in the Final Mitigated Negative Declaration:

- Air Quality. Measures are to be implemented in accordance with Imperial County Air Pollution Control District (ICAPCD) Regulation VIII regarding the prevention of fugitive dust, including:
 - A Dust Control Plan and an Operational Dust Control Plan will be presented to the ICAPCD.
 - All disturbed areas, unpaved roads and bulk material storage shall be stabilized using water, chemical stabilizers, dust suppressants, tarps or other suitable material.

- Bulk materials shall be completely covered for transport. The cargo compartment of all haul trucks shall be cleaned or washed at delivery site.
- Idling time of construction equipment and vehicles shall be minimized.
- Biological Resources. The following measures will be considered to mitigate impacts to burrowing owls, birds and riparian habitats:
 - A pre-construction survey shall be performed by a qualified biologist within 30 days of the start of construction of the Project.
 - Staff will be trained on CDFG regulations and burrowing owls protection actions.
 - Appropriate distance between active burrows and construction activities should be kept during the non-nesting season (September through January).
 - IID's mitigation guidelines for burrowing owls shall be followed in the event occupied and/or active burrows are found.
 - No activities around active nests shall occur if birds protected under the Migratory Bird Treaty Act are found.
 - If active raptor nests are found, a biological monitor shall be present on site to ensure that no direct take of the nests occur.
 - Disturbed CDFG riparian habitats in the site shall be compensated within the City of El Centro.
- Cultural Resources. In the event that unknown buried cultural resources are discovered during construction, all construction activities shall cease until a City/County archaeologist can be summoned to determine whether the unearthed resource requires further study. The archeologist shall make recommendations to the lead agency regarding specific measures to be implemented to protect the discovered resource. No further construction activities shall occur until the lead agency approves the measures to protect these unearthed resources.
- Geology and Soil. the Project must comply with the mandatory obligations of the Uniform Building Code, Uniform Mechanical Code and National Electric Code to ensure structural integrity during seismic events.
- Noise. The following mitigation measures will be considered during the construction of the Project:
 - All construction equipment shall be maintained in good mechanical condition and shall use available noise suppression devices and mufflers. Equipment shall be placed away from sensitive noise receptors.
 - The Sponsor shall comply with the City of El Centro's vibration standard during installation of the Project structures. Any alternative method to reduce vibration shall be subject to City of El Centro approval.

- During construction, the Sponsor shall comply with the City of El Centro's Noise Ordinance for Single-family Residential Zones by buffering the construction noise.
- Traffic. Prior to the issuance of a building permit, the Sponsor shall prepare a Construction Traffic Management Plan in coordination with the City of El Centro. The Management Plan will be aimed at reducing the number of trips accessing the Project site during peak hours.

Natural Resource Conservation

The Project will support natural resource conservation by improving air quality and reducing the demand on fossil fuels for energy production. The Project is anticipated to produce nearly 50,000 MWh of zero-carbon electricity in the first year of operation, equivalent to the annual energy consumption of approximately 7,500 households. In addition, clean technologies such as solar energy require no water for electricity production, whereas fossil fuel-fired generation is typically water intensive.

No Action Alternative

The no action alternative to the development of renewable energy sources would result in greater demand for conventional fossil fuel-based energy production, further depleting natural resources for the purposes of meeting an ever-growing demand for energy, as well as a lost opportunity to generate emission-free energy, such as that derived from solar energy.

Additionally, the Project will help meet California's RPS requirements and comply with GHG emission legislation, while satisfying increased demand for electricity. Should the Project not be implemented, the mix of renewables in IID's portfolio would be delayed and the intent of California's GHG emission reduction goals could be affected.

Existing Conditions and Project Impact – Health

Epidemiological research has shown that both chronic and acute exposure to harmful emissions associated with fossil fuel-based energy production can lead to serious respiratory problems. It is estimated that, at the very least, prolonged exposure to excessive levels of pollutants can deteriorate the respiratory capacity of humans and greatly contribute to the increased incidence of cardiopulmonary diseases, such as asthma, heart ailments, and lung cancer.

By using clean renewable resources instead of conventional fossil fuel sources in power generation, the Project will positively impact the region by reducing pollutants and thus help to contain the severity of respiratory and other diseases aggravated or caused by air pollution. In addition, the reduction of GHG emissions is expected to mitigate climate effects that create more vulnerable conditions for human health.

Transboundary Effects

No negative transboundary impacts are anticipated as a result of the development of the solar energy project; on the contrary, a beneficial effect is anticipated on the air quality due to the decreased demand on fossil-fuel-fired electrical plants in the region. Furthermore, the Project will aid in addressing the larger environmental concerns related to greenhouse gases and global warming targeted by international agendas.

Other Local Project Benefits

During construction, the Project is expected to generate approximately 150 jobs; during operation, 2-4 permanent jobs are expected to be created.

2.3. FINANCIAL CRITERIA

The Project Sponsor has requested a loan from the North American Development Bank (NADB) to complete the financing of the Project. The proposed payment mechanism is consistent with the project structure normally seen in the U.S. renewable energy industry. The source of payment will be the revenue generated by the Project in accordance with the pricing established under the Power Purchase Agreement (PPA) signed with IID for a term of 25 years. NADB loan will have no recourse beyond the Project Company, Sol Orchard Imperial 1, LLC ("SOI1").

NADB performed a financial analysis of the source of payment, IID; the proposed payment structure; and the Project's cash flow projections over the 25-year term of the PPA. IID's financial ratios show that the community owned IID enjoys favorable credit ratings. IID's most recent bond issuances have been rated A+ by Fitch and A1 by Moody's, both with stable outlooks, showing a good credit quality.

The Project's expected revenue from the sale of electricity is estimated to be sufficient to: a) cover scheduled O&M expenses, b) fund any Debt Service Reserve, c) pay the debt service on the senior loan, and d) comply with debt service coverage requirements.

In addition, NADB's analysis verified that SOI1 has the legal authority to contract financing and pledge its revenue for the payment of financial obligations. SOI1 also has the legal and financial capacity to operate and maintain the Project based on the experience provided by its parent company. SOI1 is evaluation to contract the Project's O&M services with a firm with ample experience and expertise in these types of projects. NADB has verified that the projected O&M costs and contract warranties are in accordance with industry standards.

Considering the Project's characteristics and based on the financial and risk analyses performed, the proposed Project is considered to be financially feasible and presents an acceptable level of risk. Therefore, NADB proposes providing a market-rate loan for up to US\$67.6 million to Sol Orchard Imperial 1, LLC for the construction of the Project described herein.

3. PUBLIC ACCESS TO INFORMATION

3.1. PUBLIC CONSULTATION

BECC released the Draft Project Certification and Financing Proposal for a 30-day public comment period beginning December 21, 2012. The public comment period ended on January 20, 2013 with no comments received. The following Project documentation is available upon request:

- Final Mitigated Negative Declaration
<http://www.cityofelcentro.org/communitydevelopment/index.asp?m=1&page=24>
- Air Quality and Greenhouse Gas Emissions Study
- Biological Resources Evaluation
- Cultural Resources Class I Records Search
- Phase I Environmental Site Assessment
- Conceptual Drainage Study
- Noise Data Modeling Calculations
- Traffic Impact Study
- Planning Commission Resolution No. 13-01 for Mitigated Negative Declaration No. 12-02
- Planning Commission Resolution No. 13-02 for General Plan Amendment No. 12-01
- Planning Commission Resolution No. 13-03 for Change of Zone No. 12-01
- Planning Commission Resolution No. 13-04 for Conditional Use Permit No. 12-04 (a)
- Planning Commission Resolution No. 13-05 for Conditional Use Permit No. 12-04 (b)

3.2. OUTREACH ACTIVITIES

In addition to the public comment period, the environmental authorization process as well as the activities required to obtain a CUP and land use approvals require formal public outreach efforts. Under CEQA, the Lead Agency must conduct a public process which includes publication of documents for review and comment as well as direct consultation as required for determining the direction of necessary environmental studies.

The City of El Centro, as Lead Agency, worked with the Project sponsor to prepare the Initial Study and the recommended environmental determination, which in this case is a Mitigated Negative Declaration (MND). During the Initial Study, of the 17 topical environmental issues required by CEQA guidelines, the Sponsor's consultant conducted several activities including the development of specific studies and consultation with relevant agencies. Additionally, the consultation efforts by the City of El Centro included a Tribal Consultation List Request to the Native American Heritage Commission (NAHC). Based on this list and in accordance with the

State Tribal Consultation Guidelines, the City of El Centro consulted with applicable Native American groups.

After an evaluation of the Initial Study, a draft MND was made available for public review from October 2 through November 9, 2012. During the public review, seven letters commenting on the MND were received, all of which are included in the Final MND along with responses from the City of El Centro. The Final MND is available on the City of El Centro website.

As described in Section 2.1.3, to complete the MND and land use processes, there are a series of public meetings related to the Project with the City's Planning Commission, City Council and with the Imperial County LAFCO, providing an opportunity for public comments to be considered for final decisions. The agenda for each meeting is published on the City's website and posted at City's offices at least 10 days prior to the meeting date. As documented by the resolutions approved by the City's Planning Commission, there were no objections stated or filed with the Commission for any of the proposed actions related to the Project. Once the CUPs are approved by the City Council, there will be a 30-day period to allow for public challenges to the approval. Finally, an additional public forum will be provided by the LAFCO meeting to complete the annexation process.

BECC conducted a media search to identify potential public opinion about the Project. References to the Project were found on several Internet sites, including the *PV Magazine*, *PV Tech*, *KSWT News* and *RECHARGE*. Some of the information highlights T-Solar's interest in expanding the renewable energy industry in several countries, such as Peru, India, Puerto Rico and the United States. In general, the media coverage included a reference to T-Solar's announcement of its project in El Centro, California, which upon completion would be producing more than 50 GWh a year. No opposition to the Project was detected in the media search.