



CERTIFICATION AND FINANCING PROPOSAL

OCOTILLO EXPRESS WIND ENERGY PROJECT IN IMPERIAL COUNTY, CALIFORNIA

Submitted: October 1, 2012

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EXECUTIVE SUMMARY

OCOTILLO EXPRESS WIND ENERGY PROJECT IN IMPERIAL COUNTY, CALIFORNIA

Project:	Construction and operation of a 265.5 MW wind farm located in Imperial County, California (the “Project”). The energy will be purchased by San Diego Gas & Electric (“SDG&E”) in San Diego, California, 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 environmental and human health outcomes anticipated for the Project include 265.5 MW of new renewable energy generation capacity; >646,000 MWh/year (adjusted gross energy); and an expected displacement of more than 175,000 metric tons/year of carbon dioxide and 264 metric tons/year of nitrogen oxides. ¹
Sponsor:	Pattern Renewables LP (“Pattern Renewables”).
Borrower:	Ocotillo Express LLC (“Ocotillo Express”).
Communities Benefitted:	San Diego and Imperial Counties, California
Population Benefitted:	3,233,841

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

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1. ELIGIBILITY

Project Type

The Project falls in the category of clean and efficient energy. The energy generated will reduce demand on traditional fossil-fuel-based energy production, contributing to the displacement of greenhouse gas emissions and other pollutants from power generation using conventional fossil-fuel technologies.

Project Location

The Project site is located within eight miles of the U.S.-Mexico border in Imperial County, California.

Project Sponsor and Legal Authority

The private-sector project sponsor is Pattern Renewables LP (“Pattern Renewables” or the “Sponsor”), a subsidiary of Pattern Energy Group LP. Pattern Renewables created a special-purpose company named Ocotillo Express, LLC (“Ocotillo Express”) for the implementation of the Project.

According to its Certificate of Formation, filed on July 10, 2009, Ocotillo Express is a Delaware-registered, limited liability company and possesses the legal authority to implement the Project, contract financing, and pledge the Project’s revenues as a source of repayment for any financial obligations. On July 27, 2009, Ocotillo Express was registered in the state of California to perform its commercial purposes. The Sponsor representative is Mr. Daniel M. Elkort, Vice President of Pattern Renewables.

2. CERTIFICATION CRITERIA

2.1 TECHNICAL CRITERIA

2.1.1. Project Description

Geographic Location

The Project is located in Imperial County and will be constructed within a right-of-way boundary covering approximately 12,500 acres of lands administered by the Bureau of Land Management (BLM). A small portion of the Project's underground electrical collection system will be built on land that is privately owned. Imperial County, in the far southeast area of the state of California, borders San Diego County to the west and the state of Baja California, Mexico to the south. The Project is located 5 miles west of the unincorporated community of Ocotillo and 26 miles west of the city of El Centro, the seat of Imperial County. Figure 1, below, shows the approximate geographical location of the Project.

Figure 1
PROJECT VICINITY MAP



The 12,500 acres are part of the California Desert Conservation Area (CDCA). **The site consists of vacant and undeveloped desert land that is currently used for recreational activities. Based on a site visit in May 2010, recreational activities include camping, off-highway vehicle (OHV) use, and target shooting.** Development in the surrounding area includes the rural communities of Ocotillo and Nomirage, and the wallboard and gypsum manufacturing facility of the United States Gypsum Corporation (known as Plaster City) to the east. The western boundary of the site is bordered by the Anza-Borrego Desert State Park, which is managed by California State Parks.

General Community Profile

The Project is expected to directly benefit Imperial County by generating employment and taxes stimulated by the construction and operation of the Project, as well as the County of San Diego, where the power generated by the Project will be consumed.

According to the 2010 census, the population of San Diego County and Imperial County was 3,095,313 and 174,528, respectively, which together account for 8.7% of the state's population. The city of San Diego and Chula Vista are the two largest cities in San Diego County, together accounting for 50% of its population. El Centro and Calexico are the two largest cities in Imperial County, together accounting for 46.5% of its total population.²

The population of both counties, 3,233,841 people, will benefit from the proposed Project, since the citizens of San Diego County will have access to renewable energy, while Imperial County residents will benefit from the anticipated economic development and the growth of the tax base. The Project is expected to provide sufficient electricity for the equivalent of more than 120,000 households.³

In terms of median household income (MHI), in 2010, Imperial County reported US\$41,802 and San Diego County reported US\$59,923. The San Diego MHI is the highest of any U.S. border county and compared favorably to that of California (US\$ 57,708) and the U.S. (US\$50,046), whereas Imperial County is significantly lower in both cases.⁴ Education, health and social services are the main source of employment in the area, representing 23.5 % of the working population in Imperial County and 21% in San Diego County.⁵

According to the U.S. Department of Labor, in February 2012, the unemployment rate in the San Diego area was 9.3%, higher than the national average of 8.3%. The unemployment rate in Imperial County was 26.7%, which is among the highest in the United States. The Project is expected to generate approximately 350 direct jobs during construction, as well as approximately 17 permanent, full-time jobs during operation, with an additional 10 temporary employees or contractors for approximately 12 weeks per year.

Local Energy Profile

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.⁶

² Source: U.S. Census Bureau, 2010 – Population Division.

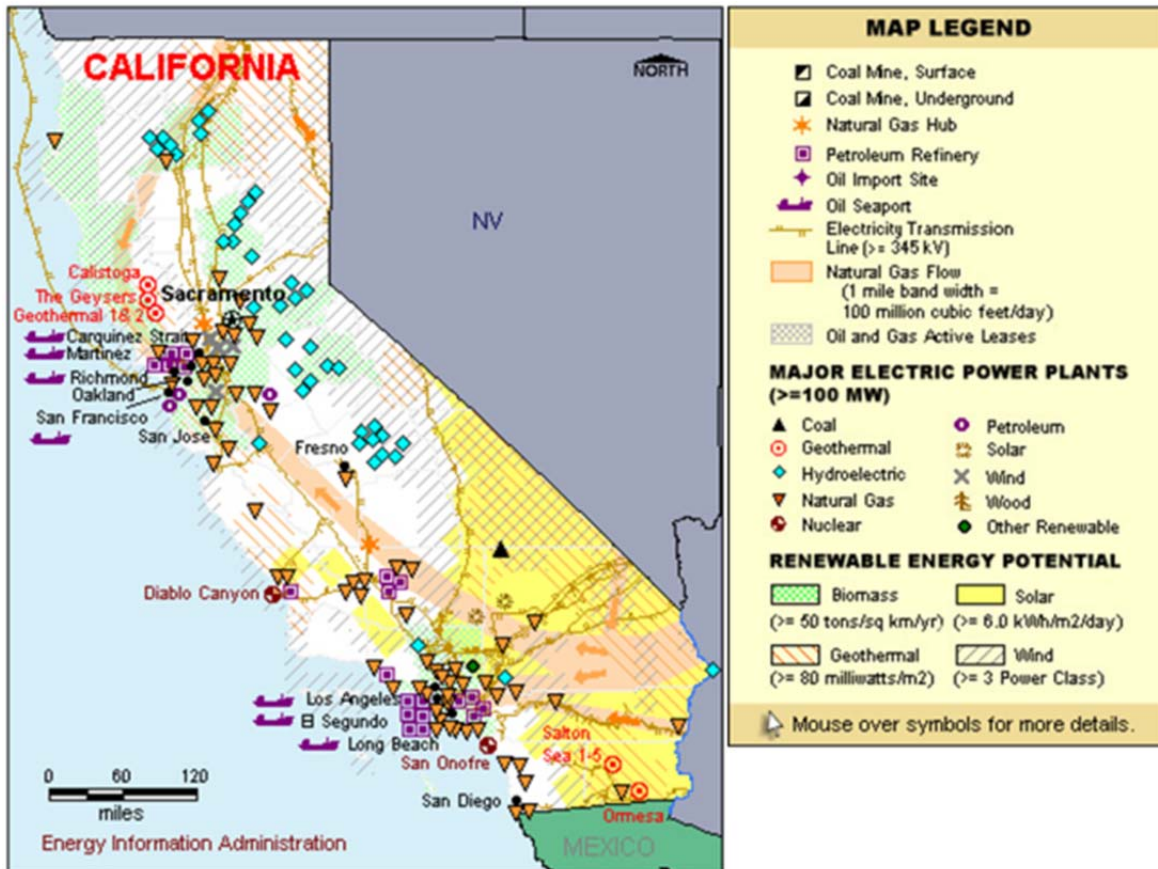
³ According to Sponsor estimates.

⁴ Source: U.S. Census Bureau, 2010 - Population Division.

⁵ Source: US Economic Census 2007 - Economic Census.

⁶ Source: U.S. Department of Energy, Energy Information Administration (EIA), State Energy Profiles – California, 2009.

Figure 2
 CALIFORNIA'S ENERGY SOURCES



According to the California Energy Commission, California leads 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.⁷

The electricity generated by the Project will be sold to San Diego Gas & Electric (SDG&E), a wholly-owned subsidiary of Sempra Energy. For more than 125 years, SDG&E has been providing energy services in the San Diego region. With a service area spanning 4,100 square miles and covering most of San Diego County and part of Orange County, SDG&E currently serves 1.4 million electric customers and 850,000 natural gas customers, representing 3.5 million people.⁸ Figure 3 illustrates SDG&E's service area.

⁷ California Energy Commission, Energy Consumption Data Management System Energy, Energy consumption in California. <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>.

⁸ Source: <http://sdge.com/aboutus>.

Figure 3
SDG&E SERVICE AREA



Over the past 12 years, SDG&E has maintained an active capital investment program aimed at providing sufficient and reliable power to its customers, including investments in renewable and other clean sources of power generation, as follows: 13 renewable power facilities (mainly biogas) providing approximately 75 MW to the grid; nearly 90 MW of small-scale solar power plants, mostly located on business and residential rooftops; and four large cogeneration facilities with a total capacity of 157 MW.

Table 1 shows the energy mix for SDG&E compared to the state energy mix:

Table 1
SDG&E's ENERGY MIX

Energy Resources	SDG&E* (2009)	CA Mix** (2009)
Natural Gas	38.0%	41.9%
Nuclear	18.0%	13.9%
Other Renewables	11.0%	13.7%
Cogeneration	8.0%	-
Coal	3.0%	7.7%
Hydroelectric	-	10.8%
Other purchased power	22.0%	12.0%
Total	100%	100.0%

* Source: World Resources SIM Center, 2009 Customer Energy Mix.

** Source: California Energy Commission, *Total Electricity System Power, 2010*

SDG&E is part of the California Independent System Operator (CAISO), which manages the flow of electricity across the high-voltage, long-distance power lines that make up 80% of California's power grid. CAISO provides open and non-discriminatory access to the bulk of the state's wholesale transmission grid, supported by a competitive energy market.

CAISO 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 Corporation

Due to the size and diverse characteristics of the region, WECC and its members face unique challenges in coordinating day-to-day interconnected system operations and the long-range planning needed to provide reliable power service across nearly 1.8 million square miles. CAISO evaluates both off-peak and on-peak deliverability scenarios to determine base cases that consider all the connected facilities. **Renewable energy generation facilities have priority over gas turbines or combined-cycle generation facilities.** In a typical off-peak scenario, renewable energy generation facilities will be on-line, while the remaining energy generation required will be supplied by the lowest cost generation facilities. On-peak scenarios are more complex. Renewable energy generation facilities, as in off-peak scenarios, will be on-line, but the remaining energy generation required is supplied using criteria which consider the following factors:

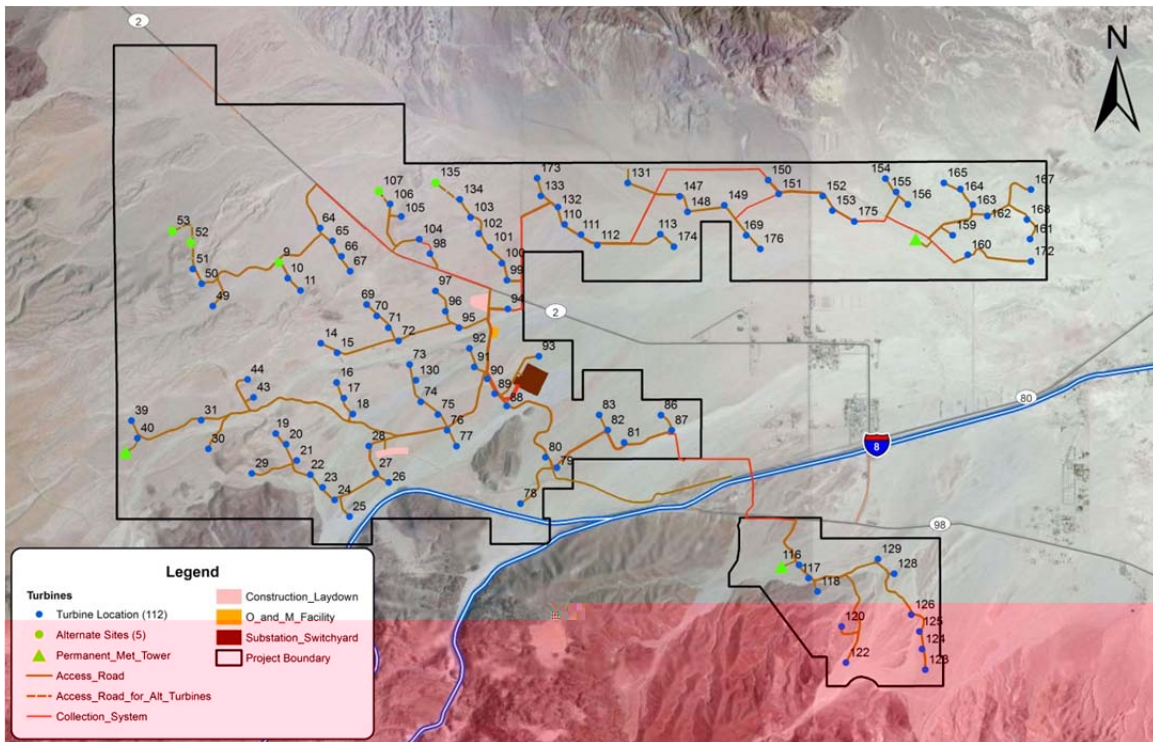
- Interconnected existing capacity suppliers deliver 80% to 95% of their net qualified capacity (NQC) in a typical on-peak scenario. CAISO is able to selectively increase the output up to 100% of NQC and scale down the output proportionally with the control area capacity resources.
- Interconnected suppliers in the modality of “full capacity” deliver 80% to 95% of their qualified capacity (QC) in a typical on-peak scenario. CAISO is able to selectively increase the output up to 100% of QC but cannot scale down the output proportionally with the control area capacity resources.
- Interconnected suppliers in the modality of “energy-only” have a minimum commitment and dispatch to balance load and maintain expected imports. CAISO is not able to selectively increase the output, but can scale down the output proportionally with the control area capacity resources.

After renewables, CAISO makes available the electricity supplied by the lowest cost generation facilities as a priority in supplying energy according to the demand.

Project Scope and Design

The scope of the Project is to design, build, and operate a 265.5 MW wind farm. The Project consists of generating clean energy using 112 wind turbines located on approximately 12,500 acres of BLM-managed land in Imperial County, California. The electricity generated will be purchased by SDG&E pursuant to a 20-year Power Purchase Agreement (PPA). The Project will be connected to the new 115-mile SDG&E Sunrise Powerlink 500-kV transmission line scheduled for completion in 2012. Figure 5 shows the Project’s site layout.

Figure 5
PROJECT SITE



The wind farm has been designed to maximize the use of available wind resources. The design conforms to current national and international standards and applicable laws. The Project is expected to begin construction by June 2012, with partial commercial operation initiating in December 2012 and full commercial operation in April 2013. Table 2 presents a non-exhaustive list of key tasks.

Table 2
PROJECT MILESTONES

Key Milestones	Status
Wind resource assessment	Completed
Balance of Plant Agreement - Ocotillo-Blattner Energy, Inc.	Signing in process
Turbine Supply Agreement - Siemens	Completed
Service Maintenance Agreement - Siemens	Negotiated; signing in process
PPA with SDG&E	Completed
Interconnection Agreement with CAISO	Completed
Environmental Impact Statement/Report and public consultation (NEPA/CEQA)	Completed
BLM Record of Decision, Right of Way grant and Notice to Proceed	Completed
Lease of private land	Completed
Construction permits	In process
Independent engineer report	In process
Commercial Operation Date (COD)	April 2013

2.1.2. Technical Feasibility

Selected Technology

For this Project, different types of technologies available in the wind turbine market, as well as different site design layouts, were evaluated taking into consideration the site characteristics, wind resource, total energy costs, equipment performance and cultural and environmental impacts. Current technologies allow for more efficient and reliable power generation, as well as greater production at average wind speeds, in part due to an increase in blade size and improved blade designs.

Below is a description of main components of the Project:

- **Turbines:** The proposed Project includes 112 wind turbines, each one with the following specifications:⁹
 - 2.37 MW nominal power
 - 108 m rotor diameter
 - 80 m hub height
 - 3 m/s wind speed self-start
 - 25 m/s wind speed self-stop

- **Towers:** The towers will be tapered tubular steel structures manufactured in three or four sections depending on tower height, and 4.3 to 4.5 m in diameter at the base. A service platform at the top of each section will allow access to the tower for routine inspection. A ladder inside the structure will ascend to the nacelle to provide access for turbine maintenance.

⁹ Siemens SWT 2.37-108.

- Blades/rotor: The diameter of the circle swept by the blades will be no more than 113 meters. The turbines will be equipped with a braking system designed to halt the rotor under all foreseeable upset conditions. The turbines also will be equipped with a parking brake to keep the rotor stationary while maintenance or inspection is performed.
- Monitoring and control system: Each turbine will be equipped with a computer control system to monitor variables, such as wind speed and direction, air and machine temperatures, electrical voltage, currents, vibrations, blade pitch, and yaw (side to side) angles. The control system will always be in operation to ensure that the machines operate efficiently and safely.

Additionally, each turbine will be connected via fiber optic cables to a central Supervisory Control and Data Acquisition (SCADA) system.¹⁰ The SCADA system allows individual turbines and the wind plant as a whole to be controlled and monitored from a central host computer or a remote personal computer. In the event of problems, the SCADA system can also send signals to alert operations staff, as well as the CAISO and SDG&E.

- Foundations: A steel-reinforced concrete foundation will support each wind turbine. Each turbine will require land for a permanent 18 x 30 meter crane pad and a 23-meter diameter area (0.3 acre) for the tower.
- Operation and maintenance facility: A 3.4-acre O&M facility will be located in the central portion of the proposed Project site. The O&M building and yard will be constructed to store critical spare parts and provide a building for maintenance services. The facility will include four permanent administrative, maintenance and storage building structures, in addition to control buildings for the substation and switchyard. An observation tower approximately 15 meters high will be constructed at the O&M facility and will serve as the control room for the on-site biologist, who will have a commanding 360-degree view of the entire site for monitoring eagle activity.
- Roads: Up to 42 miles of permanent roads will be constructed to allow circulation within the proposed Project area and provide access to each turbine, the utility switchyard, loop-in structures and the O&M building. The permanent roads will be 6.1 meters wide, but during construction will be up 11 meters in width. The roads will consist of compacted native material, but may also require approximately 4 to 6 inches of aggregate and/or geo-synthetic material to provide the soil strength needed for construction. The disturbed areas outside the final roadway width will be graded and compacted for use during construction, and then decompact and stabilized at the conclusion of Project construction.

¹⁰ SCADA Siemens Web-WPS.

Planned access routes into the Project site include Imperial Highway (S2), a temporary road north of highway I-8 and adjacent to the railroad, and/or the existing by-pass road north and east of the community of Ocotillo. Currently, at the end of Evan Hewes Highway there is an unpaved road that will be used during construction. Improvements will be made to this road to meet the road standards described above. The roads and O&M building were included in the design used in the environmental assessment of the Project.

- Medium-voltage grid: The power generated by the wind turbine at 600 to 1000 V will be stepped up to 34.5 kV using a transformer attached to each turbine for collection within the park. Then the generated electricity will be transmitted to the substation using 23 underground circuits.
- Substation and interconnection: An on-site substation will further step up the electricity generated to 500 kV for final delivery to the SDG&E grid. The substation will be adjacent to the interconnection utility switchyard, which will include circuit breakers, switches and relay protection. In turn, the switchyard will connect the wind farm to the SDG&E Sunrise Powerlink 500-kV transmission line with 1,000 MW of capacity, which crosses the Project site and is scheduled to be completed in 2012. The point of interconnection will be located just east of the San Diego/Imperial County border.

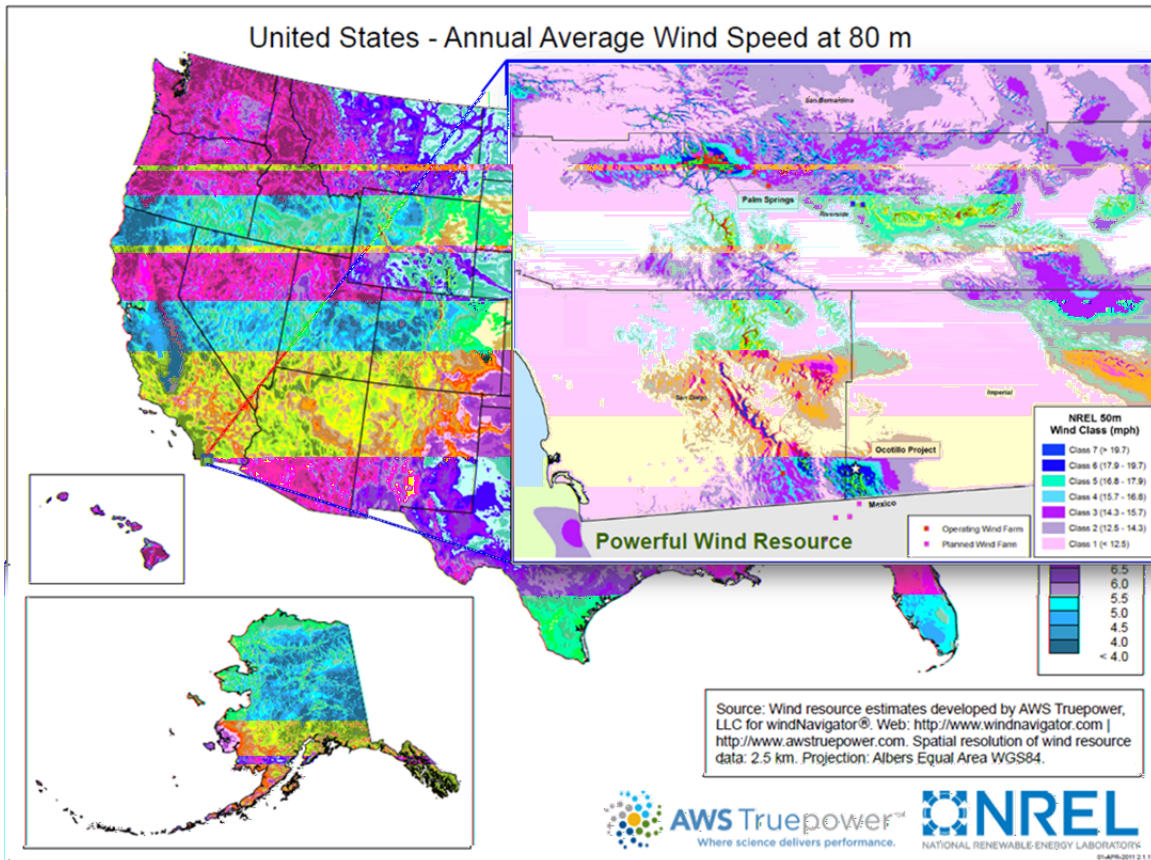
The procurement of contracts for this Project is being carried out by its parent company Pattern Renewables. The procurement of turbines will be obtained through the master supply and commissioning agreement already signed with Siemens. Pattern defined the best option based on selection criteria that included the total cost of energy, the warranty and O&M services provided and subject to certain technology standards, such as turbine suitability analysis, wind resource, environmental mitigation requirements, financial strength of the manufacturer, and construction schedule needs. Pattern Renewables selected the BoP provider based on its qualifications, experience in the region and warranty services. Blattner Energy is an experienced contractor with a track record of over 15 GW of installed wind capacity since it began operations in 1997. Blattner has built the vast majority of the wind farms constructed in the U.S. and has served as the engineer, procurement and construction (EPC) contractor in more than 10 projects in California, seven of which were in the southern California desert.

In this case of private sector borrowers, NADB's procurement policies require the Bank to "satisfy itself that private sector borrowers use appropriate procurement methods to ensure a sound selection of goods and services, works and consulting 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.

Wind Resource Assessment

The region where the Project will be located has excellent wind resources. The area boasts strong winds, with annual mean wind speed in the neighborhood of 6.2 m/s at 80 m hub height. According to the National Renewable Energy Laboratories (NREL), the Project area's wind resources compare favorably to that of the best areas in southern California with existing wind farms, as illustrated in Figure 6.

Figure 6
WIND RESOURCE POTENTIAL



In order to review and model available wind resources in the Project area, five metrological (met) towers were installed to collect data, including wind speed, wind direction, and ambient temperature. Data from two remote sensing instruments were also included in the wind resource study. All five met towers and the two remote sensing instruments are located within close range of the proposed locations for the turbines.

Four anemometers were installed in each met tower (10, 30, 50 and 60 meters high). The data studied from each tower was gathered over a period of 12 to 21 months. The available met tower data was compiled, validated and incorporated into the wind resource analysis, which measured wind speed changes at different altitudes.

The energy estimated to be produced using the selected technology was assessed in the Project area by an independent consultant. The results of this assessment support the installation and adequate performance of the wind farm and will be vetted for accuracy and related risks by an independent engineer.

2.1.3. Land Acquisition and Right-of-way Requirements

The Project site is located on land administered by the BLM, which is designated for limited use as part of the California Desert Conservation Area. A portion of Imperial Highway runs northwest to east through the proposed site, and Interstate 8 crosses a portion of the southern area of the site. The BLM-managed land consists of two areas: the main northwestern site (Site 1) with an approximate acreage of 11,269 and the smaller southeastern site (Site 2) with acreage of 1,167. The site consists of vacant and undeveloped desert land that is currently used for recreational activities. Based on a site visit by the project sponsor representative in May 2010, recreational activities include camping, off-highway vehicle (OHV) use, and target shooting.

The Secretary of the Interior is authorized to grant ROWs on public land for power generation, transmission and distribution systems. An application for ROW authorization for the Project was filed with the BLM for the construction, operation, maintenance, and decommissioning of a 465-megawatt (MW) wind energy farm, including a substation; switchyard; administration, operations and maintenance facilities; transmission infrastructure, and temporary construction lay-down areas.¹¹ The BLM authorized use of the public land for the Project through a 30-year Right-of-Way Grant (ROW) issued on May 11, 2012.

In addition to the BLM-managed land, a small portion of land needed for the Project is private property that has been leased by the Sponsor. Due to Sponsor's efforts to eliminate impacts on cultural resources, turbine locations on private land were eliminated from the proposal. The private land will only be used for access to the site and construction of a portion of the underground power collection system.

Implementation of the proposed Project requires approval from Imperial County as the entity enforcing environmental and public health and safety measures applicable to the construction and operation of the Project. On April 25, 2012, Imperial County's Board of Supervisors approved an agreement to implement the environmental mitigation measures developed jointly with the BLM through the review processes established under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). The Board specifically disclaimed zoning and land use jurisdiction over the federal lands (negating the need to issue a conditional use permit (CUP) and zoning variance) and found that the improvements on private land were allowed under the applicable zoning.

A Determination of No Hazard to Air Navigation (DNH) was issued for each turbine location by the Federal Aviation Administration; however, the location of 11 turbines and two met towers has been re-filed. The corresponding DNH authorizations are pending and anticipated for May 2012.

¹¹ The initial scope of this Project was for 465 MW, which has since been reduced based on alternative studies to minimize environmental and historical preservation impacts. The original dimensions of the project site remain unchanged, but no additional Project phases are being considered at this time.

Ocotillo Express has applied for a ROW to use the existing by-pass road, and is arranging a road-use agreement with the private mining companies who also have ROWs for the by-pass road.

Permits related to Project implementation, such as building permits from the local governing agency and rights-of-way related to federal or state transportation corridors, will be obtained prior to construction, as is normally the case in construction activity.

2.1.4. Management and Operations

For construction, the Sponsor has selected a Balance of Plant (“BoP”) approach since the turbines have been procured and contracted separately.¹² The scope of work includes the site development works and the construction of all access roads; the construction of the wind turbine foundations; the erection of the wind turbines; the installation of the entire energy collection system, including transmission lines from the turbines to the wind farm’s substation; the construction of that substation; the installation of the SCADA system and the construction of all buildings on the site.

The Project will be directly operated by an on-site Pattern Renewables management team, backed by a Project Administration Agreement signed with its affiliated operating company.¹³ Approximately 17 permanent, full-time jobs are expected to be created, with an additional 10 temporary employees or contractors expected to be onsite for approximately 12 weeks per year. Market-standard warranties have been secured on the turbines, BoP and the main transformer.

The computer control system for each turbine will perform self-diagnostic tests allowing a remote operator to ensure each turbine is functioning at peak performance. Annual maintenance procedures will consist of inspecting wind turbine components and fasteners. Annual maintenance activities requiring the temporary shutdown of turbines will be coordinated to occur during periods of little or no wind to the extent possible, in order to minimize reductions in the amount of overall energy generation.

Routine maintenance activities will consist of visual inspections, oil changes, and gearbox lubrication. For operation, inspection and maintenance, five or six service vehicles will normally be used. Project access roads will be graded as necessary to facilitate operations and maintenance. In addition to grading, the application of new gravel may be necessary to maintain road surfaces.

The Project will be connected to the Sunrise Powerlink transmission line. CAISO requires its utilities to keep their transmission line structures in good operational condition. For this task, SDG&E will use the main access road to the Project substation to access the 500-kV switchyard.

¹² The purchase, supply, delivery and commissioning of the turbines and associated infrastructure for the Project are covered by the executed agreement between Siemens Energy, Inc. and Pattern Renewables.

¹³ Pattern Operators, LP.

2.2 ENVIRONMENTAL CRITERIA

2.2.1. Compliance with Applicable Environmental Laws and Regulations

Applicable Laws and Regulations

National Environmental Policy Act (NEPA)

In processing ROW applications, the BLM must comply with the Department of the Interior's regulations applicable to implementing the procedural requirements of NEPA (43 CFR Part 46), as well as the BLM's NEPA Handbook (H-1790-1; January 2008).

California Environmental Quality Act (CEQA)

The CEQA was adopted in 1970 and incorporated into the Public Resources Code §§21000-21177. Its purpose is to inform governmental decision-makers and the public about the 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 are involved. CEQA applies to projects undertaken, funded or requiring an issuance of a permit by a public agency.

Federal Land Policy and Management Act (FLPMA)

The FLPMA provides the BLM's overarching mandate to manage the lands and resources under its stewardship based on the principles of multiple use and sustained yield. The Secretary of the Interior is authorized to grant ROWs on public land for power generation, transmission, and distribution systems (Section 501(a)(4)). A FLPMA ROW application has been submitted by Ocotillo Express to construct, operate, maintain, and decommission a wind energy-generating facility and associated infrastructure on public lands administered by the BLM in compliance with the FLPMA and BLM ROW regulations.

National Historic Preservation Act of 1966 (NHPA), as Amended

The NHPA is legislation intended to preserve historical and archaeological sites and requires federal agencies with jurisdiction over a proposed federal project to take into account the effect of the undertaking on cultural resources listed or eligible for listing on the National Register of Historic Places and requires that the agencies afford the State Historic Preservation Office (SHPO), any potentially affected Native American tribe, and the Advisory Council on Historic Preservation an opportunity to comment on the undertaking. This is known as the Section 106 Review (16 USC 470).

California Renewables Portfolio Standard (RPS)

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% by 2020 was confirmed by Governor Arnold Schwarzenegger in the Executive Order S-14-08. In 2009, the California Air Resources Board (CARB) under its Assembly Bill 32 authority was directed by Executive Order S-21-09, to enact regulations to achieve the goal of 33% renewables by 2020.

In order to achieve the 33% goal by 2020, in April 2011, Senate Bill X1-2 was signed by Governor Edmund G. Brown, Jr. This new RPS replaces the previous CARB's 33 percent goal and applies to all electricity retailers in the state. Entities, including publicly-owned utilities (POUs), investor-

owned utilities (IOU), electricity service providers, and community aggregators, must adopt the new RPS goals of 20% of retail sales from renewables by the end of 2013, 25% by the end of 2016, and the 33% by the end of 2020.

Environmental Studies and Compliance Activities

A joint NEPA/CEQA process was undertaken for the Ocotillo Wind Project, with the BLM and Imperial County acting as NEPA and CEQA leads, respectively, and Aspen Environmental Group acting as the NEPA/CEQA contractor. In order to fully comply with this process, a comprehensive Environmental Impact Statement study, jointly with a CEQA Environmental Impact Report was performed by Ocotillo Express (EIS/EIR). The CEQA EIR was certified by the Imperial County Board of Supervisors on April 25, 2012. As part of this process, Ocotillo Express has conducted the environmental studies and surveys described below:

- **Archaeological Survey:** A BLM Class III archaeological survey was conducted for the entire Area of Potential Effects (APE) directly impacted by the Project. Intensive surveys were used to methodically inventory these areas and to record the archaeological resources identified therein. Records include the detailed documentation of all identified resources, their boundaries and location, potential significance, appearance and integrity of each resource, and the method of survey. **As archaeological resources were identified within the direct impact APE, the location of turbines was modified to avoid them, and new direct-impact APE areas were surveyed and substituted for the avoided areas.**
- **Livestock grazing:** According to the 2010 Geocommunicator on the BLM website, there are no livestock grazing allotments located within or adjacent to the proposed Project site or ROW application area. The McCain Valley rangeland allotment is located approximately three miles southwest of the proposed Project site, in San Diego County. **As such, the proposed Project site will not contain or traverse any established grazing land.**
- **Mineral resources:** The Mineral Resources Database System (MRDS), administered by the U.S. Geological Survey (USGS), indicates that an active sand and gravel production site called “Ocotillo Plant” is located within the proposed action site boundary. The data shows the Ocotillo Plant roughly in the middle of the proposed action site, directly east of the Rail Unloading Area and directly south of the Batch Plant. **However, based on detailed biological field surveys conducted by HELIX Environmental Planning, there are no active mines within the Project boundaries.**
- **Noise:** Data collection was conducted through review of Pattern Renewables’ permit application (Pattern Renewables, 2010). The study area was defined as the proposed Project site and areas within approximately one mile of the proposed Project site. Roadways accessing the Project area were also included, such as Interstate 8 (I-8), Evan Hewes Highway, Highway 98 (SR-98), and Imperial Highway (County Highway S2). Noise mitigation measures required for the Project are described in the “Implementation Agreement” executed with Imperial County.

- Paleontological resources: **Based on the records of the San Diego Natural History Museum (SDNHM), Anza-Borrego Desert State Park Desert District Stout Research Center (ABDSP-DSRC), and the Natural History Museum of Los Angeles County (LACM), no previously recorded fossil localities occur within the Project area**, although ten previously recorded fossil localities occur immediately adjacent to the Project area, and numerous other localities have been documented in the same geologic units at other locations in Imperial Valley.
- Soil: Based on the Preliminary Geotechnical Investigation prepared for the proposed Project, the Project site and Yuha Desert surface material is composed of silts, sands, limited clays, gravels, cobbles and boulders. Quaternary lake deposits, alluvium, stream channel deposits, fan deposits, and Pleistocene non-marine deposits comprise the majority of the material with local origin from the Inkopah and Jacumba Mountains to the west and south and from the Coyote Mountains to the north. The thickness of alluvial sediments around the proposed Project site appear to range from 50 feet or less at the edge of the mountains, upwards to 350 feet in the cross-section near the deeper middle alluvial fan portions of the site.
- Vegetation resources: Vegetation mapping within the proposed Project site was done through a combination of field surveys and aerial photo interpretation. The aerial photos were scaled at 1" = 400'. Vegetation data points were taken with a global positioning system (GPS) to aid in aerial photo interpretation. There are limitations to aerial photo interpretation in the desert as the surface soils and geology often are more influential on the aerial photograph signature than the vegetation. The BLM required that the National Vegetation Classification System (NVCS) be used for the Proposed Action. The Manual of California Vegetation, 2nd Edition (MCV) is the California extension of the NVCS.¹⁴ The mapping units used reflect the system presented in the MCV.
- Water resources: Observed surface waters on the proposed Project site are streams and wetlands. The proposed Project is located within the Imperial Valley Planning Area of the Colorado River Basin Hydrologic Region. Major surface water features in the region include the Colorado River (east of the Project site), the Salton Sea (north of the Project site), the New River (east of the Project site), the Alamo River (east of the Project site), and several major canals, including the West Side Main Canal, Central Main Canal, East Highline Canal, All American Canal, and Coachella Canal.
- Wild horses and burros: The BLM administers wild horses and burros as guided by the Wild Free-Roaming Horse and Burro Act of 1971, including the management of Herd Areas (HA) and Herd Management Areas (HMAs). **According to the 2010 Geocommunicator on the BLM website and the 2006 BLM map for HAs and HMAs in southern California, there are no HAs or HMAs located within or adjacent to the proposed Project site or ROW application area.**

¹⁴ Manual of California Vegetation, 2nd Edition, Sawyer et al., 2009.

- **Wildland fire ecology:** The Project is within an area of sustained strong winds according to the National Renewable Energy Laboratory, and this factor contributes to the ranking of the project site as a moderate and high fire hazard severity zone. Fire Hazard Severity Zones (FHSZs) are areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors that have been mapped by the California Department of Forestry and Fire Protection (CAL FIRE). The Project is located in lands under the jurisdiction of BLM within a moderate FHSZ. **Fire risk at the Project site is expected to be moderate, and the potential for a major fire to occur in the area surrounding the Project site is also moderate.**

- **Wildlife resources:** Several surveys were conducted resulting in the identification of Rosy boa, Red-diamond rattlesnake, Flat-tailed horned lizard, Cooper’s hawk, Sharp-shinned hawk, Golden eagle, Long-eared owl, Burrowing owl, Brant, Ferruginous hawk, Swainson’s hawk, Vaux's swift, Northern harrier, Yellow warbler, willow flycatcher, Merlin, Prairie falcon, American peregrine falcon, Loggerhead shrike, Osprey, Brewer's sparrow, Le Conte’s thrasher, Western mastiff-bat, Peninsular bighorn sheep, and American badger, among others with a low frequency of observation. Mitigation and protection measures will be implemented in accordance with regulations and best management practices as described below and in the various plans available for consultation listed in section 3.1.

Pending Environmental Tasks and Authorizations

The following formal authorizations are in the process of being obtained for the Project:

**Table 3
 PENDING ENVIRONMENTAL AUTHORIZATIONS**

Authority	Permit/Authorization
Federal Aviation Administration (FAA)	– Determination of No Hazard to Air Navigation (11 turbines pending)

Compliance Documentation

Formal authorizations have been obtained and impact mitigation plans developed for the Project as follows:

- BLM Record of Decision (DOI Control Number: No. FES 11-20; Publication Index Number: BLM/CA/ES-2011-15+1793)
- BLM Right-of-Way Grant and Notice to Proceed, serial number CACA 051552
- Determinations of No Hazard to the Flight Navigation by the FAA (excluding the 11 pending)
- United States Army Corps of Engineers. Nationwide Permit 12, Clean Water Act Section 404

- National Pollutant Discharge Elimination System Permit 713C363445
- Memorandum of Agreement among the BLM-California, USACE, Ocotillo Express, California State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the Ocotillo Express Wind Energy Project, Imperial County, California.
- BLM Cultural Use Permit (CA-10-21)
- Avian and Bat Protection Plan
- Eagle Conservation Plan
- Archeological Monitoring Plan
- Nesting Bird Mitigation and Monitoring Plan
- Integrated Weed Management Plan
- Ocotillo Tribal Participation Plan
- Bighorn Sheep Mitigation and Monitoring Plan
- Habitat Vegetation Plan
- Agreement to Implement Health, Safety and Environmental Measures (“Implementation Agreement”) – Imperial County (4820-5892-1743.1)
- Formal Section 7 Opinion on the Proposed Ocotillo Express Wind Project Imperial County, California (3031-P) CAD000.06, U.S. Fish and Wildlife Service (USFWS)
- Streambed Alteration Agreement, California Department of Fish and Game (CDFG), Notification Number 1600-2011-0192-R6 (Revision 2)

2.2.2. Environmental Effects/Impacts

There is a need for affordable and environmentally beneficial alternatives to conventional fossil-fuel-derived energy sources. Additionally, renewable energy projects create an opportunity to generate electricity without the same atmospheric emissions generated by fossil-fuel-based plants.

Wind is a source of renewable energy, which means it can be produced without 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. Wind power does not produce waste byproducts that require disposal or gas emissions that contribute to air pollution. It does not consume or pollute water. No water is expected to be used for turbine cooling during normal operation. Water may be used in small amounts for the cleaning of turbines from time to time. Any water used for cleaning purposes will be disposed of at appropriate facilities and in accordance with environmental regulations. The Project provides an opportunity to displace greenhouse gases (GHG) and other pollutants produced by traditional fossil-fuel-based energy generation, while providing the residents of the border region 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 energy development can affect the natural environment due to the harmful emissions related to the generation process, including the release of GHG, as well as other pollutants, such as sulfur dioxide (SO₂) and nitrogen oxides (NO_x).

Current electricity generation for the residents of 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, 3,000 metric tons of SO₂, and 80,000 metric tons of NO_x were emitted.

**Table 4
 2010 CALIFORNIA ELECTRIC POWER INDUSTRY GENERATION**

Energy Source	Total Generation 2010 (MWh)
Coal	2,100,221
Petroleum	1,059,289
Natural Gas	107,522,313
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.	

Because wind power has zero fuel cost, zero emissions and zero water use related to energy generation, the Project will help reduce the demand for fossil-fuel-fired electricity, and thus displace related harmful emissions. For the next 20 years, the production of 646,000 MWh/year of zero-carbon generation will help avoid the emission of nearly 3.5 million metric tons of CO₂ into the atmosphere. The anticipated environmental outcomes include new renewable energy generation capacity (265.5 MW; >646,000 MWh in year 1) and an expected displacement of more than 175,000 metric tons/year of carbon dioxide and 264 metric tons/year of nitrogen oxides¹⁵.

¹⁵ SO₂ emission reductions are not calculated for this Project because its emission factor is minimal based on California’s energy generation portfolio. According to EIA, California’s SO₂ emission factor is less than half of the smallest unit of measure: 0.5.

Mitigation of Risks

The impacts associated with the construction, operation, maintenance, and decommissioning of wind turbines at the Project site are fully disclosed and analyzed in the EIS/EIR. Adverse impacts associated with implementation of the project can be avoided or substantially reduced based on compliance with applicable laws, ordinances, regulations and standards, and compliance with measures provided in the Final EIS/EIR and related mitigation plans. The following specific mitigation tactics will be employed to reduce anticipated environmental effects.

- Impacts to sensitive vegetation communities/habitats:
 - Disturbed areas shall be revegetated according to a Habitat Restoration/Revegetation Plan (HRRP) approved by the BLM and wildlife agencies
 - Biological monitoring shall be conducted during Project construction. A designated biologist shall be employed for construction and post-construction monitoring; habitat restoring annual reports must be prepared.
 - Permanent impacts to sensitive vegetation communities shall be compensated through a combination of compensation and restoration at a minimum 1:1 ratio or as required by the permitting agencies.
- Impacts to the surroundings: A Fugitive Dust Control Plan shall be developed and implemented in accordance with BLM and Imperial County standards.
- Impacts to the aviation: Night lighting during construction and O&M shall be minimized by using shielded directional lighting to the extent necessary to meet FAA standards.
- Impacts to Flat-Tailed Horned Lizard (FTHL) and Barefoot Banded gecko habitats:
 - To the maximum extent practicable, grading in FTHL habitats shall be conducted from March 1 through September 30, or when ground temperatures are between 75 and 100 degrees Fahrenheit. FTHLs shall be removed from harm's way during all construction activities. The purchase of FTHL habitats and/or monetary compensation, as determined by the FTHL Interagency Coordinating Committee, may be required.
 - A Raven Control Plan shall be prepared and implemented for the portion of the proposed Project within occupied and assumed occupied FTHL habitats.
 - The Designated Biologist or Biological Monitor(s) shall evaluate and implement the best measures to reduce FTHL and other wildlife species mortality.
 - No later than January 31 of each year the proposed Project remains in operation, the Designated Biologist will provide an annual FTHL Status Report to the BLM's Authorized Officer, USFWS, CDFG, and the FTHL Interagency Coordinating Committee.

- Prior to the start of construction, all areas not previously surveyed for Barefoot Banded gecko shall be surveyed in accordance with the survey protocol for the species (CDFG 2010a).
- Impacts to the Burrowing owl:
 - Prior to the start of construction, all areas shall be surveyed during the Burrowing owl breeding season, in accordance with the California Burrowing Owl Consortium (CBOC) Guidelines (1993).
 - Construction piping or any other construction material with a diameter greater than three inches shall be capped or covered if the piping or materials are to be stored in staging areas or temporary impact areas for more than three days.
 - The loss of 26 acres of Burrowing owl foraging habitat within 300 feet of occupied burrows shall be mitigated at a 1:1 ratio through a combination of off-site habitat compensation, on-site revegetation of temporary impact areas, and/or on-site or off-site restoration of disturbed habitats.
 - A survey shall be conducted within 30 days prior to the initiation of construction by a qualified biologist to determine the presence or absence of the Burrowing owl in the construction zone, plus 250 feet beyond.
- Impacts to avian and bats:
 - The Project Sponsor developed and shall implement an Avian and Bat Protection Plan to address the impact of the proposed Project on special status avian and bat species and shall submit the plan to the BLM, USFWS, and CDFG for review and approval prior to initiation of Project construction. A biological consultant approved by the agencies shall be retained for post construction monitoring.
 - Vegetation clearing shall take place outside of the general avian breeding season (February 15-September 1), when feasible.
 - The Project Sponsor has developed an Eagle Conservation Plan to address the impact of the proposed Project on Golden eagles and to provide guidance for all required Golden eagle mitigation and monitoring prior to, during, and after construction of the Project. The measures described are intended to help protect and reduce potential impacts during construction, as well as to monitor potential impacts, on Golden eagles following implementation of the project. The installation of a state-of-the-art radar will support eagle activity monitoring during operations. In addition, a 15-meter tower will be installed in the park with a commanding view for the biologist, who will also be able to receive data feeds from the radar, video tracker and radio telemetry feeds in real time while monitoring. The tower will include a mechanism to shut down turbines in case of eagle proximity.
 - Project transmission lines shall conform to Avian Power Line Interaction Committee (APLIC) standards for collision-reducing techniques.

- A Wildlife Mortality Reporting Program shall be developed to be approved by the BLM. This program shall be implemented during O&M and calls for the identification and reporting of any dead or injured animals observed by personnel conducting O&M activities.
- Impact to lambing areas and foraging areas:
 - Temporary impacts to 129.5 acres of USFWS Essential Habitat for Peninsular Bighorn Sheep (PBS) from the Proposed Action shall be mitigated at a 1:1 ratio through revegetation of all temporary impact areas.
 - 43.9 acres of USFWS Essential Habitat would be compensated at a 1:1 ratio by purchasing or restoring Essential Habitat from private landowners.
 - Prior to construction, a Bighorn Sheep Mitigation and Monitoring Plan shall be submitted to the BLM, USFWS, and CDFG for review and approval.
 - An approved biological consultant will serve as the Bighorn Sheep Monitor of construction activities.
 - An approved biological consultant will collect data on PBS movements in the Project area during the construction phase. The approved biologist will evaluate and implement the best measures to minimize PBS disturbance.
 - No later than January 31 of each of the first three years the Project remains in operation, the approved biologist will provide an annual PBS Status Report to the BLM's Authorized Officer, USFWS, and CDFG.
- Impact to the American badger: A qualified biologist shall survey for American badger, concurrent with the pre-construction survey for the Burrowing owl.
- Impact to USACE jurisdictional lands and CDFG jurisdictional areas: The Project Sponsor shall prepare and implement a Jurisdictional Mitigation Plan to describe measures for mitigating impacts.

Natural Resource Conservation

The Project will help displace the atmospheric emissions generated by fossil-fuel-fired electrical plants since wind energy is generated without the emissions of CO₂ and NO_x. In addition, clean technologies such as wind energy require no water for electricity production, whereas fossil-fuel-fired generation is generally water intensive.

To offset potential impacts of its infrastructure investments, SDG&E has supported the preservation of land and natural resources. Recently SDG&E purchased close to 10,000 acres of property in San Diego and Imperial Counties, including properties on El Cajon Mountain, at Long Potrero, and near the Anza-Borrego Desert State Park. With these purchases it is expected to protect six federally listed, three state listed and one California species of concern, such as the Peninsular Bighorn Sheep and the Least Bell's Vireo.

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 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 wind 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, SDG&E's steady growth of renewables 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 electrical power generation, the Project will positively impact the region by reducing pollutants and thus helping 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 wind 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 350 direct jobs. During operations, the Project is expected to generate 17 permanent, full-time jobs with an additional 10 temporary employees or contractors expected to be onsite for approximately 12 weeks per year.

Additionally, the Project is expected to increase tax revenue for Imperial County and its residents. Beneficiaries may include Imperial County, Imperial Valley College, Imperial Unified School District, County Fire Protection, Imperial County Office of Education and the County Library System.

2.3. FINANCIAL CRITERIA

The Project Sponsor has requested a loan from the North American Development Bank (NADB) for up to US\$110 million to complete the financing of the Project. NADB's loan will complement a commercial loan. 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 SDG&E for a term of 20 years. NADB loan will have no recourse beyond the Project company, Ocotillo Express.

NADB performed a financial analysis of the source of payment, SDG&E; the proposed payment structure; and the Project's cash flow projections over the 20-year term of the PPA. Its strong financial ratios show that SDG&E has the revenue capacity to meet its financial obligations under the PPA. SDG&E is presently rated A/Stable by FitchRatings, A2/Stable by Moody's, and A/Stable by Standard & Poor's, which reflects a strong 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 senior loans, and d) comply with debt service coverage requirements.

In addition, NADB's analysis verified that Ocotillo Express has the legal authority to contract financing and pledge its revenue for the payment of financial obligations. Ocotillo Express also has the legal and financial capacity to operate and maintain the Project, and will contract the Project's O&M services with an affiliate with ample experience and expertise in these types of projects. NADB has verified that the projected O&M costs 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 of up to US\$110.0 million to Ocotillo Express 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 May 11, 2012. The following available Project documentation was included with the published certification document:

- BLM Record of Decision (DOI Control Number: No. FES 11-20; Publication Index Number: BLM/CA/ES-2011-15+1793)
- BLM Right-of-Way Grant and Notice to Proceed, serial number CACA 051552
- Environmental Impact Statement/Environmental Impact Report (EIS/EIR)
 - Avian and Bat Protection Plan
 - Eagle Conservation Plan
 - Integrated Weed Management Plan
- Determinations of No Hazard to the Flight Navigation by the FAA (11 turbines pending)
- United States Army Corps of Engineers. Nationwide Permit 12, Clean Water Act Section 404
- National Pollutant Discharge Elimination System Permit 713C363445
- Memorandum of Agreement among the BLM-California, USACE, Ocotillo Express, California State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding the Ocotillo Express Wind Energy Project, Imperial County, California.
- BLM Cultural Use Permit (CA-10-21)
- Archeological Monitoring Plan
- Nesting Bird Mitigation and Monitoring Plan
- Ocotillo Tribal Participation Plan
- Bighorn Sheep Mitigation and Monitoring Plan
- Habitat Vegetation Plan
- Agreement to Implement Health, Safety and Environmental Measures – Imperial County (4820-5892-1743.1)
- USFWS Formal Section 7 Opinion on the Proposed Ocotillo Express Wind Project Imperial County, California (3031-P) CAD000.06
- Streambed Alteration Agreement, California Department of Fish and Game. Notification Number 1600-2011-0192-R6 (Revision 2)

As a result of the public comment period, BECC received a total of 15 comments related to the Project, of which nine were received during the comment period and six were received post-

comment period. Comments were submitted by various interested parties, as summarized below.

**Table 8
 COMMENTS RECEIVED ON THE PROJECT**

Institution/Individual	Number of comments
Individuals	4 (plus 2 submittals after the comment period)
Non-governmental Organizations	3 (plus 1 submittal after the comment period)
Viejas Tribal Government	1
Community Advocates for Renewable Energy Stewardship	1
Non-governmental Organization and Community Foundation	2
Media inquiry	1
TOTAL	15

All comments received for the Project were carefully evaluated and considered in the project approval process.

During the public comment period and upon request of local stakeholders, BECC gave a presentation on May 24, 2012 to explain the certification criteria and approval process, specifically providing guidance for submitting project comments. In addition to general opinions provided in the written comments, each submittal was evaluated for topics specifically related to criteria compliance. Taking into consideration the total comments received, the following provides a summary of the questions or concerns specifically related to the certification criteria and eligibility.

Technical Criteria

Comments related to the technical criteria highlighted concerns, include:

- Variances of site, description, and scope.
- Reliability of wind resource data.
- Compliance with design standards considering fault zones and future transmission lines.
- Project Sponsor's operational experience.

BECC/NADB reviewed project documents in consideration of these comments and offers the following related clarifications.

- Project Site and Description: The Project location site limits has not changed, however, a number of proposed turbine sites were eliminated during the course of the permitting process in response to concerns raised by various stakeholders, including requests to create greater setbacks from the community of Ocotillo. Further micro siting (a slight movement of a project feature to avoid construction activities on top of any cultural resources identified during construction monitoring) of turbine locations continues during the construction process, in accordance with the agreements under MOA that

mandates avoidance of impacts on cultural resources when feasible and as part of the Right-of-Way granted by BLM.

In comparing the Project documents, there are no inconsistencies found between the BECC/NADB Project proposal and the BLM ROD. The BLM ROD recognizes Project modifications that have been implemented in accordance with mitigation practices and has determined that these modifications are consistent with the range of alternatives analyzed in the EIS/EIR and do not require additional environmental clearance. The Project size has been reduced and the component locations are determined to avoid impacts to cultural or environmental resources, mitigate impacts where possible, and to minimize land disturbance. The Project's overall location has remained consistent and any moves within the Project boundary have been made within areas that have been or will be reviewed by cultural monitors and other experts to ensure proper placement and compliance with the Project's permits and agreements including the FEIS.

- Wind Resource Assessment: Comments regarding the reliability of wind resource data reference National Renewable Energy Laboratory (NREL) wind resource maps and suggest that the current site does not have adequate resources for Project viability. While these maps are valuable tools for evaluating the wind potential for various regions in the United States, they are not a definitive resource for determining the wind resource at specific locations. For this Project, the Project Sponsor has installed five met towers, utilized both SODAR and LIDAR equipment (this equipment is used to accurately measure wind movement at specific sites), and employed an independent professional wind assessment group to accurately measure the true wind resource on a micro level at the site.

Additionally, the results of the wind resource assessment were reviewed by BLM for the development of the EIS and to confirm the viability of the site for wind energy production, which is further supported by the California Public Utility Commission's (CPUC) resolution approving the PPA under which SDG&E agreed to purchase the electrical output from the Project. The CPUC noted that on-site meteorological data confirmed the Project site's viability.

- Design Standards: The northeast and southeast portions of the Project overlap with Alquist-Priolo (AP) Fault Zones as identified by the California Geological Survey and made public in February 2012. Confirmed seismic fault ruptures and suspected fault scarps are located at the center of these 1000' wide AP Zones. All turbine sites, except two have been located outside of the AP Zones. These two turbines are not planned to be used as part of the final 112 unit layout but are being preserved as potential alternates. The embankments of all turbine excavations are being inspected by a qualified geologist or geotechnical engineer for signs of seismic rupture over-time. The Seismic Fault Investigation Report reiterates these issues and provides more detail

Geotechnical 12bline

A Corridor Conflict Analysis (CCA) was prepared to determine the compatibility of the Project with existing BLM utility corridors and to consider potential conflicts with the existing and approved utility corridors. Per the report recommendations, the Project removed and relocated proposed turbine locations to allow for additional transmission lines to be built within the Project area. The proposed changes were reviewed and deemed acceptable by BLM to ensure adequate space was available for potential future build-out of transmission lines within the Project area. Additional detail on the CCA can be found in Section 4.6.3 of the FEIS.

- Project Sponsor Experience: The Project Sponsor has advised that no projects have been damaged and abandoned. All of Pattern Energy projects are operating well and in compliance with all permits.

Environmental Criteria

Comments related to the environmental criteria highlighted concerns, include:

- Adverse environmental and cumulative effects.
- Implementation of mitigation measures.
- Claims of violations of federal and state processes.

BECC/NADB reviewed project documents in consideration of these comments and offers the following related clarifications.

- Environmental Effects and Mitigation Measures: Regarding potential negative effects of a project, the BECC's certification criteria require that a sponsor document the mitigation of risks to the environment for the proposed project. In the case of Ocotillo, mitigation measures for environmental impacts are described in the FEIS and reflected in the Record of Decision and County Implementation Plan. Per the permitting of the Project, the Sponsor is required to strictly follow these mitigation measures to ensure environmental compliance and minimize impacts to the local community.

The cumulative impacts of the Project for each of the impact categories (i.e. Air Resources, Climate Change, Cultural Resource, etc.) are analyzed in the Environmental Consequences section (Chapter 4) of the FEIS. Of the 291 renewable energy projects proposed in California as of February 2011, 18 projects had been proposed in the BLM's California Desert District—the area where the Project is located. The cumulative impact analysis in the FEIS identified all 18 projects, as part of a 17-page chart identifying more than 100 other project and activities with potential cumulative impacts. The mitigation measures described in the FEIS take into account all impacts of the Project including as well as the cumulative impacts identified.

The Project's decommissioning plan is consistent with the wind industry practice on planning for eventual decommissioning of modern commercial wind farms. The restoration plan for the site was developed by an experienced biological consultant and

was reviewed and approved by both State and Federal agencies and the required decommissioning bond has been posted with the BLM.

In accordance with the Record of Decision, both the anticipated benefits and potential effects of the Project were considered and the DOI and the BLM found that the issuance of the ROW grant to construct the Project is “in the public interest.”

- *Process Violations*: Formal authorizations issued for the environmental clearance process and construction implementation demonstrate the Project’s compliance with applicable laws and regulations, as required by the certification criteria.

Financial Criteria

Comments related to the financial criteria highlighted concerns, such as:

- Financial viability influenced by scope variations and pricing
- Risks related to existing Project litigation.

BECC/NADB reviewed project documents in consideration of these comments and offers the following related clarifications.

Scope variations have been necessary as the sponsor has taken numerous mitigation measures in defining the final placement of the turbines, which includes adequate distance from residences such as half-a-mile buffer zone, as well as relocation of some components to protect cultural or biological resources, as recommended by good industry practices and guided by the ROD. The Project Sponsor will relocate turbines as necessary with the objective of maintaining nameplate capacity to meet the PPA requirement. Because the PPA has a fixed price for electricity and cannot be adjusted downwards for market pressures, minimal risk is anticipated related to the viability of the Project. NADB will verify the adequacy of the final design and final energy capacity through the opinion of an independent engineer with vast experience in the wind energy industry for the purpose of debt sizing.

For concerns related to legal risks of the Project, NADB will evaluate any existing legal proceedings and potential results which could threaten the financial viability and determine the appropriateness of loan execution based on that consideration.

Eligibility

Comments for the Project also included some concerns related to the eligibility of renewable energy projects, as well as the consideration for certification of a project that acknowledges potential impacts. In consideration of these concerns, it is important to note that renewable energy projects are considered an eligible environmental infrastructure sector pursuant to the BECC/NADB charter, given the benefits generated in terms of displacement of fossil fuel sources for generation of electricity, as well as the reduction of greenhouse gas emissions. Projects in renewable energy, such as wind energy, have been accepted internationally as projects that help to preserve the environment by reducing the impact of the carbon footprint in electricity generation and by displacing air pollutants from fossil-fuel powered energy plants.

NEPA/CEQA Public Consultation

Public Scoping Meetings

Public scoping meetings were held on January 5 and 6, 2011, in El Centro and Ocotillo, CA, respectively. Notification for these meetings was published on BLM's website for the Project and in the *Imperial Valley Press* on December 21, 2010. In addition, notices were sent to stakeholders, including the state clearinghouse; federal, state, and local agencies and organizations; local property owners, local libraries; and Native American tribes.

Presentations describing the environmental review process were delivered by representatives of the BLM and the Imperial County. Ocotillo Express also delivered a presentation describing the Project. Approximately 70 and 100 people attended the meetings in El Centro and Ocotillo, respectively, including representatives from local and state agencies, organizations, and private citizens. Thirty-three letters were received during the scoping comment period that ended on February 7, 2011: three from federal, state, and local agencies and organizations; and 30 from individuals.

The BLM produced a scoping report in March 2011, which contains information received during the public scoping comment period.

Joint Draft EIS/EIR

The BLM and Imperial County distributed the joint Draft EIS/EIR for the proposed Project for public and agency review and comment on July 8, 2011. The comment period ended October 6, 2011. A total of 405 comment letters, including e-mails, were received. Eight comment letters were received after the close of the comment period. In connection with the Section 106 and government-to-government processes, the lead agencies committed to fully consider any additional comments submitted by federally recognized Native American Tribes through February 17, 2012.

Section 106 of the National Historic Preservation Act (NHPA)

With respect to the public involvement process under Section 106 of the NHPA, the Notice of Intent for the Project published in the Federal Register on December 22, 2010, stated that the BLM would use and coordinate with the NEPA public comment process to satisfy this requirement.

Letters from the BLM were sent to Native American tribes and one non-federally recognized tribe on February 4, 2010, informing them of the application submitted by Ocotillo Express (Applicant) for a right-of-way (ROW) to conduct wind testing at the Project site and to develop a wind energy generation facility near Ocotillo, California. The letters provided notification for the proposed Project, explained the role of the BLM and offered an invitation to the tribes to consult in a government-to-government manner pursuant to the Executive Memorandum of April 29, 1994, and other relevant laws and regulations, including Section 106 of the NHPA. The letters also requested assistance from the tribes in identifying any issues or concerns about the proposed Project, including the identification of sacred sites and places of traditional religious and cultural significance that might be affected and needed to be taken into consideration by the agency. The BLM sent follow-up letters to 14 Native American tribes and one non-federally

recognized tribe on July 28, 2010, concerning the proposed wind development facility and invited them to enter into government-to-government and Section 106 consultations. The letters provided an update on the status of the environmental review process and cultural resource inventory planning.

The tribes were invited to review the inventory work plan and research design, participate in the fieldwork and provide feedback on the inventory results. The BLM has continued to seek input from the tribes and from other consulting parties during the identification and evaluation phase of the Section 106 process, by sending a number of informative follow-up letters, holding both group and individual meetings with various parties and conducting field visits to the Project area and the cultural resources located within it. Formal consultation with the State Historic Preservation Office about this Project, the inventory status and survey methodology was initiated on March 22, 2011.

During the inventory process, at the request of the BLM, Ocotillo Express worked closely with the archaeological contractor to redesign the Project in order to avoid direct physical impacts to identified archaeological sites. As a result, the Sponsor excluded approximately 3,000 acres of the original Project area due to the sensitive nature of cultural resources found there, and eliminated 38 turbines from its initial Project design. As a result the Project will have no physical impact on the archaeological resources identified during the archaeological survey. Upon completion the draft cultural resource reports were made available to consulting parties for their review and input. Based on additional input received from tribes and other stakeholders, an additional 43 turbine locations were eliminated to minimize indirect impacts on cultural resources, resulting in the final layout of 112 turbine locations.

3.2. OUTREACH ACTIVITIES

Ocotillo Express conducted a local job fair on March 22, 2012. As mentioned previously, the Project will support the local economy by:

- Increasing business for local subcontractors during construction for civil works, electrical work, mechanical assembly and dust control applications.
- Increasing business for local subcontractors during Project operation for maintenance and facility repairs, such as civil road maintenance.
- Purchasing goods and services during construction and operation, such as small equipment rentals and security.
- Generating revenue for service businesses, such as local restaurants and hotels.

Additionally, Ocotillo Express has supported the local community by, among other things:

- Contributed to Westside Elementary School so that it could remain open during the 2011-12 school year.
- Entered into an agreement with the Imperial Valley Food Bank to re-start a popular backpack program at Westside Elementary School that had been cancelled due to lack of funding.

- Contributed to the Ocotillo Optimists Graduate Incentive Program and for a fence around the basketball court at the community park.
- Made an initial donation to enable the Imperial Valley Desert Museum in Ocotillo to meet its immediate programming funding needs.
- Committed \$3.25 million to a comprehensive community benefits program to support local education and civic endeavors to benefit both the Ocotillo area as well as the larger Imperial Valley region.

In a review of media forums BECC found that the Project received attention from newspapers and media, such as *UT San Diego*, *East County Magazine*, *Imperial Valley Press*, and several articles on the Internet, including Pattern Renewables' website. Some of the information highlights Pattern Renewables' extraordinary plans for mitigating impacts to the golden eagle and other wildlife with a resident, certified biologist perched on a 50-foot observation tower. Other media searches found opposition to the Project expressed by groups, such as the Desert Protective Council, Anza-Borrego Foundation, and the Quechan and Viejas tribes.

Finally, although not received in the context of the BECC public comment process, BECC and NADB have copies of letters of support for the Project from the Ewiiapaayp Band of Kumeyaay Indians and the Campo Band of Mission Indians. The letter from the first Tribe supports responsible development and acknowledges the level of mitigation measures employed by the Project. The letter from the Campo Band of Mission Indians expresses appreciation for the high level of cooperation offered by the Project Sponsor and states their support for the cultural resource agreement developed for the Project.