



CERTIFICATION AND FINANCING PROPOSAL

SANTA MARIA SOLAR PARK PROJECT IN THE MUNICIPALITY OF GALEANA, CHIHUAHUA

Submitted: April 17, 2017

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EXECUTIVE SUMMARY

SANTA MARIA SOLAR PARK PROJECT IN THE MUNICIPALITY OF GALEANA, CHIHUAHUA

- Project:** The project consists of the design, construction and operation of a 179-MWdc solar park located in the municipality of Galeana, Chihuahua (the “Project”).¹ The electricity and Clean Energy Certificates generated by the Project will be purchased by the Mexican federal electricity commission, (CFE or the “Off-taker”), pursuant to a long-term power purchase agreement (PPA) executed with the special-purpose company created to carry out the Project.
- Objective:** The Project will increase installed capacity of renewable energy resources, which will reduce a proportionate amount of demand on traditional fossil-fuel-based energy production and contribute to the displacement of greenhouse gas emissions and other pollutants from power generation by fossil fuels.
- Expected Outcomes:** The estimated environmental and human health outcomes resulting from the installation of 141.3 MWac of renewable energy generation capacity at the point of interconnection are:
- a) Generation of an average of 394 gigawatts-hours (GWh)/year of electricity during 20 years of operation;² and
 - b) Displacement of approximately 161,881 metric tons/year of carbon dioxide (CO₂), 0.79 metric tons/year of sulfur dioxide (SO₂) and 565 metric tons/year of nitrogen oxides (NOx).³
- Sponsor:** Zuma Energía S.A. de C.V.
- Borrower:** Fistera Energy Santa María 1, S.A.P.I. de C.V.

¹ MWdc stands for megawatts in direct current and MWac stands for MW in alternating current.

² Information provided by the Sponsor.

³ BECC calculation of CO₂, SO₂ and NOx indicators, which reflect the potential emissions displaced as a result of reducing future demand on natural gas-based electricity through the use of solar energy generation equivalent to 394 GWh/year. Emission factors from a combined-cycle power plant located near the Project site were used for these calculations.

CERTIFICATION AND FINANCING PROPOSAL

SANTA MARIA SOLAR PARK PROJECT IN THE MUNICIPALITY OF GALEANA, CHIHUAHUA

1. ELIGIBILITY

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

The Project is in the municipality of Galeana, Chihuahua, approximately 138 km (86 miles) south of the U.S.-Mexico border.

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The private-sector Sponsor is Zuma Energía S.A. de C.V., (Zuma Energía or the "Sponsor"), which in December 2015 created a special-purpose company, (the "Project Company" or "Borrower") to carry out the Project and contract financing for that purpose. Its contact representative is Adrian Katzew Corenstein.

The off-taker is the Mexican federal electricity utility, (CFE) through its subsidiary, (the "Off-taker"). In accordance with the new Power Industry Law, the Project was selected on September 28, 2016, through Long-term Energy Auction No. SLP-1/2016 carried out by the National Center of Energy Control (CENACE) on behalf of the Mexican Government.⁴ The Project has a power purchase agreement for the energy generated, as well as a Clean Energy Certificate purchase agreement. Both agreements are between the Borrower and the Off-taker. Because of their symmetry, these agreements will be defined and treated as one and the same (the "PPA") for the purpose of this proposal.

⁴ Source: CENACE, Auction Decision and Contract Awards, Long-term Auction No. SLP-1/2016, September 28, 2016.

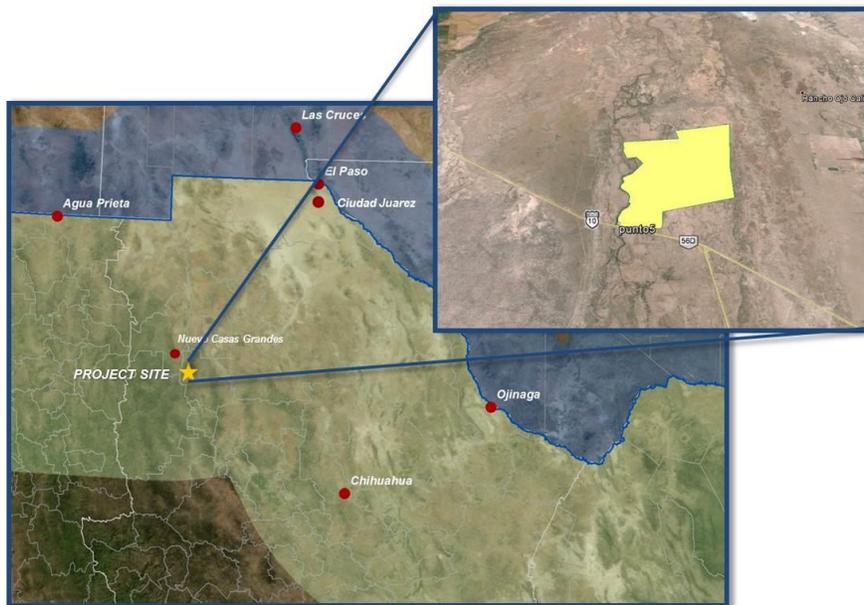
2. CERTIFICATION CRITERIA

2.1. TECHNICAL CRITERIA

2.1.1. Project Description

The Project is located in the municipality of Galeana, Chihuahua, approximately 30 miles southeast of Nuevo Casas Grandes, at the following coordinates: Latitude: 30°11'21.5" N and Longitude: 107°38'14.3" W. The Project will be developed on approximately 390 hectares (964 acres). Figure 1 below shows the geographic location of the Project.

Figure 1
PROJECT MAP



The Project is expected to benefit border communities near the Project site, including the municipalities of Galeana and Nuevo Casas Grandes, which belong to the CFE North Zone. Project benefits include the generation of electricity equivalent to the annual consumption of 54,261 households.⁵ The construction of the Project will also benefit local communities by generating employment opportunities and additional taxes.

⁵ Estimation based on 2,015 kilowatt-hours of electricity consumption per capita in 2014 from Mexico's Energy Information System (<http://sie.energia.gob.mx/>) and 3.6 persons per household in the state of Chihuahua as indicated by the Mexican National Institute of Statistics and Geography (INEGI) (<http://www.beta.inegi.org.mx/app/areasgeograficas/?ag=08>).

According to the Mexican National Institute of Statistics and Geography (INEGI), in 2015, the population of Chihuahua was 3,556,574, which represents 2.97% of the population of Mexico.⁶ Between 2000 and 2010, Chihuahua grew at an annual rate of 1.16%, below the national average (1.52%).⁷ According to the most current economic information from INEGI, the state of Chihuahua contributed 4.79% to the gross domestic product (GDP) of Mexico in 2015.

The population of the municipality of Galeana was 5,892 residents in 2010, which represent 0.16% of the state population. The main activities in Galeana are the manufacturing industry, which employs 85% of Galeana work force; commerce employing 9%; and service industry with 5% of the work force.⁸

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In 2014, the legal framework that governs Mexico's National Power System (SEN) underwent a major reform aimed at facilitating investments to consolidate the diversification efforts, improve infrastructure and meet the growing demand for electricity. Under the new Power Industry Law, the federal government retained control of planning activities and the transmission and distribution infrastructure through CENACE, a decentralized federal agency created by the government to operate the SEN. It is now operating the national grid with more than 546,615 miles of transmission and distribution lines previously operated by CFE.⁹ Under the reform, CFE became a federally-owned for-profit enterprise. The Mexican Energy Regulatory Commission (CRE), which was created to regulate activities related to private investment in the power and natural gas sector, continues to be responsible for issuing permits to private entities for power generation and the transportation of natural gas.

To promote the use of renewable energy, the Mexican Government has enacted two laws in the past four years. In 2015, Mexico enacted the Energy Transition Law to regulate the sustainable use of energy and obligations regarding clean energy and the reduction of pollution from the power industry, while preserving the competitiveness of the productive sectors. The General Law of Climate Change was enacted in 2012 and amended in 2015. Both laws specify, among other provisions, that the Mexican Ministry of Energy (SENER), in coordination with CFE and CRE, must increase the use of clean technologies in power generation to at least 35% by 2024.

Since 1994, Mexico has undertaken efforts to increase the use of non-fossil fuel technologies in power generation. During the period of 2016-2030, Mexico plans to increase the use of clean energy by 35,532 MW, including wind, solar, geothermal and hydroelectric resources, among others. With respect to solar energy in particular, CFE began operating its first solar park with 1 megawatt (MW) of installed capacity in Baja California Sur in 2012. Since then, eight more solar plants have been developed in Mexico for a total installed capacity of 56 MW. The proposed Project fits within the priorities of the Mexican power sector.

⁶ Source: INEGI, Intercensal survey of the population, <http://www.inegi.org.mx/est/contenidos/Proyectos/encuestas/hogares/especiales/ei2015/>.

⁷ Source: INEGI, 2015 general population and housing census (<http://www3.inegi.org.mx/>).

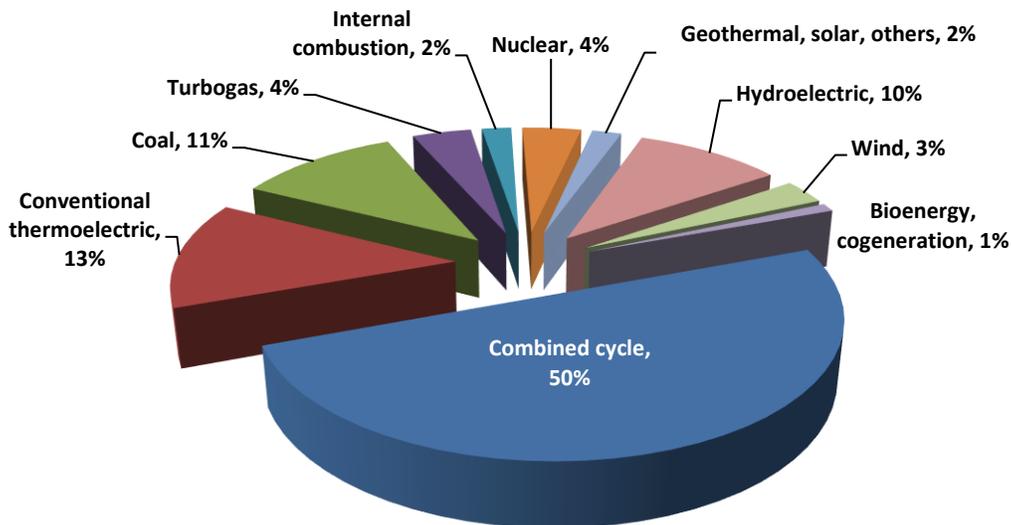
⁸ Source: INEGI, Economic Census 2008 (<http://www.inegi.org.mx>).

⁹ Source: Mexican Ministry of Energy (SENER), 2016-2030 National Power System Development Program (PRODESEN).

Mexico’s energy portfolio includes combined-cycle, thermoelectric, geothermal, hydroelectric, coal-fired, solar photovoltaic, wind, turbogas, internal combustion, cogeneration and nuclear power plants. As reported in the 2016-2030 National Power System Development Program (PRODESEN), in 2015, Mexico had 68,044 MW of installed generation capacity, which represents an increase of 4.0% compared to 2014 (65,452 MW). The total power generation reached 309,553 gigawatt-hours (GWh), an increase of 2.7% compared to the electricity generated in 2014.

In 2015, the power plants operated by CFE supplied 55.2% of the electricity generated, independent producers contributed 28.8% and private entities provided 16.0% through self-supply schemes, cogeneration, small production, exports, distributed generation and rural systems.¹⁰ Figure 2 shows the participation of each technology to the power generation in Mexico.

Figure 2
ENERGY GENERATION BY TECHNOLOGY



Source: SENER, PRODESEN, 2016-2030

For planning purposes, the Mexican power grid is divided into nine control zones, seven of which are interconnected and form the National Interconnected System (SIN). The remaining two zones are independent supply networks serving the areas of Baja California and Baja California Sur. The Project will be located in the North Zone (NZ), which includes the states of Chihuahua, Durango and a small portion of Coahuila as illustrated in Figure 3.

¹⁰ Source: SENER, PRODESEN, 2016-2030.

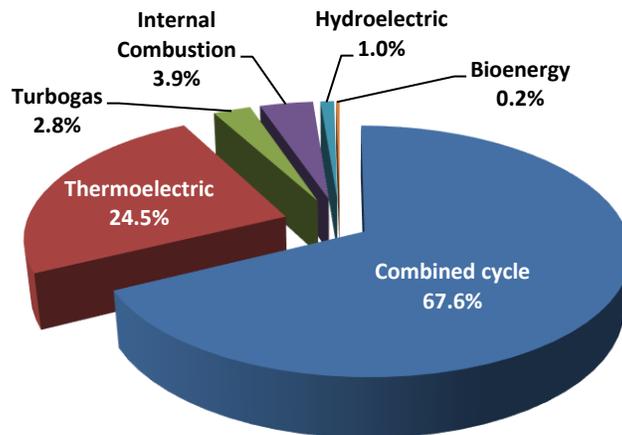
Figure 3
MEXICAN ELECTRIC SYSTEM ZONES



Source: SENER, PRODESEN 2016-2030.

According to SENER, Chihuahua had 2,785 MW of installed generation capacity and supplied 15,691 GWh of electricity in 2015. Figure 4 shows the technologies used for power generation in the state.

Figure 4
CHIHUAHUA PORTFOLIO OF ENERGY TECHNOLOGIES, 2015
(MW)



Source: Based on PRODESEN 2016-2030.

A detailed description of the technologies used to generate electricity in the state of Chihuahua for public service is presented in the following table.

Table 1
POWER GENERATED IN CHIHUAHUA, 2015

Technology	MW	Energy Generation (GWh)	% of Energy Generation
Combined cycle	1,883	14,285	91.0%
Turbogas	77	1	0.0%
Thermoelectric	681	1,224	7.8%
Internal combustion	109	55	0.4%
Bioenergy	7	25	0.2%
Hydroelectric	28	101	0.6%
TOTAL	2,785	15,691	100.0%

Source: Based on PRODESEN 2016-2030.

The Project will account for nearly 2.4% of power generation in Chihuahua.

In 2015, SENER published the first guidelines and a set of manuals that describe the design principles and operation of the wholesale electricity market. The new scheme includes long-term energy auctions allowing basic suppliers to enter into long-term product purchase agreements under competitive conditions to provide energy (MWh), power capacity (MW) and clean energy certificates (CEL) per CRE requirements.¹¹

Under the new Power Industry Law in Mexico, a CEL is defined as the certificate issued by SENER to credit the production of a determined amount of energy from clean sources and can be purchased in the wholesale electricity market in Mexico by large electricity consumers, energy suppliers and qualified users in order to meet their renewable energy requirements. One CEL is equivalent to one MWh. The goal is for all participants to obtain at least 5% of their total electricity through CELs by 2018 and 5.8% by 2019.

On May 13, 2016, CENACE published the guidelines for the auction of long-term renewable energy contracts. With CFE as the off-taker, contracts for the purchase of capacity and renewable energy will be for 15 years and contracts for clean energy certificates will be for 20 years. In September 2016, CENACE selected a total of 23 winners out of a pool of 57 eligible bidders to build 2,871 MW of new renewable capacity worth US\$4.0 billion. This Project is one of those selected in the auction.

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The proposed Project consists of designing, constructing and operating a solar park with an installed capacity of 179 MWdc on approximately 390 hectares (964 acres).¹² Figure 5 shows the Project layout.

¹¹ Source: SENER, PRODESEN 2016-2030.

¹² Source: CRE permit.

Figure 5
PROJECT LAYOUT



Source: Sponsor.

The Project components include the installation of approximately 550,740 solar modules mounted on single-axis tracker arrays and construction of one substation. The energy generated by the modules will be collected through underground lines and delivered to an existing CFE transmission line that cuts through the Project site using a 230-kV switchyard.

The Sponsor is considering two separate contracts for construction of the solar park: a solar panel supply contract and a Balance of System (BoS) agreement.¹³ NADB 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.

Notice to proceed is scheduled for June 2018, and the Commercial Operation Date (COD) is anticipated to occur no later than June 2019. Table 2 presents the status of key milestones and permits for the implementation of the Project.

¹³ The construction contract for a solar plant—including equipment acquisition except for the panel supply, civil works, equipment installation, and plant testing and energizing—is typically known as a Balance of System (BoS) agreement.

Table 2
PROJECT MILESTONES

Key Milestones	Status
Land purchase agreement	Completed (October 2015)
CENACE indicative interconnection study	Completed (May 2015)
CENACE system impact study	Completed (November 2015)
CENACE facilities study	Completed (March 2016)
CENACE interconnection agreement	Completed (June 2016)
CRE authorization for energy generation	Completed (November 2014)
Archeological clearance by the National Institute of Anthropology and History (INAH)	Completed (November 2014)
SEMARNAT environmental authorization for the solar park (MIA resolution)	Completed (March 2014)
Land use change authorization issued by SEMARNAT	In progress
SENER social impact study	Completed (October 2016)
Module supply agreement	In progress
Power purchase agreements (Energy and CELs)	Completed (January 2017)
Independent engineer final report	In process
Commercial operation date (COD)	June 2019

2.1.2. Technical Feasibility

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The Sponsor is evaluating solar modules from different suppliers in order to select the equipment best suited to the characteristics of the Project site and solar resource. The process for technology evaluation considers elements such as technical performance, price and warranties. Additionally, the Project will be evaluated for viability based on the use of bankable technologies. The independent engineer will confirm the suitability of the technology and expected performance. The current technical description of the Project is based on the preliminary engineering report presented for the Environmental Impact Assessment (MIA) and is subject to change once the design is finalized. Below is a description of the main components of the Project.

- _____: Approximately 550,740 photovoltaic modules will be installed and mounted on single-axis tracker arrays.¹⁴ The parallel arrays will be spaced apart to minimize inter-row shading by the sun. The panel providers will be selected from a short list of top-tier global providers.
- _____: The inverters selected for the Project will maximize energy production. The Sponsor is currently evaluating equipment specifications based on industry standards, performance efficiency, warranties and price.

¹⁴ Source: MIA Assessment. The number of modules is based on a thin-film technology system design. The Sponsor is evaluating a different technology (polycrystalline modules) and will update this figure prior to completion of the Independent Engineer review.

- _____ The energy generated by the Project will be collected through underground lines and delivered to an existing CFE transmission line located on the Project site through a 230-kV switchyard.
- _____: A SCADA system will be used to monitor, operate and track the plant remotely, as well as document the performance of the photovoltaic system relative to its predicted output.
- _____ Access roads will be constructed to allow for the delivery and installation of the components, machinery, equipment and materials required for construction of the modules, substation and switchyard. The roads will be designed for low-volume traffic.
- _____ A permanent O&M facility will be built with administrative space, as well as for the maintenance and storage of equipment during construction and operation.

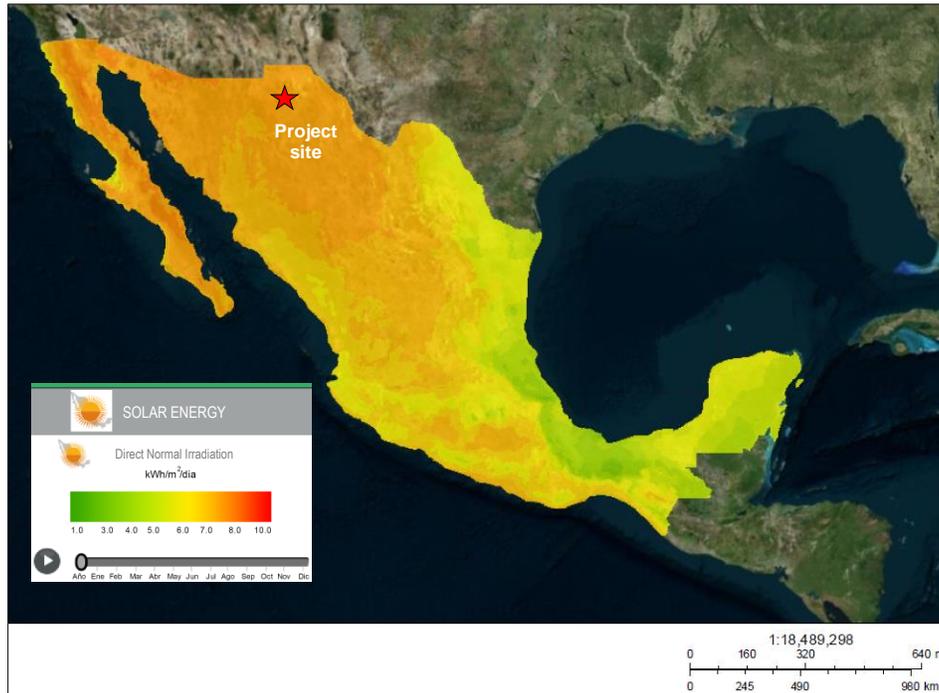
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The Project is located in the municipality of Galeana in the state of Chihuahua, where optimum solar resource has been reported. According to the Mexican National Renewable Energy Inventory (INERE) published by SENER, solar resources at the Project site range from 7,000 to 7,500 W/m² (see Figure 6).¹⁵

¹⁵ Source: SENER, Mexican National Renewable Energy Inventory, (<https://dgel.energia.gob.mx/inere/>)

(INERE)

Figure 6
SOLAR RESOURCE IN MEXICO



Source: National Renewable Energy Inventory (INERE)

The northwest region of Mexico is one of the areas with highest solar energy resource in the world. Based on the solar resource assessments developed by SENER, Chihuahua has a high potential for solar energy development. The Chihuahua State Development Plan promotes the use of renewable energy sources to help create new jobs, foster innovation and reduce the release of harmful emissions into the environment.

The Sponsor is currently evaluating module technology that is expected to be mounted on single-axis trackers and will update the electricity generation models as soon as the technology is confirmed. This information will be evaluated during the independent engineer review, in coordination with NADB.

2.1.3 Land Acquisition and Right-of-way Requirements

The Project will be developed in a semi-arid valley in the municipality of Galeana, Chihuahua. The land primarily consists of low grasses, mesquite and bushes and is surrounded by land for livestock ranching. Current land use in the Project area is cattle grazing.¹⁶ There is no other significant activity.

¹⁶ Source: MIA.

The Project will be developed on 390 hectares (964 acres), which the Sponsor has secured by purchasing the land from the private owner in October 2015. Documentation related to the land acquisition has been provided by the Sponsor.

Authorization from the Mexican Ministry of Environment and Natural Resources (SEMARNAT) to change land use will be required for construction of the Project. The Sponsor has already submitted a formal land use change request. The MIA resolution was issued on March 2014, and authorization for the land use change is expected to be approved by SEMARNAT in May 2017. More information is provided in Section 2.2.

Municipal permits for construction have been obtained.

2.1.4. Management and Operations

The Project Sponsor, Zuma Energía S.A. de C.V., which created Fisterra Energy Santa María 1, S.A.P.I. de C.V., a special-purpose company, to develop the solar energy project in Chihuahua, Mexico.

Zuma Energía is a Mexican renewable energy company that has positioned itself as a leader in the sector, with a portfolio of wind and solar PV projects totaling 775 MW under development and one wind farm (Ingenio Wind Farm) in operation in Oaxaca. Zuma Energía, along with its shareholders, Actis and Mesoamerica, are prominent private equity investors in renewable energy in emerging markets. Actis has accumulated over 14.5 GW of installed capacity in various markets, attesting to its global expertise in the electricity sector. Zuma is Actis' renewable generation platform in Mexico, in keeping with the successful model it has implemented in Africa, Brazil, Chile and Central America. Mesoamerica is a respected private equity manager in Central America.

The Sponsor was awarded three contracts, including the Project, in CENACE Auction No. SLP-2/2016 held in September 2016. Zuma's projects represent 26.5% of the energy contracted in the auction and 25.4% of the CELs.

The proposed Project will be designed to operate with minimal human intervention. Operation and maintenance tasks will be performed to optimize the operating times of the modules, reduce repair costs and extend the life of the equipment. The Sponsor will execute a Balance of System Agreement, which in addition to the engineering, procurement and construction of the Project, will cover the first two years of operation, with an option to extend the contract for another three years at a predetermined price, after which the contract may be renewed or another contractor may be procured.

Typical operation and maintenance for single-axis solar fields includes cleaning solar modules and preventive maintenance of equipment.

2.2. ENVIRONMENTAL CRITERIA

2.2.1. Compliance with Applicable Environmental Laws and Regulations

According to the MIA Resolution issued by SEMARNAT in March 2014, the Project must comply with the following laws:

- _____ which establishes the environmental regulatory framework, expands the strategic vision, and conveys specific powers and duties to the states and municipalities, so that the environmental problems of each can be addressed directly. In accordance with Articles 28 and 30 of this law, the Project Sponsor developed a MIA that includes mitigation measures to preserve and protect the environment.
- _____ which establishes the maximum permissible levels of pollutants emitted by vehicles using gasoline as fuel.
- _____ which establishes the maximum permissible levels of exhaust fume opacity from vehicles that use diesel, as well as test procedures and the technical characteristics of measuring equipment.
- _____ which establishes the characteristics, identification procedures and classification of hazardous solid waste.
- _____ which identifies and lists endangered species or clusters of wildlife in Mexico and establishes the criteria for inclusion, exclusion or change in risk status for different species, based on a method for assessing the risk of extinction.
- _____, which establishes the maximum permissible noise levels of exhaust systems of motor vehicles, motorcycles and three-wheel motor vehicles, as well as noise measuring methods.

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In accordance with the environmental impact regulations established under the LGEEPA, the Sponsor prepared and submitted a MIA in December 2013, for the construction of a solar park in Galeana, Chihuahua. The MIA identified, described and evaluated the potential environmental impacts associated with the Project, as well as the proposed mitigation measures to prevent or minimize any negative effects or impacts. According to the MIA, the Project will not impact any protected area. The study identified the potential presence of 59 species in the Project area—including reptiles, mammals and birds—16 of which are considered protected species under Mexican regulation NOM-059-SEMARNAT-2010. Only nine of the 59 species identified in the study were found during the site assessment, and none of them are considered protected species.

On March 3, 2014, SEMARNAT issued MIA Resolution No SG.IR.08-2014/106 authorizing the construction of a solar park and related infrastructure for its operation. The MIA Resolution concluded that, although the Project would have an impact on wildlife, the impact could be

minimized by implementing the set of mitigation measures proposed by the Sponsor. It also established follow-up conditions for the Project. Additional information about the mitigation measures and conditions specified in the MIA Resolution are described in Section 2.2.2.

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Authorization of the land use change from SEMARNAT is in process and expected to be issued in May 2017. All environmental authorizations must be secured prior to loan disbursement.

MIA Resolution No. SG.IR.08-2014/106 was issued by SEMARNAT for the solar park in March 2014.

2.2.2. Environmental Effects / Impacts

There is a need for affordable and environmentally-friendly alternatives to conventional hydrocarbon-based energy resources. Renewable energy projects create an opportunity to generate electricity utilizing sources that do not produce greenhouse gases (GHG) like those released by fossil-fuel-based plants. Sunlight is a source of renewable energy, which means that it can be used continuously without depleting natural resources. It is a clean form of renewable energy as no waste or pollutants are released in the generation process and, therefore, it provides an opportunity to displace GHG and other pollutants produced by traditional hydrocarbon-based energy generation, while providing local residents with a safe and reliable energy alternative. Moreover, solar energy production does not consume or pollute water, although minimal amounts may be used for maintenance purposes. Solar energy is currently used in many developed and developing nations to meet their demand for electricity.

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Historically, Mexico has depended to a great extent on fossil fuels for the generation of energy. This conventional method of energy development can affect the natural environment due to harmful emissions related to the generation process, including GHG and other pollutants, such as sulfur dioxide (SO₂) and nitrogen oxides (NO_x).

The Project will help reduce the demand for electricity generated by fossil fuel-based power plants, and since solar-based power generation implies zero fuel costs and emissions, it will displace related harmful emissions. The anticipated environmental outcomes from the installation of 179 MWdc of new renewable energy generation capacity (or an average of 394 GWh of electricity a year) include the displacement of approximately 161,881 metric tons/year of carbon dioxide, 0.79 metric tons/year of sulfur dioxide and 565 metric tons/year of nitrogen oxides.¹⁷

¹⁷ BECC calculation of CO₂, SO₂ and NO_x indicators, which reflect the potential emissions displaced as a result of reducing future demand on natural gas-based electricity through the use of solar energy generation equivalent to 394 GWh/year. Emission factors from a combined-cycle power plant located near the Project site were used for these calculations.

Some environmental impacts are anticipated from the implementation of the Project. The Sponsor has proposed measures that are intended to reduce, mitigate and control environmental impacts resulting from Project activities. To ensure that mitigation measures are implemented properly and in a timely manner, the Sponsor will develop an Environmental Monitoring Program. The following mitigation measures included in the MIA and its resolution will be implemented.

- _____: Specialized personnel with environmental expertise will be present on site during construction to monitor tasks related to compliance with environmental regulations.
- _____
 - The use of herbicides and/or chemicals will be prohibited during land clearing activities.
 - Native flora protected by law will be identified, rescued and relocated.
 - If species such as quaking aspens (_____) or elaeagnus willow (_____) are removed, reforestation activities will be carried out along the river bank adjacent to the property; 10 new trees for each specimen removed.
- _____
 - A wildlife conservation and protection program will be developed and implemented in the Project area.
 - Prior to land clearing activities, the Sponsor will verify the existence of any fauna protected under Mexican NOM-059-SEMARNAT-2010. If detected, the Sponsor will rescue and relocate the specimens to a similar site with the concurrence of the environmental authorities.
- _____
 - Access roads will be watered to reduce dust generation.
 - Construction machinery and vehicles will undergo regular preventive maintenance to reduce emissions.
- _____: Septic tanks will be used to dispose of wastewater.
- _____
 - Oils, fuels and other pollutants will not be placed directly on the ground during any stage of Project development or operation.
 - Procedures will be implemented for the separation, storage, collection and use or disposal of the different types of waste generated in the different stages of the Project.
 - Solid waste will be handled in accordance with SEMARNAT regulations.

The Project will support natural resource conservation by reducing the demand on fossil fuels for energy production and providing related improvements to air quality. The Project is anticipated to produce an average of 394 GWh/year of zero-carbon electricity during 20 years of operation, equivalent to the annual energy consumption of approximately 54,261 households.

In addition, clean technologies such as solar energy require no water for electricity production, whereas fossil-fuel-fired generation is typically water intensive. Water to be used during the construction phase, will be transported by water tanks to the Project site.

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 to meet an ever-growing demand for energy, as well as a lost opportunity to generate emission-free energy, such as that derived from solar sources. Moreover, the Project will help meet the goals established under the Mexican Energy Transition Law and comply with emissions regulations, while also helping to meet increased demand for electricity. Should the Project not be implemented, the mix of renewables in Mexico will be delayed.

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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 human beings 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 problems 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.

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No negative transboundary impacts are anticipated because of the development of the Project; on the contrary, a beneficial effect is anticipated on 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 and will be consistent with the North American Climate, Clean Energy, and Environment Partnership Action Plan announced by the governments of the U.S., Mexico and Canada on June 29, 2016.

The Project will promote the social and economic development of the municipality of Galeana, Chihuahua. The Project is expected to generate temporary jobs during construction, as well as permanent jobs during operation. Employment of construction personnel will provide a temporary beneficial impact on local businesses and the regional economy through increased expenditure of wages for goods and services. Personnel for construction will be drawn from local populations to the extent feasible.

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 renewable energy industry and with the long term PPA for energy and Clean Energy Certificates (CELs) bid by the CFE's, in accordance with the new Mexican electricity regulatory framework. NADB will be participating in the transaction with other senior lenders. The source of payment will be the revenue generated by the Project in accordance with the pricing established under the PPAs that have been signed by the Project Company. NADB loan will have no recourse beyond the Project Company, Fistera Energy Santa María 1, S.A.P.I. de C.V.

The Project's revenue from the sale of electricity and CELs 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 loans, and d) comply with debt service coverage requirements.

In addition, NADB's analysis verified that the Project Company has the legal authority to contract financing and pledge their revenue for the payment of financial obligations. The Project Company has also the legal and financial capacity to operate and maintain the Project based on the experience provided by their development team. Project Company will contract the Project O&M services with a firm with ample experience and expertise in the industry. NADB will verify 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 long term senior loan for the equivalent in pesos of up to \$55.5 million dollars, to the Project Company, 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 March 14, 2017. The following documentation is available upon request:

- Environmental Impact Assessment (MIA) for the Santa Maria Solar Plant, December 2013.
- MIA Resolution SG.IR.08-2014/106 issued on March 3, 2014.
- Santa Maria Solar Photovoltaic Plant Social Impact Study, November 2015.
- Social Impact Study Resolution DGAEISyCP.390/16 issued on September 30, 2016.

The public comment period ended on April 13, 2017, with no comments received.

3.2. OUTREACH ACTIVITIES

As part of the environmental authorization process, on January 16, 2014, SEMARNAT published the request for environmental authorization of the Project in its weekly publication (), which provides information about the projects under evaluation. According to the rulings, no public comments were received regarding the solar park.

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Under the Mexican Power Industry Law, anyone interested in obtaining a permit or authorization to develop projects in the energy sector must present a Social Impact Assessment (SIA) to SENER. In accordance with the guidelines and methodologies established by SENER, the study must identify the communities and towns in the area of influence of a project, as well as identify, characterize, predict and assess its possible consequences for the population, along with mitigation measures and plans for managing the social aspects of the project, including: a Social Management Plan (SMP), Social Investment Plan (SIP), Monitoring and Evaluation Plan, Communication Strategy and Community Involvement Plan, social baseline, and stakeholder analysis. The evaluation also requires that indigenous communities or groups be identified in the area of influence of the project to determine if they need to be consulted. Based on the assessment, SENER will verify compliance with social impact and sustainable development regulations.

On November 5, 2015, the Sponsor presented a SIA for the Project to the Social Impact and Land Occupancy Department of SENER. A total of 244 indigenous residents were identified in the municipality of Galeana, representing 4% of the population of the municipality. No consultation is required as the municipality fits in the category of a Municipality with a dispersed indigenous population. The study was reviewed by SENER and approved on September 2016 through Resolution No. DGAEISyCP.390/16.

As part of the evaluation of social impacts, the Sponsor implemented a series of anthropological methods, including discussion groups and socialization assemblies during the development of this study. The information obtained from this process resulted in the identification of 22 positive social impacts, such as opportunities for local employment, access to the Project site for educational purposes, increased land value in the area of influence of the Project and expected lower energy costs in the region. The only potential negative social impact that was identified is related to the rights of the vulnerable population. The ruling requires that this group receive information and attention. If any special considerations are required, a protocol for mitigation will need to be established to mitigate negative impacts.

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BECC conducted a media search to identify potential public opinion about the Project. References to the Project were found on several Internet sites, such as

and These articles can be found at the following links:

- _____ (May 18, 2016) – “ _____ ” (Latin America’s largest solar plant under construction) <http://www.reforma.com/aplicacioneslibre/articulo/default.aspx?id=847202&md5=29faae9e90764774f86d341aeaab744&ta=0dfdbac11765226904c16cb9ad1b2efe&po=4>
- _____ (May 19, 2016) – “ _____ ” (Latin America’s biggest solar plant to be built in Chihuahua) <http://nortedigital.mx/haran-chihuahua-planta-solar-mas-grande-al/>
- _____ (May 18, 2016) – “ _____ ” (Santa Maria Solar Plant will be the biggest in Latin America) http://diario.mx/Estado/2016-05-18_7b6a18b6/planta-solar-santa-maria-sera-la-mas-grande-de-latinoamerica-duarte/
- _____ (May 18, 2016) – “ _____ ” (Construction begins on solar plant in Chihuahua) http://diario.mx/Estado/2016-05-18_7b6a18b6/planta-solar-santa-maria-sera-la-mas-grande-de-latinoamerica-duarte/
- _____ (May 18, 2016) – “ _____ ” (Construction begins on the largest solar plant in Latin America) http://diario.mx/Estado/2016-05-18_7b6a18b6/planta-solar-santa-maria-sera-la-mas-grande-de-latinoamerica-duarte/

In summary, these publications highlight the scope of the Project. Opposition to the Project was not detected from the available media coverage. The Project Sponsor has complied with all public consultation requirements related to the applicable environmental clearance and permitting processes.