CERTIFICATION AND FINANCING PROPOSAL

SUNRAY SOLAR PROJECT IN UVALDE COUNTY, TEXAS

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EXECUTIVE SUMMARY

SUNRAY SOLAR PROJECT IN UVALDE COUNTY, TEXAS

Project Summary

Project Name:	Sunray Solar Project.
Project Sector (Type):	Sustainable energy (solar energy).
Objective:	Increase the installed capacity of renewable energy resources to reduce future demand on fossil fuel-based energy production and displace related harmful emissions.
Expected Outcomes:	The solar park, which will be built just outside the border region, will generate approximately 515.18 gigawatt-hours (GWh) of electricity during the first year of operation, of which more than 35% is expected to be used within the 100-km border region. As a result, it will help prevent the emission of an estimated 220,085 metric tons/year of carbon dioxide (CO_2), 164 metric tons/year of nitrogen oxides (NOx) and 164 metric tons/year of sulfur dioxide (SO_2).
Population to Benefit:	13,735 households (38,870 residents) in the border region.[1]
Sponsor:	The private-sector project sponsor is Arava Power Company, Ltd. (Arava).
Borrower:	During construction: AP Sunray, LLC (the Project Company). During operating period: Sunray Class B Member, L.P.
NADBank Loan Amount:	Up to US$65 million.

[1] The Project is located approximately 62.42 miles (100.46 km) northeast of the U.S.-Mexico border, just a quarter mile beyond NADBank's 100-km (62.14-mile) border region in the United States; however, more than 35% of the expected electricity produced by the Project will benefit users within the region. The number of households benefitted by 35% of the energy generated by the Project is calculated considering an (i) average annual electricity consumption per Texas household of 13,128 kilowatt-hours (kWh) in 2021, as estimated by the U.S. Energy Information Administration (EIA) and (ii) 2.83 persons per household as estimated by the U.S. Census Bureau.

CERTIFICATION AND FINANCING PROPOSAL

SUNRAY SOLAR PROJECT IN UVALDE, TEXAS

1. PROJECT OVERVIEW AND EXPECTED OUTCOMES

The proposed project consists of the design, construction and operation of a 200-MW_{AC} solar park located in Uvalde County, Texas (the "Project").[2] The private-sector project sponsor is Arava Power Company, Ltd. (Arava or the "Sponsor"), which will use a special-purpose vehicle, AP Sunray, LLC (the "Project Company"), to implement the Project. The electricity and renewable energy credits (RECs) generated by the solar plant will be sold to private off-takers and/or in the wholesale electricity market operated by the Electric Reliability Council of Texas (ERCOT). The purpose of the Project is to increase the installed capacity of renewable energy resources.

The solar park is expected to generate 515.18 gigawatt-hours (GWh) of electricity during the first year of operation, of which more than 35% is expected to be used within the 100-km border region. The Project will help reduce future demand on traditional fossil fuel-based energy production and the emission of greenhouse gases and other pollutants from such power generation. Specifically, it will help prevent the emission of an estimated 220,085 metric tons/year of carbon dioxide (CO_2), 164 metric tons/year of nitrogen oxides (NOx) and 164 metric tons/year of sulfur dioxide (SO_2).

2. ELIGIBILITY

2.1. Project Type

The Project falls within the eligible category of sustainable energy.

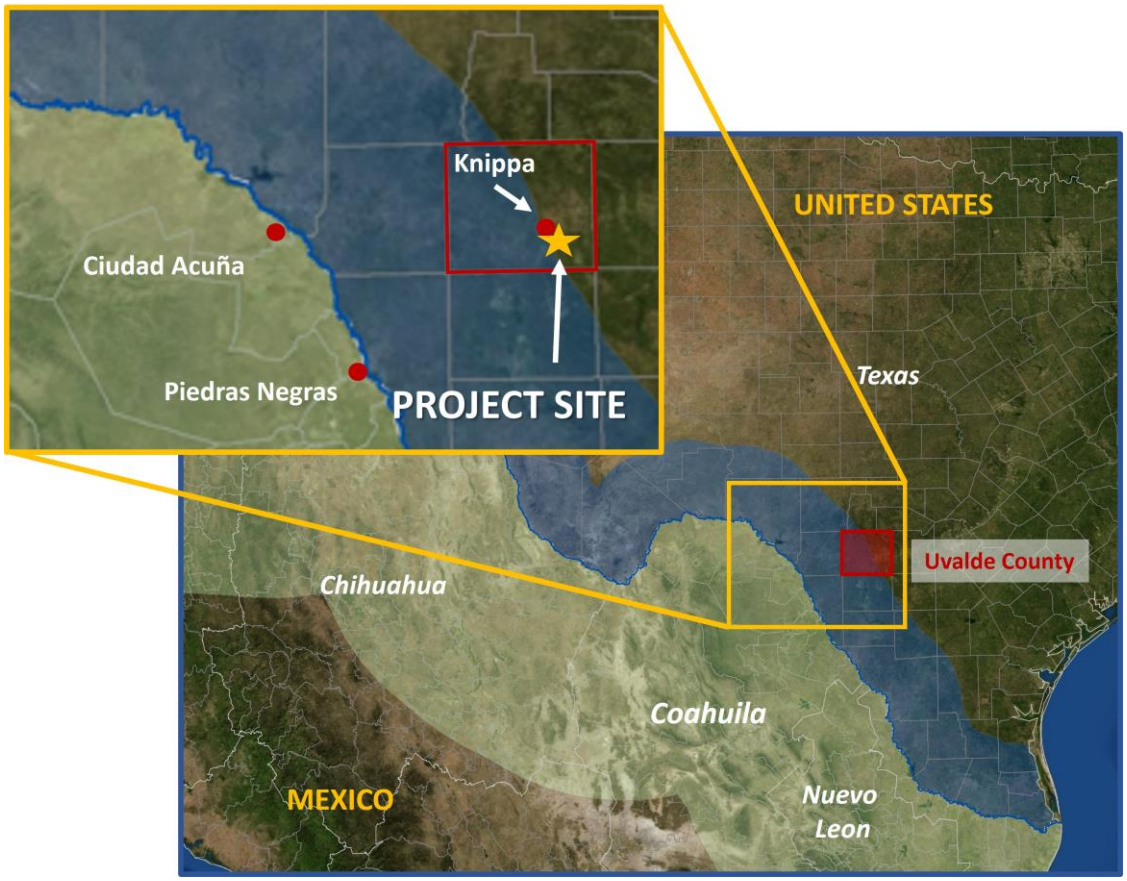
2.2. Project Location

The Project will be developed on approximately 1,865 acres (693 hectares) of private land in Uvalde County, Texas, adjacent to the town of Knippa. The Project is located approximately 62.42 miles (100.46 km) northeast of the U.S.-Mexico border, just a quarter mile beyond the 100-km (62.14-mile) border region in the United States. Even though the Project is located slightly beyond the Bank's geographic jurisdiction, the expected results will benefit communities within the region. The Project will be installed at the following coordinates:

[2] MW_{AC} stands for megawatts in alternating current, while MW_{DC} stands for megawatts in direct current.

latitude: 29°16'16"N and longitude: 99°38'57"W. Figure 1 illustrates the geographic location of the Project.

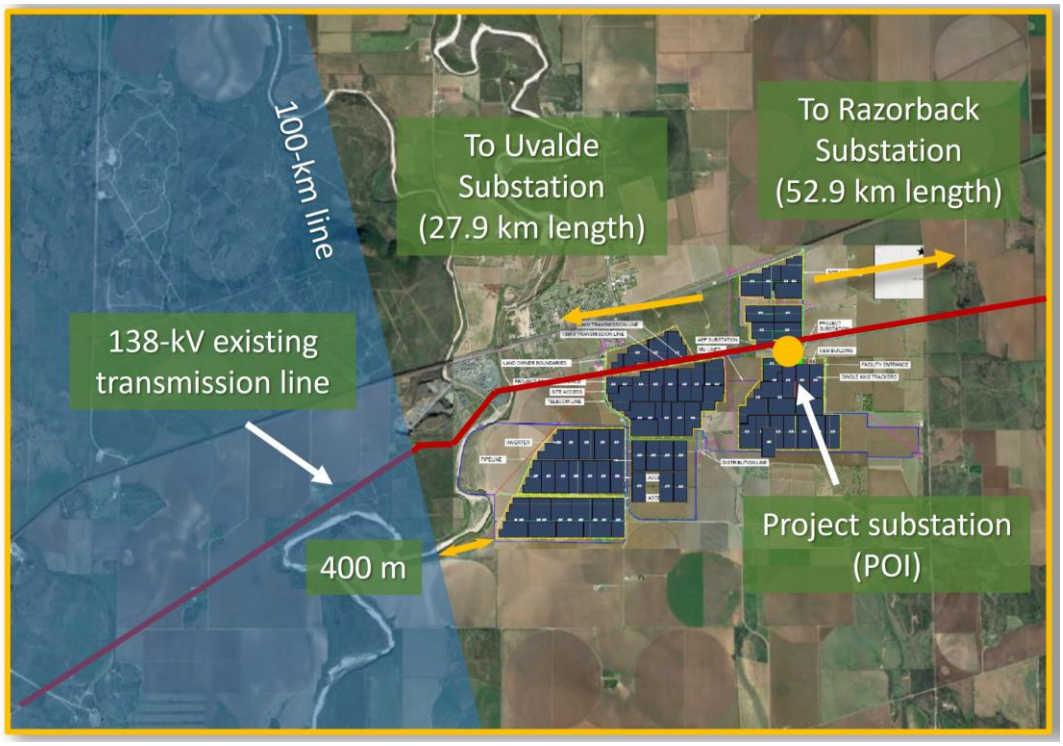
Figure 1
PROJECT LOCATION MAP



NADBank consulted an expert to determine how much of the electricity generated by the Project could reasonably be expected to meet demand within the 100-km border region. The evaluation concludes that more than 35% of the electricity generated by the Project will benefit users within the region. Additionally, there is reasonable proportionality between the size of the proposed NADBank loan and the energy generated for the benefit of border communities. The Project is also located within reasonable proximity of the 100-km border region and thus meets the guidelines established to evaluate the eligibility of financing investments where the physical assets are installed outside the border region, but the expected results will benefit communities within the region.

Figure 2 shows the Project's location in reference to the 100-km border region, along with the existing transmission line that crosses over the Project site, as well as the direction and distance to the Uvalde Substation (inside the 100-km border region) and the Razorback Substation (outside the 100-km border region).

Figure 2
DETAILED PROJECT LOCATION MAP



POI = Point of interconnection.

2.3. Project Sponsor and Legal Authority

The private-sector project sponsor is Arava Power Company, Ltd. (Arava), which will use a special-purpose vehicle, AP Sunray, LLC (the "Project Company"), to implement the Project.

3. CERTIFICATION CRITERIA

3.1. Technical Criteria

3.1.1. General Community Profile

According to the U.S. Census Bureau, in 2021, Uvalde County had an estimated population of 24,729, which represents 0.084% of the Texas population. The county had an average poverty rate of 19% in 2021, which is higher than the 13.4% poverty level estimated for the state of Texas. The median household income (MHI) in 2020 was estimated at US$45,936, which is less than the US$63,826 estimated for the state.[3]

[3] Source: U.S. Census Bureau, QuickFacts, https://www.census.gov/quickfacts/fact/table/uvaldecountytexas,TX/PST045221

The electricity generated by the Project is expected to offset generation from other, more polluting sources, thus resulting in cleaner air in the region. Specifically, the electricity generated by the solar park will be equivalent to the annual consumption of 39,243 households (111,057 residents),[4] of which an estimated 13,735 households (38,870 residents) are located in the 100-km border region.[5]

Additionally, the Project is expected to benefit nearby communities through the creation of approximately 200 jobs during construction and 15 on-site jobs during operation.

Local Energy Profile

In 1999, Texas established a Renewable Portfolio Standard (RPS) as part of its electricity industry restructuring legislation under Senate Bill 7, which was designed to increase the delivery of renewable electricity with associated environmental benefits to the people of Texas. The RPS initially mandated that electricity providers collectively generate 2,000 MW of additional renewable energy by 2009. In 2005, the Texas Legislature approved a much more aggressive RPS, increasing the state's total renewable energy mandate to 5,880 MW by 2015 and 10,000 MW by 2025. Texas has already exceeded these goals. In 2021 the state had an installed capacity of 43,208 MW, generating 114,395 GWh of electricity only from solar and wind sources.[6] Table 1 shows a breakdown of the sources of energy generation in Texas.

Table 1
TEXAS POWER INDUSTRY GENERATION BY SOURCE IN 2021

Source	Generation (GWh)	%
Coal	88,818	18.43%
Hydroelectric	1,082	0.22%
Natural gas	233,120	48.38%
Nuclear	40,211	8.34%
Other	454	0.09%
Other biomass	342	0.07%
Other gas	2,218	0.46%
Petroleum	297	0.06%
Solar	14,921	3.10%
Wind	99,474	20.64%
Wood	939	0.19%
Total electric industry	481,876	100%

The 34.2 GWh supplied by battery storage systems in 2021 was not included in total power industry generation. Table developed by NADBank based on data from the U.S. Energy Information Administration (EIA), Texas Electricity Profile 2021 (Full data tables 1–17) (https://www.eia.gov/electricity/state/texas/index.php).

[4] Calculated by NADBank based on (i) average annual electricity consumption per Texas household of 13,128 kilowatt-hours (kWh) in 2021, as estimated by the U.S. Energy Information Administration (EIA) (https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf), and (ii) 2.83 persons per household as estimated by the U.S. Census Bureau.
[5] Calculation adjusted by NADBank based on 35% of the energy generated by the Project being used within the border region.
[6] Source: EIA, Texas Electricity Profiles, Tables 4 & 5 (http://www.eia.gov/electricity/state/texas/).

Since 2012, NADBank has certified and funded seven renewable energy projects in the Texas border region that are contributing a total capacity of 961 MW to the state RPS.

The electricity system in the United States consists of three regions: the Eastern Interconnection, the Western Interconnection and the Texas Interconnection. The latter, operated by ERCOT, is separate from the rest of the nation, making Texas the only mainland state with its own grid. The Texas Interconnection region covers 75% of the landmass and 90% of the electrical load of the state. A total of 393,000 gigawatts-hours (GWh) of energy were used in 2021, a 2.87% increase compared to 2020. Around 42% of the energy provided by ERCOT came from natural gas (165,060 GWh).[7]

Four competitive load zones (or hubs) are defined in the ERCOT nodal market. Electricity generated by the Project will be commercialized in the ERCOT South Hub, which serves communities inside and outside the 100-km border region. In particular, the South Hub provides electricity to over 1.7 million residents living in the border region, in cities such as Del Rio, Eagle Pass, McAllen and Harlingen, among others. Based on electricity consumption per capita in the state of Texas, the South Hub border region population consumes about 15 times the electricity generated by the Project.

3.1.2. Project Scope

The Project consists of the design, construction, and operation of a 200-MW_{AC} solar park and includes the following components:

- *Modules*: Approximately 498,000 bifacial monocrystalline photovoltaic (PV) modules with a nominal capacity of 540-545 watts will be installed.[8] The expected useful life of the modules is at least 30 years. The panel provider will be a top-tier global manufacturer. It is important to highlight that the panel provider has a Code of Conduct Policy in place, which, among other things, establishes child labor avoidance requirements for all stages of the manufacturing process and is applicable to all of its employees, suppliers and business partners.

- *Tracking system*: The modules will be mounted on single-axis tracking arrays, consisting of galvanized steel foundations and stainless steel and aluminum framing, with an option of 90-, 104- and 120-degree tracking range.

- *Inverters*: A total of 62 inverters will be installed to transform the direct current from the modules into alternating current, with an efficiency of 97.7% and modular design for easy maintenance. The inverters will be directly coupled to step-up transformers, which will transform the electricity to 34.5 kV.

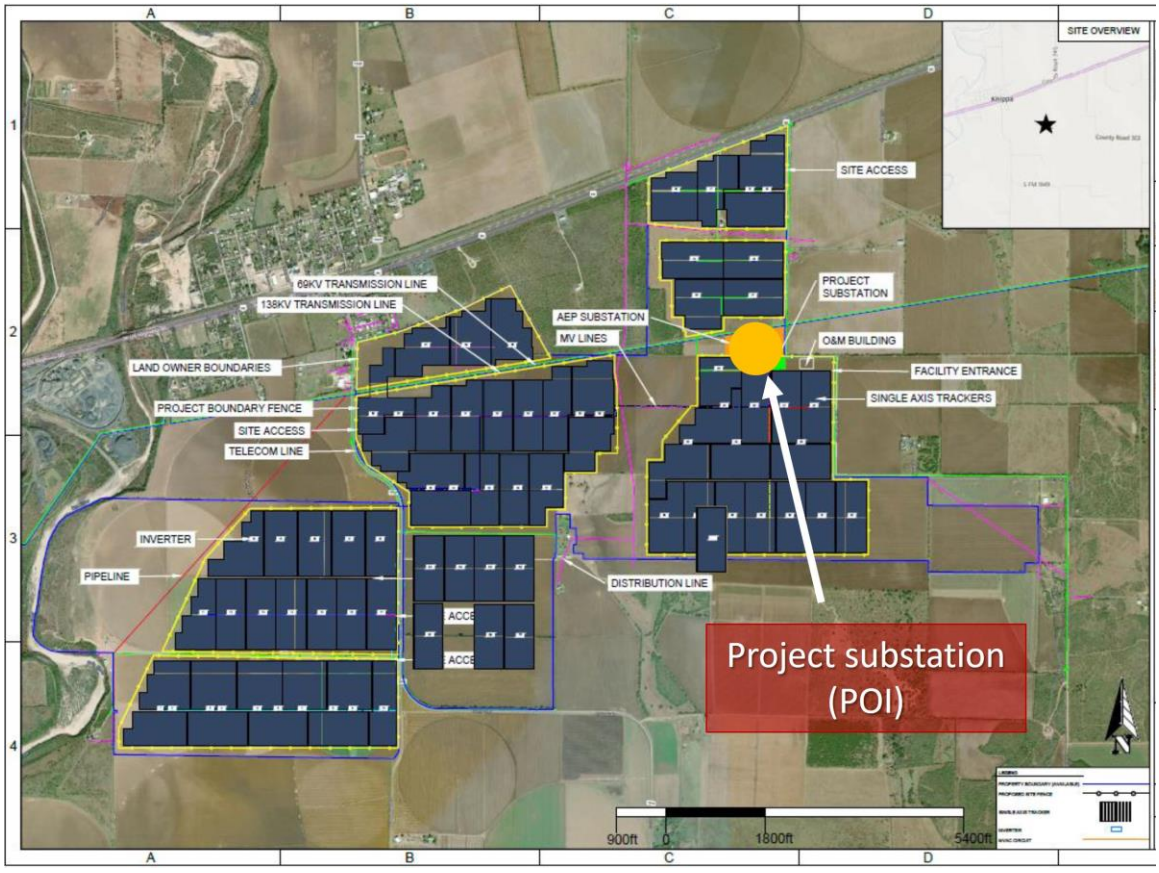
[7] Source: ERCOT Fact Sheet, (https://www.ercot.com/files/docs/2022/02/08/ERCOT_Fact_Sheet.pdf).
[8] A bifacial photovoltaic module is a double glass module that has the capability of converting solar power into electricity from the reflecting light in the rear side of the module in addition to the typical conversion of incident light at the front side, providing higher output power, a lower temperature coefficient, less shading loss and enhanced tolerance for mechanical loading.

- *Interconnection*: A network of underground electric cables will be installed to collect the energy from the modules. One step-up substation will be constructed to transform the electricity from 34.5 kV to 138 kV. The Project will be interconnected to the existing 138-kV Uvalde-Razorback transmission line operated by ERCOT that crosses over the Project site.

- *Monitoring and control system*: A SCADA system will be used to monitor, operate and track the park remotely, as well as document the performance of the PV system relative to its predicted output.

Figure 3 shows the location of the main components within the Project area, as well as the location of the transmission line and interconnection substation.

Figure 3
PROJECT LAYOUT



3.1.3. Technical Feasibility

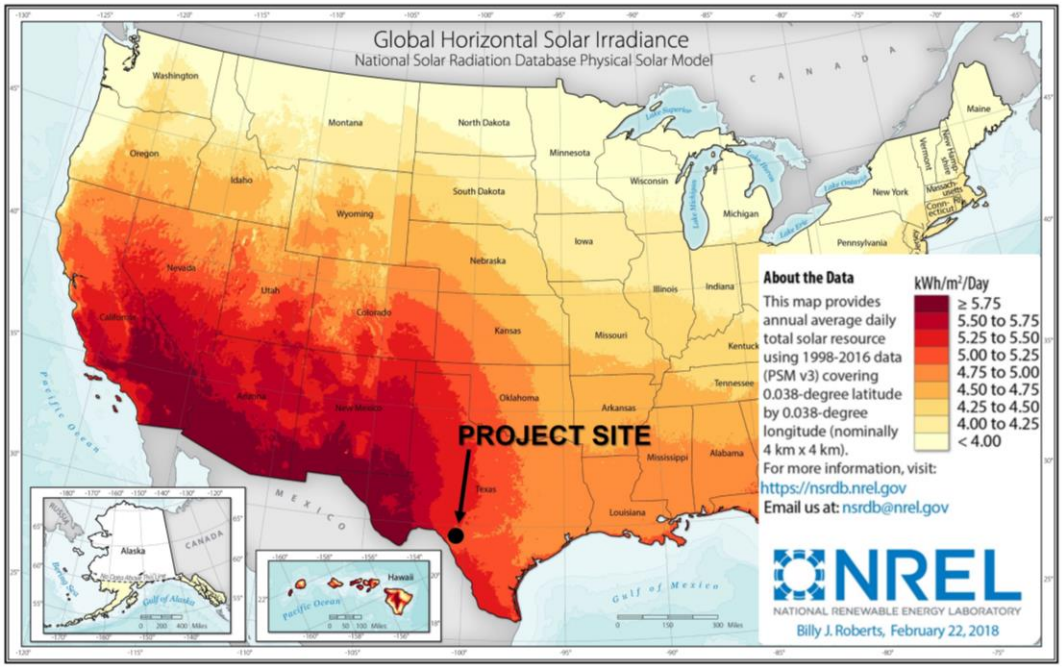
The Sponsor evaluated solar modules and components from various top-tier suppliers in order to select the equipment best suited to the characteristics of the Project site and solar resource. The process for evaluating technology took into consideration elements such as technical performance, commercial offering and warranties. Additionally, the viability of the Project was evaluated based on the cost-effectiveness and reliability of the technologies.

The Sponsor selected the bifacial monocrystalline photovoltaic modules, which are state-of-the-art technology for solar panels. These double-glass modules have the capability of converting incident light on the rear side of the module into electricity, in addition to the electricity generated on the front side. This characteristic makes these modules the best performing and most cost-effective in terms of solar energy generation.

Solar Resource Assessment

According to the National Renewable Energy Laboratory (NREL), the annual average photovoltaic solar resource in Uvalde County is between 5 and 5.25 kilowatt-hours (kWh)/m^2/day (Figure 4).

Figure 4
SOLAR RESOURCE POTENTIAL



Source: National Renewable Energy Laboratory

The energy production of the Project was calculated using Photovoltaic System (PVSyst) software, published by the University of Geneva in Switzerland. It is estimated that with an installed capacity of 200 MW_{AC}, the Project will generate approximately 515.18 GWh of electricity in the first year of operation. Performance losses due to current conversion, dust

and inverter losses were taken into consideration. The energy generation estimate has been vetted by an independent engineer.

3.1.4. Land Acquisition and Right-of-Way Requirements

The site consists of a total of 1,865 acres of private land, which is undeveloped and has been used for agricultural and livestock grazing purposes. The Sponsor secured the land through 30-year ground lease agreements, with an option to extend them for an additional 20-year period. The lease agreements to develop, construct and operate a solar generation facility were executed between June and November 2019.

3.1.5. Project Milestones

Preparation of the Project site began in early January 2023, and construction of the facility is expected to be completed by April 2024. Table 2 presents the status of key milestones for Project implementation.

Table 2
SUMMARY OF PROJECT MILESTONES

Key Milestones	Status
Project site lease agreements	Completed (June-November 2019)
Wetland delineation report	Completed (September 2019)
Critical issues analysis	Completed (November 2019)
Interconnection agreement	Completed (July 2021)
Power purchase agreements	Completed (July 2022)
Engineering, procurement & construction (EPC) contract	Completed (July 2022)
Environmental impact assessment phase I (Project site)	Completed (September 2022)
Commercial operation date (COD)	Expected April 2024

3.1.6. Management and Operation

Arava, established in 2007, is a solar energy company that has developed photovoltaic projects totaling more than 300 MW and currently owns and manages facilities with a combined capacity of approximately 120 MW.

Solar photovoltaic systems are highly reliable and require minimal maintenance. The Sponsor will provide a comprehensive operation and management (O&M) program for the Project through an agreement entered into with an experienced, third-party O&M service provider.

The operation and maintenance services will include construction oversight and quality assurance, scheduled electrical maintenance of PV plants, performance engineering, vegetation management and solar module washing, as well as the complete operation, overhauling and maintenance of inverters.

3.2. Environmental Criteria

3.2.1. Environmental and Health Effects/Impacts

A. Existing Conditions

Historically, the United States has depended to a great extent on fossil fuels for the generation of electricity. These conventional sources of energy adversely affect the environment due to the harmful emissions produced by their processes, including greenhouse gases (GHG) and other pollutants, such as SO_2 and NOx. Consequently, there is a need for affordable and environmentally friendly alternatives to conventional fossil-fuel-based power generation.

On January 20, 2021, President Joe Biden signed an executive order beginning the 30-day process for the U.S. to reenter the Paris Agreement, a legally binding international treaty on climate change. It was adopted by 196 parties at the 21st Conference of Parties in Paris, on December 12, 2015, and entered into force on November 4, 2016. Its goal is to limit global warming to well below 2 degrees Celsius and preferably to 1.5 degrees Celsius, compared to preindustrial levels. To achieve this long-term temperature goal, countries aim to reach a global peak of greenhouse gas emissions as soon as possible to achieve a climate neutral world by mid-century.

According to the U.S. Energy Information Administration (EIA), in 2021, the main source of power generation in Texas was natural gas (48.38%), followed by wind (20.64%) and coal (18.43%).[9] That same year, Texas generated nearly 481,844 GWh of electricity, resulting in the emission of approximately 206 million metric tons of CO_2, 163,412 metric tons of NOx and 163,075 metric tons of SO_2.[10]

B. Project Impacts

Renewable energy projects create an opportunity to generate electricity by using sources that do not produce GHG and criteria pollutants (SO_2, NOx, etc.) like those released by fossil-fuel-based plants. Sunlight is a clean form of renewable energy, which means that it can be used continuously without depleting natural resources and does not produce waste byproducts that require disposal or gas emissions that contribute to air pollution. Moreover, solar energy production does not consume or pollute water, although small amounts may be used to clean the panels from time to time.

The Project will reduce the demand for electricity generated by fossil fuel-based power plants, and since solar-based power generation implies zero direct emissions, it will displace related harmful emissions.

The anticipated environmental outcomes from the installation of 200 MW_{AC} of new renewable energy generation capacity (or approximately 515.18 GWh per year) include the

[9] Source: EIA, Texas Electricity Profiles, (https://www.eia.gov/electricity/state/texas/index.php).
[10] Source: Ibid.

displacement of an estimated 220,085 metric tons/year of CO_2, 164 metric tons/year of NOx and 164 metric tons/year of SO_2.[11]

C. Transboundary Impacts

No negative transboundary impacts are anticipated as a result of the development of the Project; on the contrary, a beneficial effect is anticipated on regional air quality due to the decreased demand on fossil-fuel-fired electrical plants in the region.

3.2.2. Compliance with Applicable Environmental Laws and Regulations

A. Environmental Clearance

The Sponsor conducted the following environmental studies to evaluate the potential impact of implementing the Project, as well as the mitigation measures that might be required.

Phase I Environmental Site Assessment

On September 8, 2022, on behalf the Sponsor, an independent consultant conducted a Phase 1 Environmental Site Assessment (ESA) of the Project site to determine the presence of recognized environmental conditions, historical recognized environmental conditions, controlled recognized environmental conditions and any other conditions on the property, which need to be considered for Project implementation, based on available information.[12] The consultant carried out the following activities:

- *Records review* – Available records were obtained and reviewed to identify any recognized environmental conditions of any kind in connection with the Project site and was able to review historical operations back to 1898.
- *Site reconnaissance* – The consultant performed a site reconnaissance to visually observe any recognized environmental conditions in connection with the Project site.
- *Interviews* – The consultant interviewed available past and present owners, operators and occupants, as well as state and/or local government officials, as applicable, to obtain information about any recognized environmental conditions in connection with the Project site.

No known recognized environmental conditions of any kind were identified in connection with the Project site.

[11] CO_2, NOx and SO_2 calculations are based on the potential emissions avoided as a result of reducing future demand on fossil fuel-based electricity through the use of solar energy equivalent to 515.18 GWh/year and the emission factors for the state of Texas. The emission factors reported for Texas by EIA on November 9, 2022, are: 0.4272 metric tons/megawatt-hour (MWh) for CO_2; 0.0003178 metric tons/MWh for NOx and 0.0003178 metric tons/MWh for SO_2.

[12] According to the ASTM E 1527-13, a recognized environmental condition is defined as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property."

Wetland Delineation Report

The consultant also performed a wetland delineation survey of the Project site on September 24, 2019. Before conducting the field investigation, one area of flowline/riverine system wetlands was identified through the National Wetlands Inventory. Upon field investigation, it was determined that the potential watercourse did not meet the jurisdictional definition of a watercourse. The survey did not identify any areas that met the jurisdictional definition of wetlands or watercourses.

Critical Issues Analysis

A Critical Issues Analysis of the Project site was performed by the consultant on November 1, 2019. The purpose of the analysis was to evaluate any potential environmental constraints, including threatened and endangered species, wetlands and cultural resources as well as any other relevant environmental factors that could affect the construction and operation of the solar facility.

The analysis revealed that 15 federal and state listed species (11 animals and four plants) have the potential of occurring within the Project area. Three of the 11 animal species identified will not be impacted by solar facilities. Of the remaining eight animal and four plant species, six animal and two plant species are considered to have a low probability of occurrence. The four species considered to have a low to moderate probability of occurrence are two animal species, the bald eagle and the golden-cheeked warbler, and two plant species, the Texas snowbells and the Tobusch fishhook cactus. The list of mitigation measures and recommendations to reduce the risk of impact to these species is included in the mitigation measures in Section 3.2.2.B of this document.

B. Mitigation Measures

The critical issues analysis of the Project site included the following mitigation measures and recommendations:

- *Flora.* A Tobusch fishhook cactus survey should be carried out at the Project site prior to clearing, grading or other construction activities begin, to minimize impacts to protected flora and ensure that the cactus is not present. This survey has already been completed by the Sponsor. No specimens and no suitable cactus habitat were identified within the Project area.

- *Protected Species*. To minimize impacts to the bald eagle and the golden-cheeked warbler an environmental consultant will perform a raptor nest study prior to any vegetation clearing to avoid impacts to migratory bird species that may use the site.

C. Pending Environmental Tasks and Authorizations

No environmental authorizations are pending for Project implementation.

3.3. Financial Criteria

Project construction will be financed with equity from the Sponsor and a loan from NADBank and other lenders.

The proposed payment mechanism for the loan is standard for similar renewable energy transactions in the United States. The source of payment will be the revenue obtained from the sale of electricity and renewable energy credits (RECs) generated by the Project to private off-takers and/or in the wholesale electricity market. Project revenue is estimated to be sufficient to: a) cover scheduled operation and maintenance (O&M) expenses; b) pay the debt service on the loan; c) fund any debt service and other reserves; and d) comply with debt service coverage requirements.

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, NADBank proposes to provide a market-rate loan for up to US$65.0 million to the Project Company for the construction of the Project.

4. PUBLIC ACCESS TO INFORMATION

4.1. Public Consultation

On January 25, 2023, NADBank published the draft certification and financing proposal for a 30-day public comment period. The following Project documentation is available upon request:

- Phase I Environmental Site Assessment, September 2022.

4.2. Outreach Activities

NADBank conducted a media search to identify potential public opinion about the Project. A reference to the Project was found on the website below:

- *Uvalde Leader-News* (August 9, 2020) *"Knippa ISD energizes solar plan"* The article describes the Project and approval process for Knippa Independent School District (ISD) to enter into an agreement to limit the appraised tax value of the Project. https://www.uvaldeleadernews.com/articles/knippa-isd-energizes-solar-plan/

In summary, this publication highlights the plan to develop the Project. Opposition to the Project was not detected from the available media coverage. The Sponsor has followed all public consultation requirements in order to comply with applicable environmental clearance and permitting processes.