

# CERTIFICATION AND FINANCING PROPOSAL

# SANTA TERESA SOLAR + STORAGE PROJECT IN DOÑA ANA COUNTY, NEW MEXICO

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# **EXECUTIVE SUMMARY**

### SANTA TERESA SOLAR + STORAGE PROJECT IN DOÑA ANA COUNTY, NEW MEXICO

The transition to a low-carbon, and eventually zero-carbon grid, provides challenges and opportunities as increasing amounts of renewable energy are incorporated into the electric system. One of the main challenges is the intermittent nature of renewable energy sources, such as wind and solar. Grid operators must have the capability to regulate and maximize the efficient use of electricity in the grid from both baseload and intermittent sources, and energy storage systems are one of the simplest and most efficient tools for operators to do that.

The Santa Teresa Solar + Storage Project located in southern New Mexico (the "Project") will accomplish two main goals: increase the amount of solar generation capacity (150 MW<sub>AC</sub>), as well as add a 150-MW<sub>AC</sub> standalone battery energy storage system (BESS) to the El Paso Electric Company (EPE) grid, which serves communities within Doña Ana County, New Mexico and El Paso County, Texas. The BESS component of the project will help integrate the electricity generated by the solar component and other intermittent renewable energy sources in EPE's system, supporting a more reliable power grid by minimizing power disruptions and reducing energy losses resulting from mismatches in supply and demand.

As a regional electricity provider in Texas and New Mexico, EPE seeks clean energy sources to contribute to the renewable portfolio standards (RPS) of both states. While Texas has already exceeded its RPS,<sup>1</sup> EPE is well on the way to complying with New Mexico's RPS, which requires that 50% of electricity come from carbon-free sources by 2030 and 100% by 2045. As of December 31, 2023, 42% of its generation portfolio was from carbon-free sources, and the Project will help the company move closer to reaching the RPS of that state. Even though the emissions displaced by the Project will also benefit residents outside New Mexico, its anticipated outcomes are calculated based on the New Mexico energy generation portfolio and the electricity demand of New Mexico residents.

NADBank participation in the financing for the Project is important, given its unique experience financing renewable energy and energy storage projects and its ability to provide debt structuring support. In this case, NADBank is also filling a gap in the financing needed for the construction of the project and until the Sponsor is able to secure an investment tax credit buyer, near the Project's commercial operation date.

Table 1 highlights key facts regarding the project's eligibility, objective and outcomes as well as the financing proposed by NADBank.

<sup>&</sup>lt;sup>1</sup> The Texas RPS requires 5,880 MW of renewable capacity by 2015 and 10,000 MW by 2025. In 2023, the State had an installed capacity of 55,333 MW, generating 148,005 GWh of electricity from solar and wind sources.

### Table 1 PROJECT OUTLINE

#### **Project Eligibility**

Sector (Type):	Sustainable energy (solar energy and energy storage).	
Location:	Doña Ana County, New Mexico, approximately one mile north of the U.SMexico border.	
Sponsor:	DESRI Asset Holdings, L.L.C.	

#### **Project Summary**

Objective:	The purpose of the Project is to increase the installed capacity of solar and energy storage, which will reduce future demand on fossil fuel-based energy production and allow the system operator to manage the grid more efficiently and reduce the use of ramp- up/ramp-down fossil-fuel power generating plants. The Project will displace harmful emissions, as well as assure the optimum use of electricity from renewable energy sources integrated in the grid.	
Expected Outcomes:	<ul> <li>The combined installation of the 150 megawatts of alternating current (MW<sub>AC</sub>) of the solar energy park and the 150 MW<sub>AC</sub> of the energy storage facility is expected to produce the following results.</li> <li>460,783 megawatt-hours (MWh) per year of clean energy generated by the solar park.<sup>2</sup></li> </ul>	
	<ul> <li>204,000 MWh per year of energy delivered by the Battery Energy Storage System (BESS).<sup>3</sup></li> </ul>	
	<ul> <li>Emissions of GHG avoided of approximately:<sup>4</sup></li> </ul>	
	$\circ$ 228,818 metric tons/year of carbon dioxide (CO <sub>2</sub> ).	
	<ul> <li>121 metric tons/year of nitrogen oxides (NOx).</li> </ul>	
	$\circ$ 30 metric tons/year of sulfur dioxide (SO <sub>2</sub> ).	

<sup>&</sup>lt;sup>2</sup> The estimated energy generation was provided by the Sponsor, based on calculations using an energy production software for photovoltaic systems (PVSyst), which is not inclusive of availability or curtailment estimates. This estimate will be updated by the Independent Engineer prior to Notice to Proceed and Commercial Operation.

<sup>&</sup>lt;sup>3</sup> The estimated energy expected to be delivered by the BESS was calculated by NADBank based on 340 fourhour charge/discharge cycles per year, as provided by the Sponsor. Additional information regarding BESS performance and estimated energy to be delivered is pending from the Independent Engineer. <sup>4</sup> The potential CO<sub>2</sub>, NOx and SO<sub>2</sub> emissions avoided as a result of reducing future demand on fossil fuel-based electricity using clean energy generated by the solar park and the stored energy delivered by the BESS, are calculated based on the corresponding New Mexico emission factors reported by EIA on November 6, 2024: 0.3442 metric tons/megawatt-hour (MWh) for CO<sub>2</sub>; 0.00018144 metric tons/MWh for NOx and 0.00004535 metric tons/MWh for SO<sub>2</sub>. (Source: <u>New Mexico Electricity Profile 2023 - U.S. Energy Information</u> <u>Administration (EIA)https://www.eia.gov/electricity/state/california/</u>).

#### DRAFT BOARD DOCUMENT BD 2025-XX CERTIFICATION AND FINANCING PROPOSAL SANTA TERESA SOLAR + STORAGE PROJECT

<b>Population to Benefit:</b>	249,600 residents	(81,300 households)	5
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### **Financing Summary**

NADBank Loan Amount:	Up to US\$80.0 million.	
Loan Type:	Non-recourse or limited-recourse senior secured loan.	
Borrowers:	Santa Teresa Solar, LLC, Santa Teresa Storage, LLC, and DESRI Santa Teresa Land Holding, L.L.C.	

<sup>&</sup>lt;sup>5</sup> The population benefitted iscalculated based on the equivalent number of households served by the estimated 460,783 MWh/year of clean energy generated by the solar park, the 204,000 MWh/year delivered by the BESS and the average annual electricity consumption per household in New Mexico (8,176 kWh/year) reported by the U.S. Energy Information Administration Agency (EIA)for 2023, (https://www.eia.gov/electricity/state/newmexico/).

## **CERTIFICATION AND FINANCING PROPOSAL**

### SANTA TERESA SOLAR + STORAGE PROJECT IN DOÑA ANA COUNTY, NEW MEXICO

# **1. CERTIFICATION CRITERIA**

### 1.1. Technical Criteria

### **1.1.1. Project Description**

### **Project Location**

The Project will be developed on approximately 970 acres of private land in Doña Ana County, New Mexico. It is located approximately one mile north of the U.S.-Mexico border and five miles west of El Paso, Texas. Figure 1 shows the location of the Project area relative to the U.S.-Mexico border and nearby communities in the region.

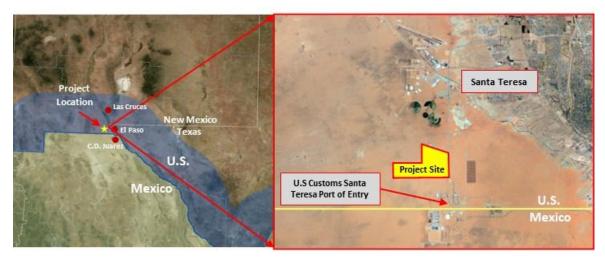


Figure 1 PROJECT LOCATION MAP

The Project will be interconnected to the power grid through El Paso Electric (EPE) infrastructure, which serves communities across state lines in both Doña Ana County, New Mexico and El Paso County, Texas. According to the U.S. Census Bureau, in 2020, the population of Doña Ana County was 219,561 and in El Paso County it was 865,657.

Nearly 20% of the population in both counties live in poverty and areas within southern Doña Ana County have been designated as a nonattainment area for particulate matter and ozone. The air quality designations along with characterizing many communities in Doña Ana County as *"colonias"* due to insufficient access to some basic services, contribute to an acknowledgement of this area as having environmental justice concerns.<sup>6</sup> The electricity generated and discharged by the Project is expected to offset generation from other, more polluting sources, thus resulting in cleaner air in the region.

The implementation of the Project is also expected to benefit communities in both counties by improving grid reliability, increasing energy efficiency and maximizing renewable energy use, while reducing the use of ramp-up/ramp-down fossil-fuel power generating plants. The installation of the 150-MW<sub>AC</sub> of the solar park portion will generate 460,783 MWh per year of clean energy, while the BESS will be capable of delivering up to 204,000 MWh of electricity per year, the equivalent of serving 249,600 customers (81,300 households).<sup>7</sup>

### Project Scope

Pairing power generating technologies, especially solar, with on-site battery energy storage is expected to be the most common trend over the next few years for deploying energy storage. The co-located energy sources offer an arbitrage application, which allows common on-site infrastructure to store renewable-generated energy produced during periods of low electricity prices and low demand.

In line with this dual-located energy source trend, the Project consists of the design, construction and operation of a 150-MW<sub>AC</sub> solar park combined with a 150-MW<sub>AC</sub> four-hour duration BESS, with a step-up substation for interconnection. The preliminary system configuration includes the following components:

### Solar Park

- <u>Modules</u>: Approximately 303,300 bifacial monocrystalline photovoltaic modules with a nominal capacity of 655-665 watts will be installed.<sup>8</sup> The expected useful life of the modules is at least 30 years. The panel provider will be Canadian Solar Co. Ltd, a top-tier global manufacturer.
- <u>*Tracking system*</u>: The modules will be mounted on single-axis tracking arrays, consisting of steel foundations, with an option of ±60 or ±50 degree of tracking range motion. The tracking system provider will be Nextracker Inc., a top-tier global manufacturer.

<sup>&</sup>lt;sup>6</sup> Source: New Mexico Environment Department, (<u>Air-Quality-Issues-in-Dona-Ana-County\_14Feb2024.pdf</u>).

<sup>&</sup>lt;sup>7</sup> The population benefitted is calculated based on equivalent number of households served by the estimated 460,783 MWh/year of clean energy generated by the solar park, the 204,000 MWh/year delivered by the BESS and the average annual electricity consumption per household in New Mexico (8,176 kWh/year) reported by EIA for 2023, (https://www.eia.gov/electricity/state/newmexico/).

<sup>&</sup>lt;sup>8</sup> 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.

<u>Inverters</u>: A total of 48 inverters skids will be installed to transform the direct current from the modules into alternating current, with a maximum operating efficiency of 98.9% and high-power density design and extra thermal stability for less maintenance works. The inverters will be directly coupled to step-up transformers, which will transform the electricity to 34.5 kV. The inverters provider will be Ingeateam Power Technology, S.A., a top-tier global manufacturer.

### BESS

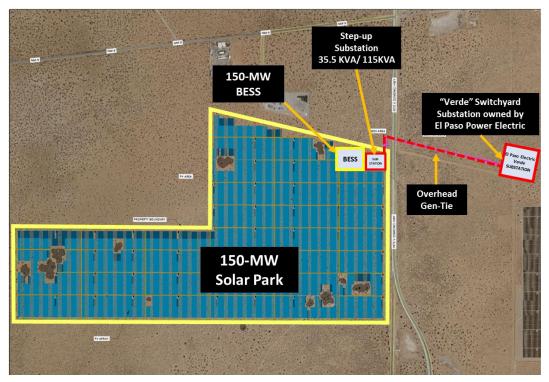
- <u>BESS</u>: The Project will include approximately 156 utility-scale units to store energy from the grid. Each unit has a battery DC capacity of 5.11 megawatt-hours (MWh) and has a customized cooling system, chiller and heating, ventilation, and air conditioning (HVAC) units for thermal control. Liquid cooling and humidity control ensures higher efficiency and a longer battery cycle.
- <u>Energy Management System</u>: This system will integrate meters, sensors and control devices to optimize and track the BESS performance remotely and in real-time. Operational reports can be generated by this component.
- <u>Power conversion system (PCS)</u>. Approximately 39 bidirectional PCS units will be included for converting and conditioning power with the functionality to switch between charging and discharge mode. Each unit has a capacity of 5.4 MW to optimize the operation of the energy storage system.

#### Interconnection

- <u>Step-up substation</u>. The solar park and the BESS will be connected to a substation that includes a main transformer to convert the voltage level (34.5kV<sub>AC</sub>/115kV<sub>AC</sub>). The Step-up substation will be connecting the Project to an overhead Gen-tie line.
- <u>Gen-tie line</u>. The Project includes the construction of an approximately 0.7 miles overhead gen-tie line at 115kV<sub>AC</sub> to an existing switchyard substation owned by the project's transmission provider.

Figure 2 shows the general layout of the Project components.

Figure 2 PROJECT LAYOUT



The Project will include the extension of the gen-tie line to the point of interconnection (POI) in an existing substation owned by EPE. The proposed gen-tie will be an overhead line located in the northeast area of the Project's step-up substation and will cross over the Pete V. Domenici Highway before entering the POI.

### **Project Milestones**

The NADBank loan will be used for the construction of the Project. The overall construction duration of the Project is approximately 18 months, according to the construction schedule included with the Engineering, procurement & construction (EPC) agreement, which estimates final completion in the second quarter of 2026. Table 2 presents the status of key milestones for Project implementation.

Table 2
SUMMARY OF PROJECT MILESTONES

Milestone	Status
Project site lease agreements	Completed (December 2020)
Interconnection agreements (for both, the solar park and	Completed (October 2022 and
the BESS) <sup>9</sup>	amended October 2024)
State right of way access / Gen-tie line crossing	Completed (June 2023)
Cultural resource review	Completed (September 2023)
Power purchase agreement & energy storage agreement	Completed (November 2024)
Updated Phase I Environmental Site Assessments	In Process*
Spill Prevention, Control, and Countermeasure Plan (SPCC) and Stormwater Pollution Prevention Plan (SWPPP)	In Process*
Executed engineering, procurement & construction (EPC) agreements	In Process*
NMDOT access permit	In Process*
General construction building permit	In Process*
Commercial operation date (COD)	Expected June 2026

\*Required prior to construction (February 2025).

### 1.1.2. Technical Feasibility

The Sponsor evaluated the solar park and the BESS components from different top-tier suppliers in order to select the equipment best suited to the characteristics of the Project site. The technology evaluation process included an analysis of the characteristics, reliability and performance of all system components, as well as a power conversion analysis and a review of product certifications, supplier warranties, etc.

The selected technology for the solar park includes 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 this technology of modules the best performing and most cost-effective in terms of solar energy generation.

According to the National Renewable Energy Laboratory (NREL), the annual average photovoltaic solar resource in Doña Ana County is between approximately 5.75 kilowatt-hours (kWh)/m<sup>2</sup>/day. The energy production of the solar park was calculated using Photovoltaic System (PVSyst) software, published by the University of Geneva in Switzerland. It is estimated that with an installed capacity of 150-MW<sub>AC</sub>, the Project will generate approximately 465 GWh of electricity in the first year of operation. Performance losses due to current conversion, dust

<sup>&</sup>lt;sup>9</sup>The Project included two interconnection agreements, the first agreement was signed in June 2022 for 100 MW and the second agreement in October 2022 for a 50 MW, which together allow the interconnection of 150 MW for solar capacity. The terms of the agreements also allow the Sponsor to add an energy storage component. The interconnection rights for the BESS portion of the facility were approved in October 2024, resulting in an amended and restated Large Generator Interconnection Agreement signed in December 2024 and bundled into the current Interconnection Agreement for the solar park.

and inverter losses were taken into consideration. The independent engineer has accepted the energy generation estimates generated by the PVSyst for the Project.

For the BESS component, the batteries selected by the Sponsor are based on lithium-ion phosphate (LiFePO<sub>4</sub>) technology, which is considered one of the safest, best understood and most efficient methods of energy storage on the market. It is the technology most used for this application given its high-cycle efficiency and fast-response time. The performance of the battery represents a favorable balance between cost, energy density, degradation, and cycle life, making it an optimal choice for stationary grid-tied energy storage solutions. Even more importantly, LiFePO<sub>4</sub> is safer than other commonly used lithium-ion alternatives (i.e., cobalt-based alternatives). By the end of 2022 about 9 GW of energy storage had been added to the U.S. grid since 2010. Of the new storage capacity, more than 90% have a duration of 4 hours or less, and in the last few years, lithium-ion batteries have provided about 99% of new capacity.<sup>10</sup> Once the batteries reach the end of their useful life, the Sponsor plans to recycle them in accordance with applicable regulations.

The IE's evaluation of the anticipated performance of the BESS is still pending and will be provided by the Sponsor. Nevertheless, the Independent Engineer (IE) has concluded that the technologies selected for solar generation and energy storage are appropriate and generally consistent with similar projects they have previously evaluated. The Project includes the relevant certifications for the solar park and the BESS, and the proposed design and construction have been developed in accordance with accepted solar and BESS industry practices.

### 1.1.3. Land Acquisition and Right-of-Way Requirements

The 970-acre Project site was secured by the Sponsor and the special-purpose vehicle land holding company, Santa Teresa Land Holdings, L.L.C. ("LandCo"), which leases the land comprising the Project site through two leasing agreement signed in December 2020 and two associated amendments executed in June 2021 to construct the solar park, BESS facility, step-up substation, and related infrastructure for Project interconnection. The lease agreement includes an initial three-year term with the option for an additional one-year extension for project development and a 30-year term with an option to extend the lease twice for at least five more years for project operations. Additionally, the lease agreements include an option to purchase any portion of the property used for the construction of the electrical substation or operation and maintenance building. Currently, the sponsor is expected to exercise this option for 15 acres of the property.

On April 2023, the Sponsor submitted to the New Mexico Department of Transportation (NMDOT) a crossing permit of the overhead transmission line, which was authorized in June 2023. In addition, a state roadway entrance/access right of way permit is pending to obtain from the NMDOT and will need to be obtained prior to construction.

<sup>&</sup>lt;sup>10</sup> Source: National Renewable Energy Laboratory, Moving Beyond 4-Hour Li-Ion Batteries report, (<u>Moving Beyond</u> <u>4-Hour Li-Ion Batteries: Challenges and Opportunities for Long(er)-Duration Energy Storage (nrel.gov)</u>).

### **1.1.4. Project Operations**

Construction is expected to be carried out under two EPC agreements to be executed with the same contractor: one agreement for the solar park, substation and gen-tie line, and another agreement for the BESS. This same company will also be contracted for the maintenance and preventative services of the solar park and the BESS facilities under a long-term operation and maintenance (O&M) agreement currently under negotiation.

#### **Implementation Phase**

The scope of the EPC agreements is currently under negotiation, and will include the design, procurement of equipment and materials, equipment installation, commissioning, and testing of the solar park and the BESS facilities along with the substation and interconnection. As part of the EPC agreements, the contractor will be obligated to provide civil, electrical, and mechanical engineering services, and construction of driveways, access roads and obtain the necessary construction permits.

The overall construction duration of the Project is expected to occur in approximately 18 months, according to the construction schedule proposed by the EPC contractor which assumes the commercial operation date in June 2026.

Based on the IE's opinion, the preliminary terms of the EPC agreement include generally accepted industry provisions in the solar and BESS industries. The Project will be interconnected with El Paso Electric at the transmission level under a Large Generator Interconnection Agreement (LGIA) term. The LGIA specifies that the Project's production and energy discharge will be subject to WECC dispatch rules. The Project Companies are responsible for funding and conducting the design, construction, operation, and maintenance for their share of the interconnection facilities. The Sponsor must also cover the expenses and adaptation of the existing switchyard substation, Verde, owned by El Paso Electric.

The EPC/O&M contractor, already performing preliminary tasks in anticipation of a final agreement, has demonstrated capability to design, procure, and construct other projects of similar size and scope. The contractor has a construction record of completing 378 projects for a total of 12.5 GW of installed capacity. Its experience also includes 6.5 GW of 0&M services since 2012.

#### **Post-Implementation Phase**

The maintenance services for the BESS facilities will be performed by BESS supplier under a Long-term Service Agreement (LTSA) also under negotiation. The preventative maintenance services required by the LTSA will support the BESS units' performance guarantee to fully cover the battery's life. Additionally, the IE considers the terms of the O&M agreement for the solar park to be aligned with industry standards. The Sponsor provided evidence that the strategy for operating the overall Project is aligned with market practices.

### 1.2. Environmental Criteria

### 1.2.1. Environmental and Health Effects/Impacts

### A. Existing Conditions

Historically, the United States has relied to a great extent on fossil fuels for the generation of electricity. According to the EIA, in 2023, the main sources of power generation in New Mexico were wind (38%), followed by natural gas (36.2%), and Coal (18.7%).<sup>11</sup> The conventional sources of energy represent more than 55% of this energy mix and adversely affect the environment due to the harmful emissions produced by their processes, including greenhouse gases (GHG) and other pollutants, such as SO<sub>2</sub> and NOx. Considering the 2023 energy portfolio, New Mexico generated nearly 39,270 GWh of electricity, resulting in the emission of approximately 13.5 million metric tons of  $CO_2$ , 7,124 thousand metric tons of NOx and 1,780 thousand metric tons of SO<sub>2</sub>.<sup>12</sup> Consequently, there is a need for affordable and environmentally friendly alternatives to conventional fossil-fuel-based power generation.

However, the transition to a low-carbon, and eventually zero-carbon grid, provides challenges and opportunities as increasing amounts of renewable energy are incorporated into the electric system. One of the main challenges is the intermittent nature of renewable energy sources, such as wind and solar, for which storage is a relevant solution.

In 2019, the New Mexico legislature passed the Energy Transition Act (ETA) to help the transition from fossil fuels towards a more renewable and clean energy-based economy. The ETA sets statewide renewable energy portfolio standards that will make the state a leader in renewable energy. The ETA established the target of 50% renewable energy by 2030 and 100% by 2045 for its energy supply.<sup>13</sup> New Mexico's electricity supply today is still predominantly fossil fuel based, and it has historically been an exporter of thermal-sourced power supply using coal, oil, and natural gas fuels to markets such as California, Arizona, and Texas. As states and corporations increasingly move toward clean energy resources, the vast renewable resource potential in New Mexico creates an opportunity for the state to become a major supplier of clean energy needs of other states while continuing to serve the needs of in-state customers.<sup>14</sup> Efforts to increase renewable generation, such as the proposed Project, and New Mexico's commitment to retire coal and other fossil fuel generation facilities are critical to meeting these energy portfolio goals.

### B. Expected Environmental/Human Health Outcomes

Renewable energy projects create an opportunity to generate electricity by using sources that do not produce GHG and criteria pollutants (SO<sub>2</sub>, NOx, etc.) like those released by fossil-fuelbased 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

<sup>&</sup>lt;sup>11</sup> Source: EIA, New Mexico Electricity Profiles, (<u>https://www.eia.gov/electricity/state/newmexico/</u>).

<sup>&</sup>lt;sup>12</sup> Source: Ibid.

<sup>&</sup>lt;sup>13</sup> Source: Indian Affairs Department of New Mexico, (<u>https://www.iad.nm.gov/wp-content/uploads/2020/02/FINAL-ETA-Infographic.pdf</u>).

<sup>&</sup>lt;sup>14</sup> Source: New Mexico Renewable Energy Transmission Authority (New Mexico RETA), (<u>https://nmreta.com/wp-content/uploads/2022/03/RETA\_2022\_UPDATE\_TransmissionStudy21.pdf</u>).

require disposal or gas emissions that contribute to air pollution. Moreover, solar energy production and energy storage facilities do not consume or pollute water, although small amounts may be used to clean the solar panels from time to time.

Battery storage systems help smooth out the delivery of intermittent resources, such as wind and solar, by storing energy and delivering it when demand increases. They also help prevent emissions by reducing the need for fossil-fuel power plants to regulate constant changes in energy supply and demand. As the energy supply mix becomes cleaner with low- and no-carbon resources, energy storage will help integrate that supply mix into the grid more easily and reliably.

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

The Project is expected to generate environmental and human health benefits related to the combined installation of the 150 megawatts of alternating current ( $MW_{AC}$ ) of the solar energy park and the 150  $MW_{AC}$  of the energy storage facility is expected to produce the following results.

- 460,783 megawatt-hours (MWh) per year of clean energy generated by the solar park.<sup>15</sup>
- 204,000 MWh per year of energy delivered by the Battery Energy Storage System (BESS).<sup>16</sup>
- Emissions of GHG avoided of approximately:<sup>17</sup>
  - $\circ$  228,818 metric tons/year of carbon dioxide (CO<sub>2</sub>).
  - 121 metric tons/year of nitrogen oxides (NOx).
  - 30 metric tons/year of sulfur dioxide (SO<sub>2</sub>).

#### C. Other Project Benefits

The Project is also expected to benefit the region by creating employment opportunities and additional income during its construction and operation. The jobs expected to be generated include up to 200 during construction and four on-site jobs during Project operation.

<sup>&</sup>lt;sup>15</sup> The estimated energy generation was provided by the Sponsor, based on calculations using an energy production software for photovoltaic systems (PVSyst), which is not inclusive of availability or curtailment estimates. This estimate will be updated by the Independent Engineer prior to Notice to Proceed and Commercial Operation.
<sup>16</sup> The estimated energy expected to be delivered by the BESS component was calculated by NADBank based on information 340, four-hour charge/discharge cycles per year, as provided by the sponsor. Additional information regarding BESS performance and estimated energy to be delivered is pending from the IE.

<sup>&</sup>lt;sup>17</sup> CO<sub>2</sub>, NOx and SO<sub>2</sub> calculations are based on the potential emissions avoided as a result of reducing future demand on fossil fuel-based electricity using clean energy generated by solar and the stored energy delivered by the BESS, based on emission factors of electricity based on the New Mexico energy matrix. The related emission factors reported for New Mexico by EIA on November 6, 2024, are: 0.3442 metric tons/megawatt-hour (MWh) for CO<sub>2</sub>; 0.00018144 metric tons/MWh for NOx and 0.00004535 metric tons/MWh for SO<sub>2</sub>. (source: <u>New Mexico Electricity</u> <u>Profile 2023 - U.S. Energy Information Administration (EIA)https://www.eia.gov/electricity/state/california/</u>).

### **D.** Transboundary Impacts

No transboundary impacts are anticipated due to the implementation 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. Any project component that could have a negative transboundary impact will require appropriate mitigation or will be determined ineligible for financing.

### **1.2.2. Compliance with Applicable Environmental Laws and Regulations**

The proposed Project will be located in an undisturbed area identified by Doña Ana County for commercial and medium industrial activities. The Sponsor is obligated to be in compliance with the federal, state and local agencies to implement the Project.

For any construction that disturbs at least one acre of land, U.S. Environmental Protection Agency (EPA) requires operators to obtain a permit under the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP). To comply, the applicant must develop a Stormwater Pollution Prevention Plan (SWPPP) and a Spill Prevention, Control, and Countermeasure Plan (SPCC). EPA maintains its authority to issue the CGP in only three states, one of which is New Mexico, but depends on New Mexico Environment Department (NMED) for initial review and post-issuance inspection services. Therefore, the permit application, SWPPP, and SPCC must be submitted to the state prior to publishing a Notice of Intent for the CGP. The Sponsor indicated that the EPC contractor would prepare and obtain the approvals prior to construction. All pending permits/authorizations will be obtained prior to NADBank's first disbursement.

### A. Environmental Studies or Consultations

The Sponsor conducted several studies to determine potential impacts to the environment in the Project area, as well as to identify any mitigation measures that might be required. The studies and efforts conducted by the Sponsor for the proposed Project, summarized below and utilize best management practices to identify and avoid potential Project impacts.

### <u>Phase I Environmental Site Assessments</u>

In August 2023, an independent consultant prepared two Phase I Environmental Site Assessments for the Project property. One assessment includes a 640-acre-tract of the Project area, including the area for the substation and gen-tie line; the second assessment includes a 330-acre-tract of the Project area. Both assessments were carried out by the same specialist during the same period. The whole property consists of approximately 970-acre-tract of undeveloped land.

As part of the scope of work, a search of regulatory agency records was performed to evaluate potential contamination of the property and interviews with the owner of the property regarding the environmental history and background of the property. Based on the historical information, the Project property is undeveloped land improved with only an access road north of the site leading to Highway 9 and a dirt road in the southeast portion of the site.

No recognized environmental conditions were identified in connection with the Project site or on adjoining properties. However, because the Phase I ESAs have expired, the Sponsor is updating the studies, the results of which are not expected to change. The updated report is expected in January 2025.

#### Threatened and Endangered Species Assessment

In November 2021, an independent consultant prepared a Threatened and Endangered Species Assessment report. The site was observed to be vacant, undeveloped land, the ground surface is comprised of scattered desert scrub and vegetation commonly associated with the Chihuahua Desert. The Information for Planning and Consultation (IPaC) system of the U.S. Fish & Wildlife Service was utilized to generate a list of potential federally endangered species that may be located in the vicinity of the site. The independent consultant concluded that no suitable habitat exists on the Project site for any federally listed species identified for the area; federally listed species were not observed in the Project site or in the vicinity during the field assessment; and that the Project would have no effect on federally listed species.

The assessment also reported on the potential effects to eagles. In this case, the IPaC report identified that the Bald Eagle may be present in the vicinity of the Project site during breeding season. In addition, potential effects to migratory birds were assessed in the report and, the independent consultant concluded that the Project site generally does not contain suitable habitat for breeding or migrating migratory birds, and that migratory birds are not expected to pose a significant constraint to Project development. However, the consultant reported that three active nests were observed during field observations in 2021 and recommended that a migratory bird nest survey be conducted as a best practice to evaluate the potential presence of avian species at the Project site, if site clearing is to begin and be conducted during the nesting season (March through August).

The Sponsor has committed to having a qualified consultant conduct pre-construction site surveys to check for migratory bird nests and to observe for any endangered or protected species, within the 2-week period prior construction, following industry standard practices. Any nests identified during pre-construction or site activity will be cordoned off, and an appropriate buffer will be set.

### <u>Cultural Resource Assessment</u>

In September 2023, an independent consultant conducted a Cultural Resources Survey report. An area of approximately 1,015-acres was observed from October 12–19, 2021. Twelve archaeological sites were recorded, four of which were previously recorded and eight newly recorded as a result of the assessment. In addition, 124 isolated finds were recorded during the survey. Following the consultant's recommendation for a 30-foot buffer to be established for archaeological sites, the Sponsor has incorporated the buffer zones into the layout and design of the Project. Additionally, the sponsor is developing an unanticipated discovery plan, which has been reviewed by the IE.

The Project complies with applicable environmental laws and regulations. Any necessary mitigation measures are proposed and described in the next section.

### **B.** Environmental Clearance and Permitting

The County of Doña Ana has adopted a set of requirements for managing urban runoff, including stormwater, from construction and land development activities. The Sponsor is required to prepare and submit the SWPPP and SPCC, as described above, to obtain County approvals, as well. Additionally, the Sponsor must obtain a general construction permit from the County prior to construction in February 2025. An entrance permit issued by the NMDOT will also be required to access a state roadway.

According to the independent engineer's review, the permits identified are considered standard for solar and energy storage projects located in New Mexico, and it does not appear that permitting activities will cause significant impacts to the Project schedule or budget. All pending permits/authorizations will be obtained prior to NADBank's first disbursement.

The Project complies with applicable environmental laws and regulations. Any necessary mitigation measures are proposed and described in the next section.

### C. Mitigation Measures

The Sponsor will contract a qualified environmental specialist to perform pre-construction onsite surveys to identify potential protected species or active nests and appropriate buffer zones will be established during soil disturbance activities. Additionally, the design of the Project has incorporated buffer zones for identified cultural resource avoidance areas.

The SPCC and SWPP environmental clearances are expected to be obtained for the Project, and the Sponsor will need to comply with the indicated mitigation measures. In addition, Project implementation will follow applicable county and state regulations and building codes, as well as the best management practices, including but not limited to the actions listed below.

- *Solid waste*. Any waste generated during the construction and operational phases of the Project will be disposed of in accordance with applicable regulations. All waste materials shall be legally disposed of off-site.
- <u>Hazardous waste</u>. Limited hazardous material will be used on site, such as diesel fuel, gasoline and motor oil vehicles. Appropriate spill containment and cleanup kits will be maintained.
- *Water.* The use of water will be required for onsite irrigation and construction activities. Water use must follow applicable local and state guidelines for water conservation.
- <u>Soil</u>. Near surface soils are expected to be coarse grained and could become unstable with typical earthwork and under construction loads. Effective drainage systems should be completed early in the construction sequence and maintained to avoid potential issues.

At the end of the Project's operational phase, following the expiration of the Project's useful life, the facility will be decommissioned, which will include project components being removed from the Project site in accordance with final disposal regulations.

### D. Pending Environmental Tasks and Authorizations

The Sponsor is completing updates to the Phase I ESAs performed for Project sites. The Sponsor has initiated these activities, and the results are expected in January 2025. In addition, the SPCC Plan and SWPPP must be submitted to the County for Project approval prior to construction. The Sponsor is coordinating with the EPC contractor to complete all pending tasks.

### 1.2.3. Environmental and Social (E&S) Due-diligence Process

### A. Project E&S Category

Based on its Environmental, Social and Governance (ESG) Policy for evaluating and classifying potential ESG risks in its financial operations, NADBank determined that the proposed Project and its investments fall within the B category, which is assigned to transactions when adverse environmental and social impacts are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures and follow international best practices. The potential adverse environmental impacts of the Project on human populations or environmentally important areas are considered to be a medium risk.<sup>18</sup>

### **B. E&S Due Diligence Conclusions**

NADBank reviewed the Project documentation to determine the environmental and social risks associated with the project implementation and concluded that the Sponsor, Project location, planning, design and environmental documents, as well as the Project tasks, have acceptable environmental and social practices in place aligned with the regulations applicable to the solar and energy storage industries. Additionally, the IE reviewed the Project files provided by the Sponsor to assess compliance with Equator Principles as they relate to the construction and operation of the Project for the purposes of project finance.<sup>19</sup> Based on the available Project information and the IE's opinion, the Sponsor has engaged and consulted with the relevant stakeholders according to federal, state, and county laws and regulations; public involvement processes have also been implemented by regulatory agencies as a component of the Project permitting and approval processes.

<sup>18</sup> Source: NADBank Environmental, Social and Governance (ESG) Policy,

(https://www.nadb.org/uploads/content/files/Policies/NADBank%20ESG%20Policy%20(Eng).pdf)

<sup>&</sup>lt;sup>19</sup> The Equator Principles are standards that project developers are required to meet to ensure that the projects that banks finance and advise on are developed in a manner that is socially responsible and reflects sound environmental management practices.

### C. Summary of Proposed Mitigation Measures

No additional mitigation measures are needed since the Sponsor provided the documentation to support compliance with its E&S obligations.

### **1.3.** 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 hybrid solar and energy storage transactions in the United States. The source of payment will be the revenue obtained from the sale of power, renewable energy credits, income tax credits, and energy storage capacity under one or more long-term power purchase and energy storage service agreements with an investment grade-rated entity. Project revenue is estimated to be sufficient to: (i) cover scheduled 0&M expenses; (ii) pay the debt service on the senior loan; (iii) fund any debt service and other reserves; and (vi) 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\$80.0 million to the Borrowers for construction of the Project.

# 2. PUBLIC ACCESS TO INFORMATION

### 2.1. Public Consultation

On January 13, 2025, NADBank published the draft certification and financing proposal for a 30day public comment period. The following Project documentation is available upon request:

- Phase I Environmental Site Assessment for project area (640-acre tract), substation and Gen-tie, August 2023.
- Phase I Environmental Site Assessment for project area (330-acre tract), August 2023.

### 2.2. Outreach Activities

The Sponsor has published information about its investments, operations, financial goals and business on its official website. In addition, the Sponsor has provided information about the Project to different media and shared information about its project pipeline in 24 states in the United States.

Furthermore, EPE has published information related to the Sponsor's application for approval of Long-term Power Purchase Agreements under the terms and conditions of the New Mexico Public Regulation Commission. This information is limited but is available for public consultation.

NADBank's review of publicly available information about the Project Sponsor, its investments and business practices did not detect any relevant concerns related to a potential investment in the proposed Project. The Sponsor has followed all public consultation requirements in order to comply with applicable environmental assessment and permitting processes.