AES Illumina, Photo: DOE

DRAFT
ENVIRONMENTAL ASSESSMENT

Jobos and Salinas Projects

Clean Flexible Energy, LLC
(Salinas and Guayama, Puerto Rico)

Department of Energy, Loan Programs Office –
Energy Infrastructure Reinvestment Program

DOE/EA-2256

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Acronyms and Abbreviations

4h	4-hour storage capacity
ABFE maps	Puerto Rico Advisory Base Flood Elevation Maps
Act 17	Puerto Rico Energy Public Policy Act of 2019
ADT	average daily traffic
APE	area of potential effects
Applicant	AES Corporation
BESS	battery energy storage system
BMP	best management practice
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CES Plan	Control of Erosion and Prevention of Sedimentation Plan
CFC	chlorofluorocarbons
CFE	Clean Flexible Energy, LLC
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
CUB	Land Use Consultation (*Spanish acronym*)
CZIB	Coastal Zone Inland Boundary
dB	decibel
dBA	A-weighted decibel
DOE	U.S. Department of Energy
DRNA	Department of Natural and Environmental Resources (*Spanish acronym*)
EA	Environmental Assessment
EIR Program	Energy Infrastructure Reinvestment Program
EJ	environmental justice
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 2005
EQB	Environmental Quality Board
ESSA	energy storage and services agreement
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
gen-tie	generation tie
GHG	greenhouse gas
HV	high voltage
ICP	Institute of Puerto Rican Culture (*Spanish acronym*)
IPaC	Information for Planning and Consultation
IRP	Integrated Resource Plan

ITS	Incidental Take Statement
Jobos Project	Jobos Solar + BESS
Joint Permit Regulation	Joint Permit Regulation for Evaluating and Expediting Permits Related to Land Development and Use and Operation of Businesses
kV	kilovolt
LOS	level of service
LPO	Loan Programs Office
MVA	megavolt-ampere
MW	megawatt
MWh	megawatt hours
MWn	megawatt, nominal
MWp	megawatt, peak
NATA	National-Scale Air Toxics Assessment
NEPA	National Environmental Policy Act
NEPR	Puerto Rico Energy Bureau (*Spanish acronym*)
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NTP	notice to proceed
O&M	operations and maintenance
O_3	ozone
OGPe	Permits Management Office (*Spanish acronym*)
PBO	Programmatic Biological Opinion
PCS	power control system
POI	point of interconnection
PPOA	power purchase and operating agreement
PR	Puerto Rico Highway
PR100	Puerto Rico Grid Resilience and Transition to 100% Renewable Energy Study
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRCZMP	Puerto Rico Coastal Zone Management Program
PREPA	Puerto Rico Electric Power Authority
PRIDCO	Puerto Rican Industrial Development Company
PRPB	Puerto Rico Planning Board
PV	photovoltaic
RCCR	Regulation for Control of Noise Pollution (Spanish acronym)
SA	site assessment
Salinas Project	Salinas Solar + BESS
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheet

SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Office
SWPPP	Stormwater Pollution Prevention Plan
TC	transmission center
U.S.C.	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
veh/h	vehicles per hour

1.0 PURPOSE AND NEED

1.1 Introduction

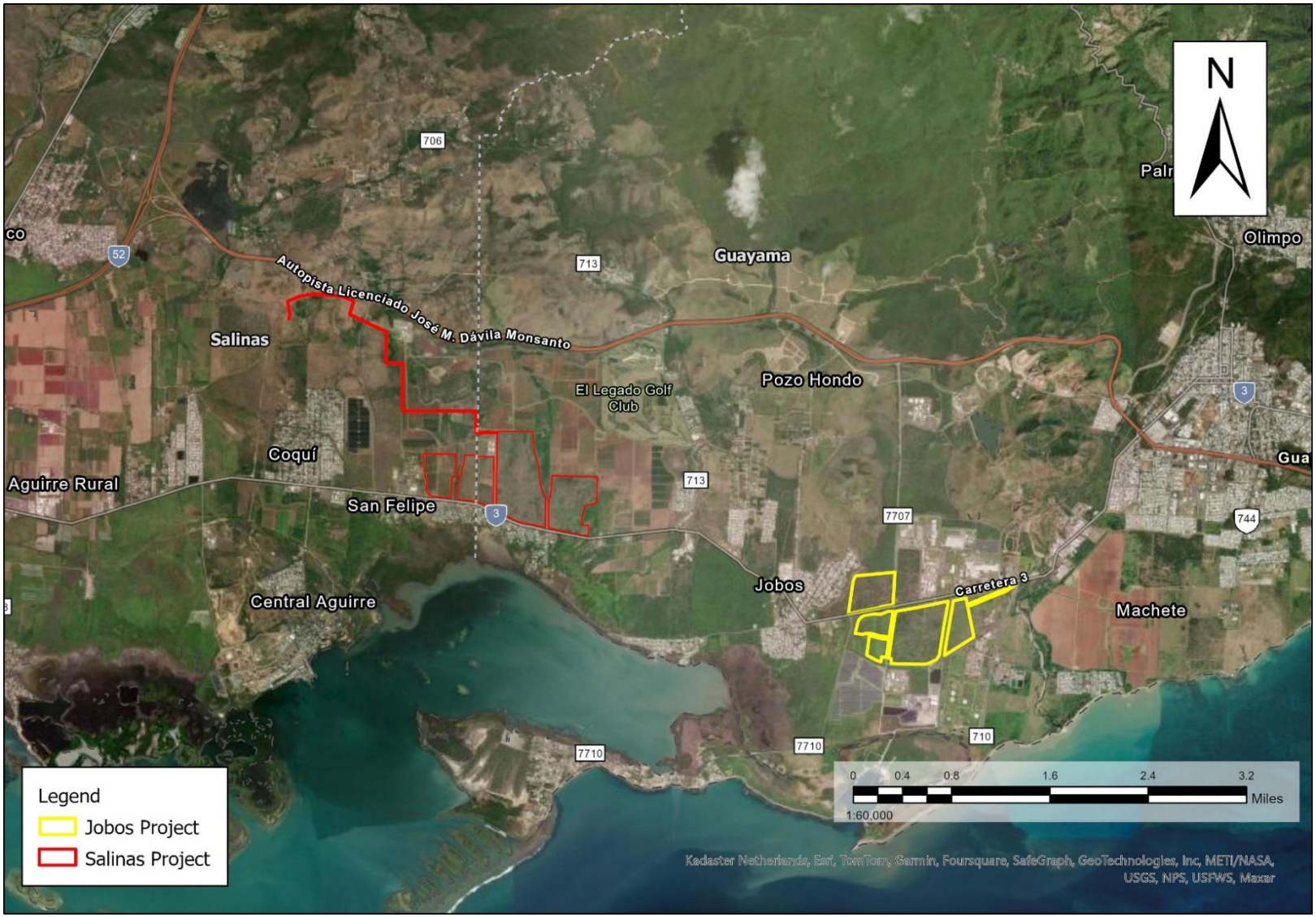
Clean Flexible Energy, LLC (CFE), an affiliate of AES Corporation (Applicant), proposes to construct solar a photovoltaic (PV) and battery energy storage system (BESS) installation at two sites (Jobos and Salinas) in the municipalities of Salinas and Guayama, Puerto Rico (see Figure 1). The Jobos site is owned by the Puerto Rican Industrial Development Company (PRIDCO) (adjacent to Puerto Rico Highway [PR] 7707 and PR-3, Jobos Ward, Guayama, Puerto Rico 00784). The Jobos solar project consists of a 80-megawatt (MW) PV facility, a 110 MW BESS, an on-site step-up substation, onsite offices and control building, and a 1,000-meter, 115-kilovolt (kV) transmission line. The PV facility, onsite offices and control room, and 110 MW BESS encompass 318 acres; the 1,000-meter transmission line will connect the solar project to the existing Jobos Transmission Center (TC) substation on PR-3.

The Salinas site is on private properties between the Aguirre and Jobos neighborhoods in the municipalities of Salinas and Guayama, respectively. The Salinas solar project is located between PR-53 (to the north), PR-3 (to the south), PR-713 (to the east), and PR-706 (to the west). The Salinas solar project consists of a 120 MW PV facility, a 175 MW BESS, an on-site electrical substation, on-site step-up substation, on-site offices and control room, and a 4,717-meter, 115 kV transmission line. The PV facility, onsite offices and control room, and electrical substation encompass 525 acres; the 4,717-meter transmission line will connect the solar project to an existing electrical substation on a nearby solar PV development site owned by Ciro Group, LLC.

CFE has applied for a loan guarantee pursuant to the U.S. Department of Energy (DOE) Title XVII Energy Infrastructure Reinvestment Program, as authorized by the Energy Policy Act of 2005 (EPAct), as amended. Under Title XVII, DOE is authorized to provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment in the United States. The Title XVII program is administered by DOE's Loan Programs Office (LPO). LPO originates, underwrites, and services loans and loan guarantees to eligible applicants for projects that accelerate commercial deployment of innovative energy technology. LPO has reviewed the application and determined that it is eligible for a potential loan guarantee (10 Code of Federal Regulations [CFR] Parts 609.3 and 609.5).

The decision as to whether to provide a loan guarantee (i.e., Federal financial assistance) constitutes a major Federal action, which requires DOE to conduct an environmental review under the National Environmental Policy Act (NEPA). LPO has prepared this Environmental Assessment (EA) in accordance with NEPA (42 United States Code [U.S.C.] 4321 et seq.), the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR Parts 1500–1508), and the DOE NEPA implementing regulations (10 CFR Part 1021). LPO is using the NEPA process to inform its decision as to whether to issue a loan guarantee to the Applicant to support the projects.

Figure 1. Project Location Map



1.2 Purpose and Need for Agency Action

The purpose and need for DOE's proposed action, the issuance of a federal loan guarantee, is to implement DOE's authority under Title XVII of the EPAct, which was reauthorized, amended, and revised by the Inflation Reduction Act of 2022 to create the Energy Infrastructure Reinvestment Program (EIR Program) (Section 1706). The purpose of the EIR Program is to finance projects and facilities in the U.S. that retool, repower, repurpose, or replace energy infrastructure that has ceased operations or enable operating energy infrastructure to avoid, reduce, utilize, or sequester air pollutants or anthropogenic emissions of greenhouse gases (GHGs) (42 U.S.C. 16517[a][2]).

1.3 Background

AES Corporation is a provider of power generation and utility services. CFE, which is wholly owned by AES, will develop, construct, own, and operate the Jobos and Salinas solar projects. The company's objective is to meet its contractual obligation with the Puerto Rico Electric Power Authority (PREPA) to provide renewable energy for Puerto Rico by constructing the Jobos and Salinas solar projects. CFE has two 25-year power purchase and operating agreements (PPOAs) and energy storage and services agreements (ESSAs) with PREPA that will contribute to the goal of the Puerto Rico Energy Public Policy Act of 2019 (Act 17) by building and operating the Jobos and Salinas solar projects.

Act 17 set a goal that calls for meeting 100 percent of the island's electricity needs with renewable energy by 2050. On Monday April 1, 2024, DOE and the Federal Emergency Management Agency (FEMA) released the *Puerto Rico Grid Resilience and Transition to 100% Renewable Energy Study* (PR100), which concluded that the Act 17 goal can be achieved through utility-scale renewable power generation, distributed energy sources, and grid stabilization measures (DOE and FEMA 2024).

The EIR Program is central to LPO's mission to serve as a "bridge to bankability" for clean energy projects that are critical to decarbonizing the energy sector. With the EIR Program, LPO can support projects that reinvest in energy infrastructure throughout the United States. This includes projects that upgrade energy infrastructure so it can operate more efficiently, both with higher output and lower emissions; replace retired energy infrastructure with clean energy infrastructure; and build new facilities for clean energy purposes that use legacy energy infrastructure.

1.4 Scope of Environmental Assessment

In accordance with NEPA, LPO is preparing this EA to address issues concerning construction and operation of the solar and storage projects at the Jobos and Salinas sites (see Figure 1). If no significant impacts are identified during preparation of this EA, DOE will issue a Finding of No Significant Impact. If potentially significant impacts are identified, DOE will prepare an Environmental Impact Statement. As presented below, natural, physical, and socioeconomic resources that may be subject to potentially significant environmental issues are identified, as are resources that would not be subject to potentially significant environmental issues, thereby narrowing the scope of the environmental review to those environmental issues deserving of study.

The Applicant proposes to construct two solar projects, the Jobos solar project and the Salinas solar project. The solar projects are approximately 4 miles apart, with Jobos consisting of a 318-acre solar field and associated infrastructure and a 1,000-meter transmission line, and Salinas consisting of a 525-acre solar field and associated infrastructure and a 4,717-meter transmission line. The solar projects would tie into existing substations that are owned and operated by electric utility companies.

In determining the scope of the environmental review and resources that may be subject to potentially significant impacts, LPO reviewed regulatory agency consultations (see Appendix A) and the permits, authorizations, and approvals associated with each solar project (see Appendix B).

This EA describes the proposed solar project and its potential impacts on multiple resource areas due to the construction and operation. The resource areas assessed in this EA are:

- Cultural resources
- Water resources, including wetlands, surface water, and floodplains
- Noise
- Transportation
- Aesthetic and visual resources
- Biological resources
- Socioeconomics and environmental justice
- Soils and prime farmlands
- Land use

The resource areas were identified as potentially being affected by the Jobos and/or Salinas solar projects; therefore, each was assessed to determine the significance of the impacts (see Section 3). The assessment combined desktop research and analysis of existing available information and select field studies, including site assessments related to the presence/absence of wetlands, water bodies, floodplains, cultural resources, threatened or endangered species, wildlife, and vegetation.

Resource areas not included in the scope of issues analyzed in detail in this EA include Native American interests geology, groundwater, air quality, health and safety, waste management, and recreation. A brief review of those resources is presented below. In addition, as portions of the Jobos project site includes the Fibers Public Supply Wells Superfund site, additional information is provided below.

Given the absence of Federally recognized Native American tribes in Puerto Rico, DOE has not assessed impacts on Native American interests or conducted tribal communications regarding the Jobos and Salinas Projects. Geology is not included in this EA because the construction of surface PV facilities and storage features of the Jobos and Salinas Projects would have no significant impact on or from the underlying geology. Groundwater would not be affected by installation and operation of the solar PV facilities and storage systems, the emissions associated with the construction of the Jobos and Salinas projects, and lack of emissions associated with operation would not result in a significant impact on air quality. In addition, construction and operation of the projects would not result in any significant health and safety or waste management concerns, as the construction and operation of the Jobos and Salinas projects would be in accordance with applicable health and safety and waste management standards and practices. Recreation is also not included in this EA because no reasonably foreseeable impacts on known recreational resources would occur, given the past and current industrial and agricultural land uses associated with the project sites.

Portions of the Jobos Project site are associated with the Fibers Public Supply Wells Superfund site, which is being managed by the U.S. Environmental Protection Agency (EPA) pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Fibers Public Supply Wells Superfund site was added to EPA's National Priorities List in 1984 due to soil contamination—specifically, asbestos-containing materials and groundwater with volatile organic compounds, including tetrachloroethylene, were detected in the Puerto Rico Aqueduct and Sewer Authority's (PRASA's) public water supply wells. Cleanup actions associated with removal and off-site disposal of contaminated soils were completed around 1994. The Superfund site is currently part of a long-term remedial action (EPA 2022)

involving extraction wells and a groundwater treatment system. The treatment system and four of the five extraction wells are on the property where the Jobos solar project would be developed. Remedial activities and improvements to the groundwater treatment system would coincide with construction of the PV facility.

The Jobos Project was designed in compliance with EPA requirements. It would provide access for continuing remedial activities as well as groundwater monitoring, with buffer zones and protective measures in place around existing groundwater treatment areas and monitoring wells at the site. Independent roadways would be provided for monitoring system access. A clearance area of 100 by 100 feet would be established around recovery and cluster wells, and a clearance area of 50 by 50 feet would be established around individual monitoring wells. On April 22, 2022, EPA issued a letter of no objection to the Applicant, stating that the Jobos Project would not interfere with the remedial activities on the site; however, the Applicant must notify EPA prior to initiation of any construction activities. Because EPA has reviewed the activities associated with the Jobos Project and concurred that they would not interfere with the ongoing remedial actions, further review associated with the Superfund site and groundwater are not included in this EA.

2.0 DESCRIPTION OF THE PROPOSED ACTION

The DOE LPO Proposed Action is to issue a loan guarantee to CFE (wholly owned by the AES Corporation) to develop PV and BESS installations at two sites (Jobos and Salinas) in the municipalities of Salinas and Guayama, Puerto Rico. The Jobos solar project consists of a 80 MW PV facility, a 110 MW BESS, on-site step-up substation, on-site offices and control building, and a 1,000-meter 115 kV transmission line. The PV facility, onsite offices and control room, and 110 MW BESS encompass 318 acres; the 1,000-meter transmission line will connect the solar project to the existing Jobos TC substation on PR-3. The Salinas solar project consists of a 120 MW PV facility, a 175 MW BESS, an on-site electrical substation, onsite offices and control room, and a 4,717-meter 115 kV transmission line. The PV facility, onsite offices and control room, and electrical substation encompass 525 acres; the 4,717-meter transmission line will connect the solar project to an existing electrical substation on a nearby solar PV development site owned by Ciro Group, LLC. The projects will use established technology to convert solar energy into electricity, which will then be fed into Puerto Rico's electrical grid. The two sites that make up the Proposed Action are in the neighboring municipalities of Guayama and Salinas in southeastern Puerto Rico.

The projects are approximately 50 miles south of San Juan, Puerto Rico, in the Subtropical Dry Forest ecological life zone (Ewel and Whitmore 1973). This zone is in the orographic rain shadow of the Cordillera Central, the main mountain range of Puerto Rico along the southern coast of the island. The natural barrier provided by the mountains results in infrequent rainfall, ranging, on average, from 24 to 38 inches annually, mostly during the months of September to November. The zone's climatological conditions favor low-moisture deciduous vegetation, which usually forms ground cover. Plant life in the region consists of tree canopies, which are typically broad and flat with sparse foliage, in conjunction with small-leafed and thorned woody species.

The project properties have been extensively altered by past agricultural activity, particularly during the 19th and early 20th century when both sites were used for sugar cane production and possibly cattle grazing. This trend continued at the Salinas site with the construction of infrastructure and utilities related to development of a now-abandoned agro-industrial seed production facility.

Jobos Project

The Jobos Project will generate 80 MW, and have a storage capacity of 110 MW. The Project site is both north and south of PR-3, between mile posts 88.2 and 88.9, in the Jobos Ward of Guayama, approximately 50 miles south of Puerto Rico's capital city of San Juan. The PRIDCO owns the land where

the Jobos Project will be located. CFE is leasing approximately 318 acres, consisting of five parcels, as shown in Figure 2**.** All parcels are under 25-year leases with automatic renewals. A 5.9-acre easement is being sought from the Puerto Rico Land Authority to develop an interconnection line to the existing Jobos TC Substation. See Figure 3 for a detailed site layout plan for the Jobos Project.

All energy generated by the Jobos Project, as well as stored within the stand-alone BESS, will be distributed through an on-site step-up substation, with a new 115 kV line to an existing electrical substation identified as Jobos TC, which is owned and operated by PREPA, approximately 0.45 mile east of the site for the Jobos Project.

Figure 2. Jobos Site Area Description

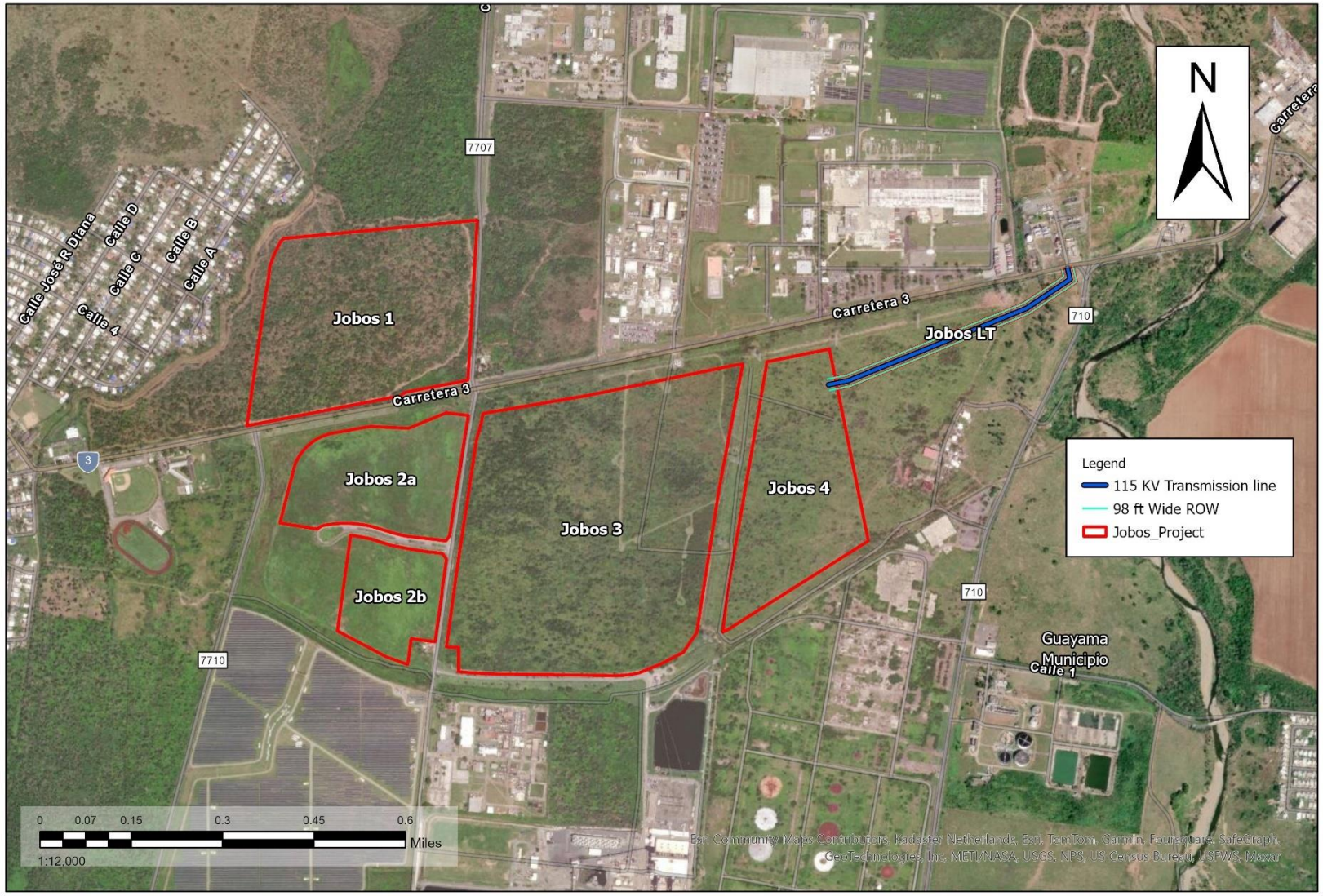
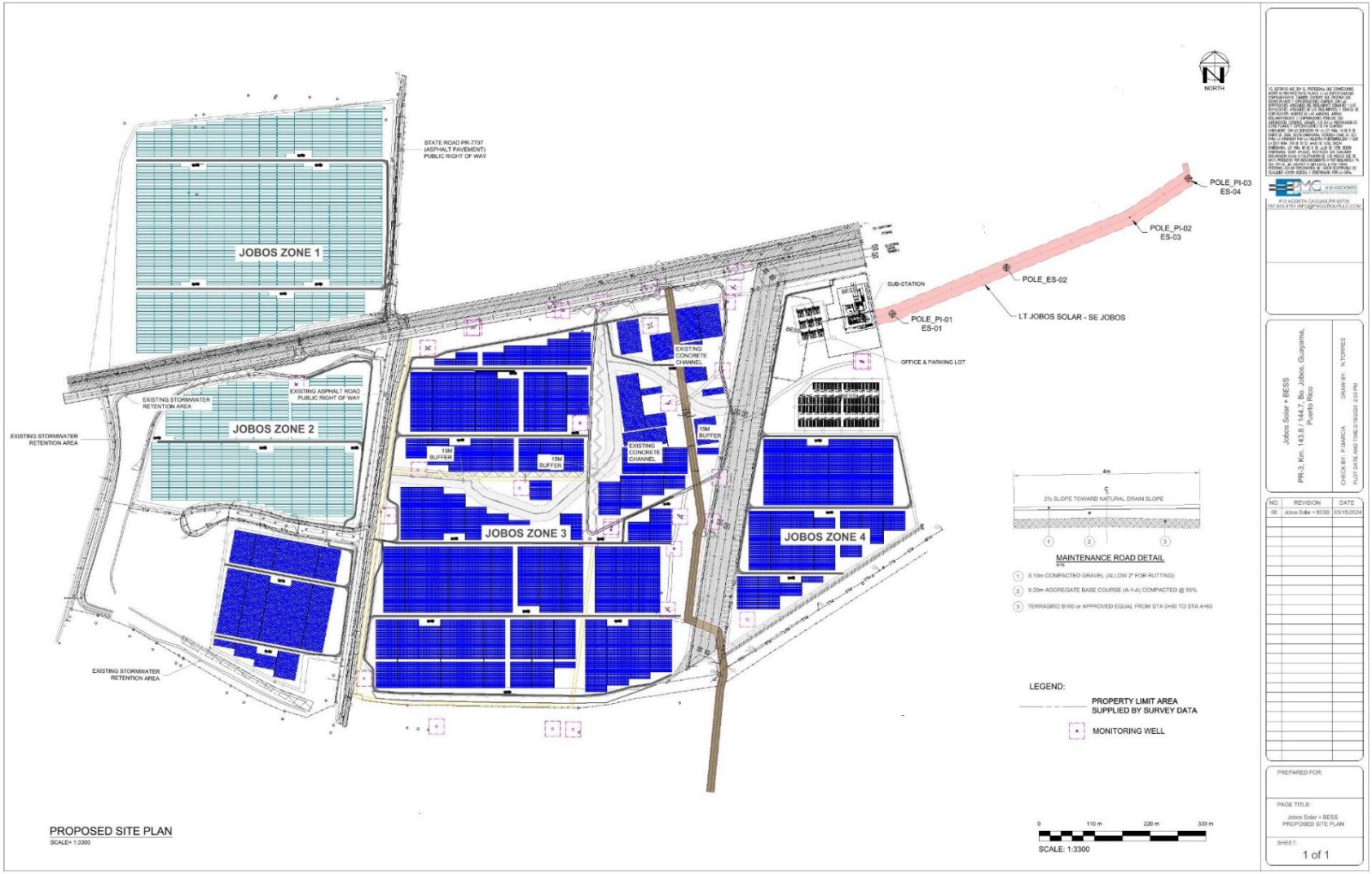


Figure 3. Jobos Project (Solar + BESS) Site Plan



Salinas Project

The 120 MW Salinas Project will be located in southeastern Puerto Rico in the Salinas and Guayama municipalities, approximately 50 miles south of San Juan. The PV facility will be on PR-706 in the Aguirre Ward, within the municipalities of Salinas and Guayama (coordinates 17.980444, -66.210598). BESS storage capacity will total 175 MW.

All energy generated by the solar plant and the stand-alone BESS, collectively referred to as the Salinas Project, will be distributed through an on-site step-up substation with two power transformers (one 100/125/165 MVA transformer and one 75/100/130 MVA transformer) and a new 115 kV power line. The point of interconnection (POI) will be at the existing electrical substation identified as Ciro One, which is owned and operated by the Ciro Group, LLC (coordinates 17.991651, -66.228928) and approximately 2 miles northwest of the site for the Salinas Project.

Agriart, LLC, owns approximately 1,844 acres in the Aguirre Ward of Salinas and Jobos Ward of Guayama between PR-53 (to the north), PR-3 (to the south), PR-713 (to the east), and PR-706 (to the west). CFE will lease 525 acres from Agriart, LLC (Figure 4). See Figure 5 for a detailed site layout plan for the Salinas Project. A 19.42-acre easement is also included for construction of a 3-mile interconnection line to the existing POI on nearby land owned by Ciro Group, LLC.

2.1 Construction

Construction of the Jobos and Salinas projects is planned to occur between July 2024 and December 2025, with work generally occurring between 7:00 a.m. and 5:00 p.m. Monday through Saturday. The labor force will total 160 to 450. The construction phases are expected to be as follows:

- Clearing and Grading—Vegetation will be removed, then the sites will then be cleared, grubbed in graded areas (disc rolled in the solar fields). Dust suppressants will be applied as necessary.
- Parking and Laydown Areas—Within each project site, areas will be established for temporary and permanent parking as well as temporary construction laydown sites; off-site parking or laydown areas will not be required.
- Roads—Temporary access roads, typically, 20 feet wide and surfaced with gravel, will be developed, then, as needed, converted to permanent access and internal roads within the project sites.
- Solar Modules—The solar modules will be assembled and erected on-site.
- Supporting Facilities—With the solar modules in place, the remaining fieldwork will consist of constructing the operations and maintenance (O&M) building, wiring the step-up substations and related equipment, and installing smaller components.
- Testing and Commissioning—Subsystems will be tested as each is completed. Modules will be tested once all supporting subsystems are installed and tested.
- Site Stabilization—During construction, disturbed areas will be stabilized with the use of water and/or dust palliatives to minimize wind and water erosion as well as fugitive dust. Permanent roads will either be paved or covered with gravel.
- Demobilization—All temporary fabrication and construction facilities will be removed from the site once construction is complete.

Figure 4. Salinas Site Location Map

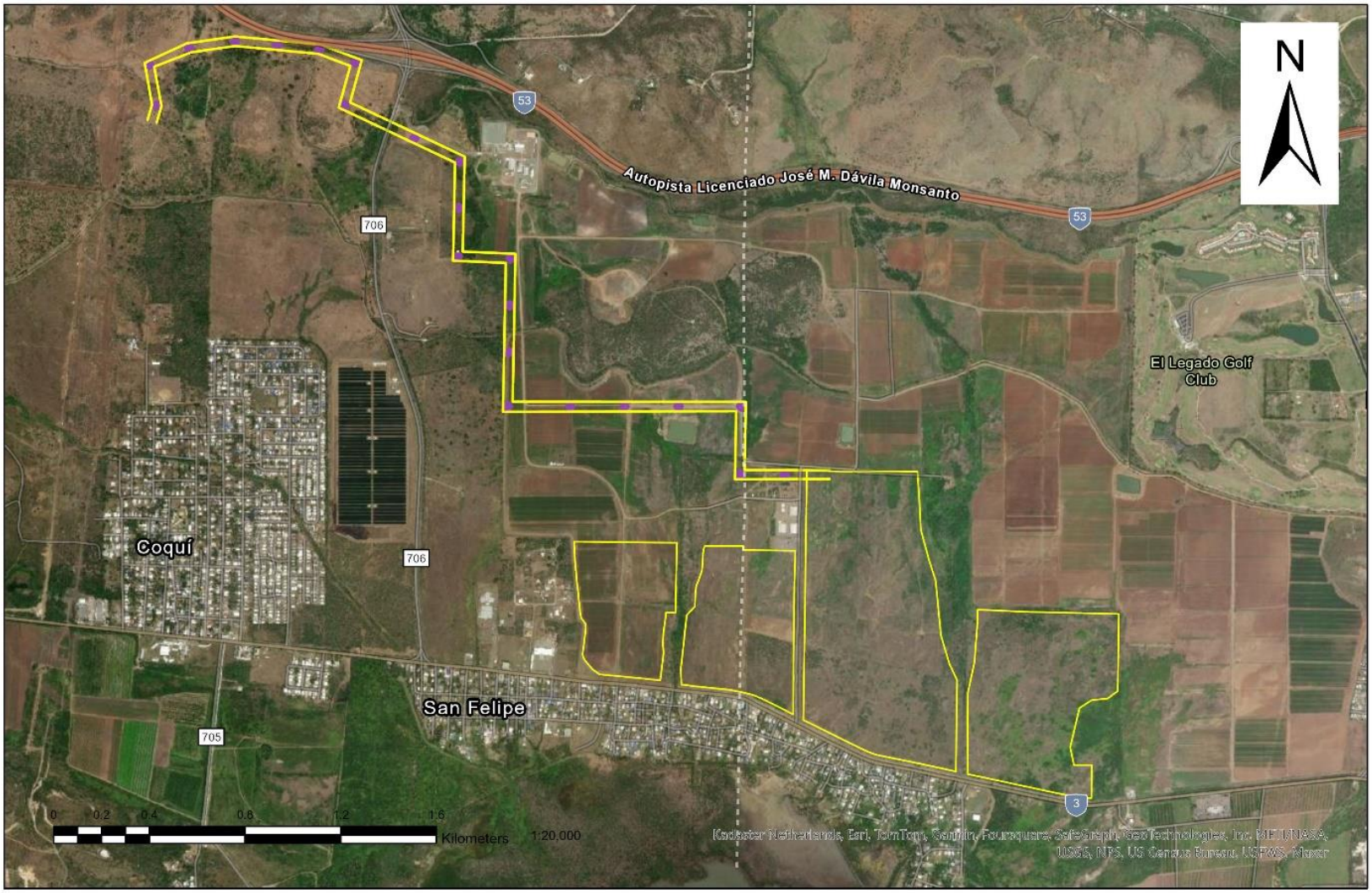
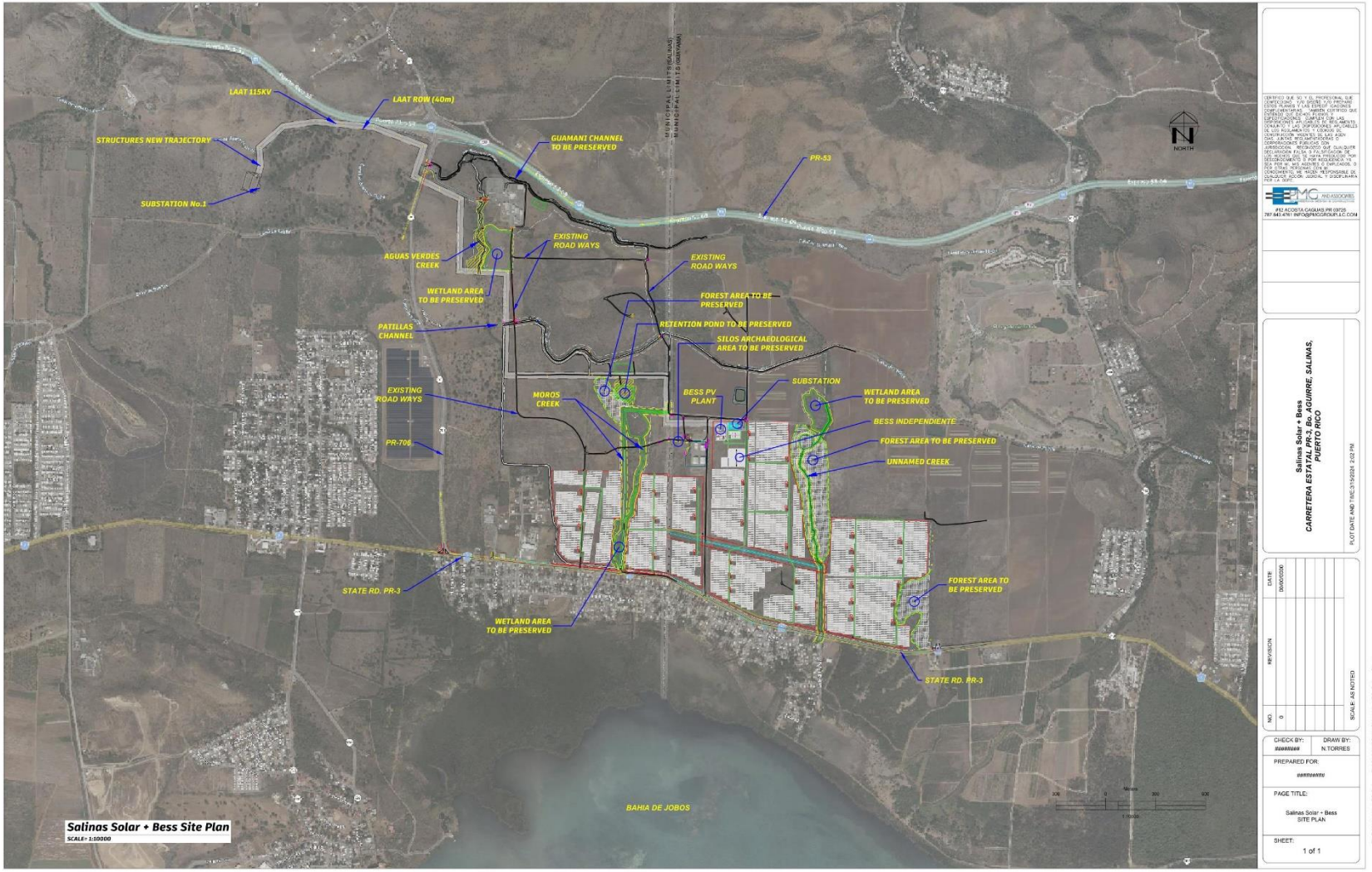


Figure 5. Salinas Project (Solar + BESS) Site Plan

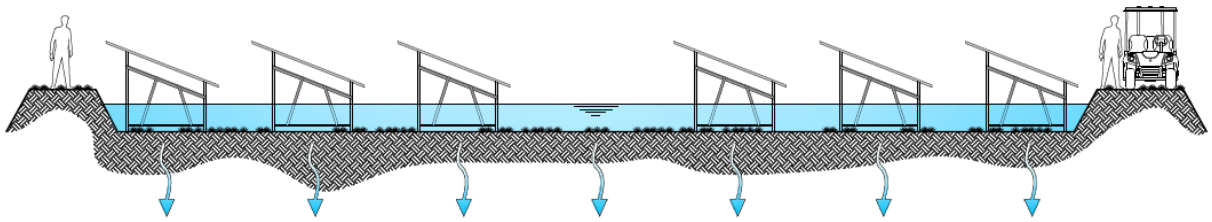


Construction materials, such as concrete, pipe, wire and cable, fuel, reinforcing steel, and small tools and consumables, will be delivered to the sites by truck. Initial grading work will require the use of excavators, graders, dump trucks, and end loaders, along with pickup and water trucks for added support. In addition, both the Jobos and Salinas sites will be secured with a galvanized steel cyclone fence topped with razor or helical concertina wire along the Project site perimeter. Access to the Project sites, where new project access roads meet existing public roads, will be designed with an adequate space for the ascent and descent of vehicles.

The drainage systems for both project sites will work by gravity, considering the topography and suitability of the terrain. The design of the drainage systems will comply with Regulation No.13 (PRPB 2021), Regulation No.40 (PRPB 2023a), and the Joint Regulation (PRPB 2023b) and follow the recommendations established in Guides for the Preparation of Hydrologic and Hydraulic Studies (Department of Natural and Environmental Resources [DRNA] 2016).

Local regulations require stormwater infrastructure to manage runoff from a 100-year storm event (PRPB 2023a and 2023b). The proposed stormwater system will have two types of systems: minor and major. A minor system relies on grass-lined ditches to handle a 50-year storm event (PRPB 2023a). A major system relies on natural waterways and detention/retention ponds, which work together with the minor system to handle a 100-year storm event (PRPB 2023a). Although the addition of solar panels on a grassy field will not affect the volume of runoff to any considerable degree, given the permeability of the soil, whenever a peak increase occurs (Cook-MacCuen 2013), mitigation is required to comply with local regulations (PRPB 2023b). The hydrologic study (Martinez 2022) recommends retention areas to mitigate any runoff-related peak increase. Specifically, shallow zones will be temporarily flooded during storm events, allowing continued operation of the PV panels above flood levels. The berms for the proposed service roads will determine the limits for the retention areas (see Figure 6).

Figure 6. Retention Areas between Service Roads



For both sites, drainage structures will consist of small grass-lined ditches to protect the panel areas as well as road berms from erosion. These structures will carry runoff from small storms and help convey it to the retention areas.

In summary, the stormwater infrastructure will ensure that water bodies and properties located downstream will receive runoff as under pre-development conditions. The volume, type of flow (laminar or concentrated), and maximum discharge (peak flow) will be as under existing conditions.

2.1.1 Solar Collection System and On-site Substation

- The solar panels (or PV panels) will be mounted on fixed steel support structures (see Figure 7) or 5B Maverick structures (see Figure 8). The assembled PV panels will have a typical height of about 6 feet (maximum height of 8 feet) and be arranged in rows with a center-to-center spacing of 12 to 22 feet. The rows will be aligned east to west; the PV panels will be tilted to the south. PV systems will

use design standards to withstand 164 mile per hour winds, or Category 5 on the Saffir-Simpson Wind Scale.

Figure 7. Fixed Foundation Structure

Figure 8. 5B Maverick Modular Structure

The PV panels will be organized into electrical groups, or blocks. Each block will encompass approximately 8 acres and produce about 1 MW. The blocks will be connected to alternating-current inverters as well as associated switchgear and transformers; the electricity will be conveyed through underground circuits to a common 34.5 kV bus[1] within the on-site step-up substation. All electrical collection equipment will be pad mounted, with some equipment housed in individual cabinets.

For the Jobos and Salinas Projects, on-site step-up substations will step up the electrical voltage from the collector circuits (i.e., from 34.5 kV to 115 kV). The step-up substation sites, including switchyards, will cover approximately 10 acres and include electrical switching devices, transformers, and tubular steel support structures up to 40 feet high to support equipment within the substations, along with a prefabricated modular control building. The on-site substations will be surrounded by a perimeter fence.

2.1.2 Transmission (Gen-Tie) Power Lines

The Jobos site's transmission gen-tie line (115 kV) connects the on-site substation to the existing Jobos TC substation located approximately 1,000 meters to the east. The interconnection line will require a 98-foot-wide easement and occupy approximately 3.5 acres, which will be leased from the Puerto Rico Land Authority (see Figure 9).

The Salinas site's transmission gen-tie line will connect the on-site substation to the existing Ciro One electrical substation, approximately 4,717 meters to the northwest. The line is on Agriart, LLC, lands until it crosses PR-706; it then runs through Ciro Group, LLC, parcels. The interconnection line will require a 98-foot-wide easement and occupy approximately 10.83 acres within the 19.42 acres leased from Ciro Group, LLC (see Figure 10).

[1] An electrical connection between multiple electrical devices.

Figure 9. Jobos Transmission Line Trajectory

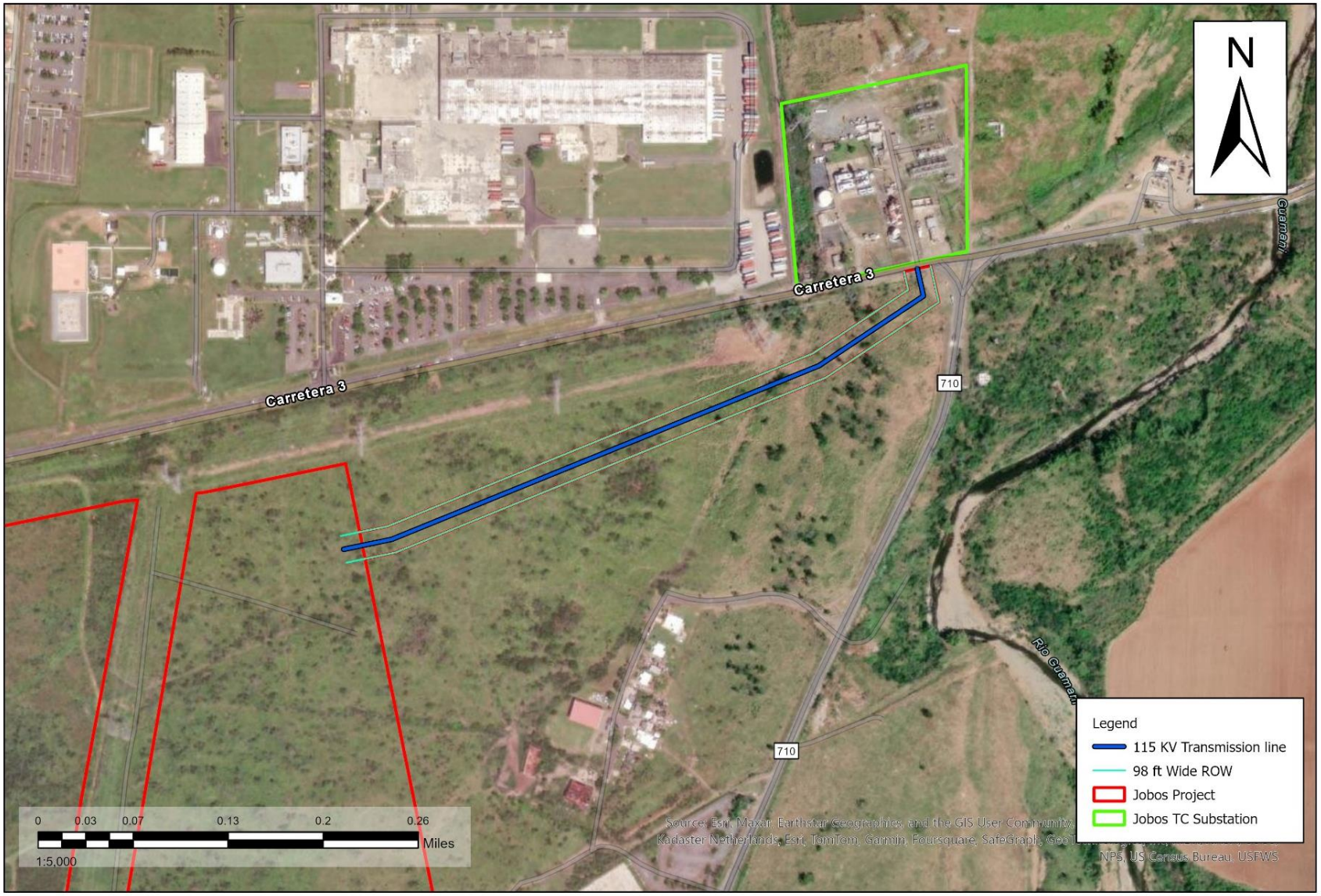
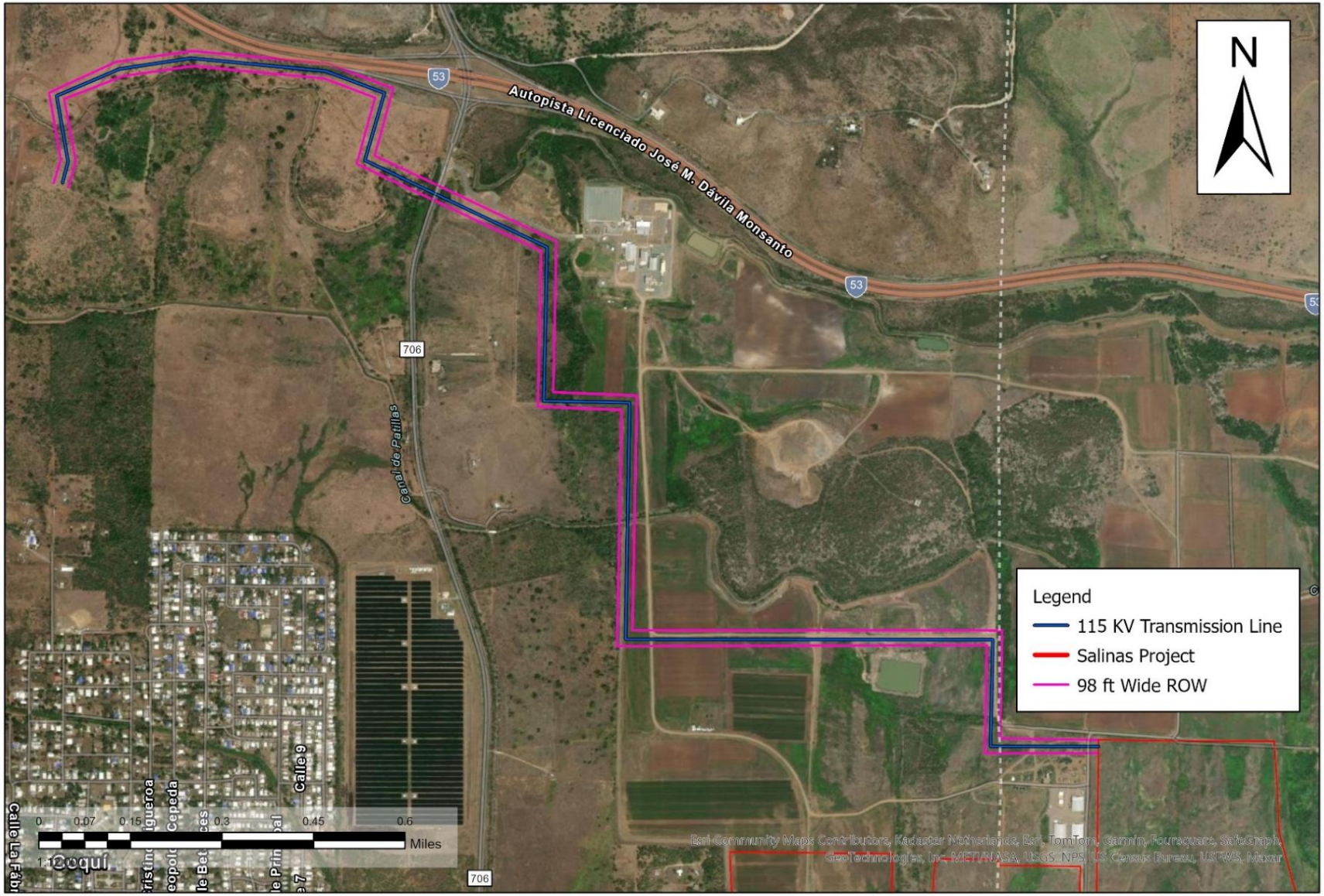


Figure 10. Salinas Transmission Line Trajectory



2.1.3 Project Schedule

The construction phase, encompassing all activities described in Section 2.1, for both sites is planned for July 2024 through December 2025. Site preparation, including clearing and grading, is scheduled to begin in the first quarter of 2025 (see Table 1 and Table 2).

Table 1. Jobos Project Schedule

#	Milestone	Condition	Temp OFF
1	Notice to proceed (NTP)	NTP	Q3 2024
2	Permitting for construction	Contractor permits required for construction to start	Q3 2024
3	Delivery of PV racking on-site (100%)	Monthly certification according to progress reports	Q4 2024
4	Delivery of equipment for high-voltage (HV) substation	Delivery of equipment for HV substation on the site	Q1 2025
5	Site preparation		Q1 2025
6	Field construction		Q2 2025
7	Mechanical equipment installation		Q2 2025
8	Construction completed		Q3 2025
9	Fully operational (commercial operation)		Q4 2025

Table 2. Salinas Project Schedule

#	Milestone	Condition	Temp OFF
1	NTP	NTP	Q3 2024
2	Permitting for construction	Contractor permits required for construction to start	Q3 2024
3	Delivery of PV racking on-site (100%)	Monthly certification according to progress reports	Q4 2024
4	Delivery of equipment for HV substation	Delivery of equipment for HV substation on the site	Q1 2025
5	Site preparation		Q1 2025
6	Field construction		Q2 2025
7	Mechanical equipment installation		Q2-2025
8	Construction completed		Q3 2025
9	Fully operational (commercial operation)		Q4 2025
10	BESS extension installation finalized		Q1 2026
11	Commercial operation – BESS stand-alone extension		Q2 2026

2.2 Operation and Maintenance

The projects will have Supervisory Control and Data Acquisition (SCADA) systems in the O&M buildings, allowing remote monitoring and control of inverters and other components. The SCADA systems will be able to monitor system output and availability and run diagnostics on the equipment.

The projects will also have local power control systems (PCSs) that will monitor the solar fields and control other facility systems. The microprocessor-based PCS will provide control, monitoring, alarm, and data storage functions for plant systems and communicate with solar field SCADA systems.

Real-time operation systems will be provided to integrate the Jobos and Salinas facilities into the national interconnected energy system. These systems will be defined by LUMA Energy/PREPA in coordination with the commercial and operations department.

One meteorological station will be installed at the Jobos site and the Salinas site for every 10 MW of direct-current capacity to track solar insolation (i.e., radiation intensity), temperature, wind direction and speed, and other parameters. The height of a metrological station will be up to 30 feet above ground surface.

The projects will operate during daylight hours only, with each requiring eight full-time personnel for operation, including maintenance and security. The operations workforce will be present on-site 24 hours a day. Typically, operators will work 8-hour days. Plant management and administrative personnel will typically work 8-hour days Monday through Friday. However, weekends and night shifts may be required, depending on maintenance requirements. Security and some maintenance personnel will be on-site on a 24-hour basis. At times when non-routine maintenance or major repairs are in progress, the maintenance workforce may work longer hours. Contract labor may be brought in as necessary.

Long-term maintenance schedules will include periodic maintenance and equipment replacement in accordance with manufacturers' recommendations. PV panels are warrantied for a minimum of 25 years and expected to have a lifespan of 35 years or more, with electrical output degradation amounting to only 0.5 percent per year. No heavy equipment will be used during normal operation. O&M vehicles will include trucks, forklifts, and loaders for both routine and unscheduled maintenance. Water trucks will be used for washing the solar panels. In addition, heavy transport equipment may be brought to the project sites occasionally for repair or replacement.

The primary waste generated at the facility during operations will be non-hazardous solid waste. However, varying quantities of liquid non-hazardous waste as well as both solid and liquid hazardous waste will also be generated during maintenance activities. In addition, limited quantities of hazardous materials will be used and stored on-site for operational and maintenance activities. These include lubricants, solvents, janitorial supplies, office supplies, laboratory supplies, paint, degreasers, herbicides, pesticides, gasoline, hydraulic fluid, propane, and welding rods. Such materials will generally be used and stored in small quantities.

In addition to the materials that will be used during operations, certain other materials, such as air-conditioning fluids containing chlorofluorocarbons (CFCs), fire suppressants containing sulfur hexafluoride (SF_6), and PV panels containing cadmium telluride, will also be on-site; however, they will be encapsulated within products and equipment and not expected to be released to the environment under normal circumstances. Any hazardous materials used for the projects will be stored in the O&M buildings. Flammable materials, such as paints and solvents, will be stored in cabinets designed for flammable material with built-in containment sumps. Other materials will be stored on shelves, as appropriate. Given the small quantities involved, the controlled environment, and the concrete floor within the O&M building, spills will be cleaned up without significant environmental consequences.

BESS operations will be constantly monitored to observe changes in charging, discharging, temperature, voltage, and current. This will be accomplished with the use of SCADA systems to collect data from the system's sensors. The BESS will be operated to maximize the system's performance and lifetime. This involves optimizing battery charging and discharging, based on energy demand, available renewable generation, and electricity market prices. Control systems will ensure that the BESS operates safely and

efficiently. This requires managing the charging and discharging of the batteries, protecting against overcharging and over-discharging, and shutting down the systems in the event of an emergency.

Regular inspections will be performed to verify the physical condition of the BESS, including the batteries, inverters, cables, and safety systems. Tests will verify system performance, including charging and discharging capacity, efficiency, and response time. Preventive maintenance will be performed to prevent BESS failures. This will include component cleaning, sensor calibration, and software upgrades.

At the end of the projects' useful life, approximately 25 years after construction is completed, the project would be decommissioned in accordance with the Applicant's decommissioning plan.

2.2.1 Inspections and Maintenance Measures

Good housekeeping practices are designed to maintain a clean and orderly work environment. Such practices will be in place throughout the construction and operational phases of the projects and implemented to manage materials on-site; control any possible exposure to harmful substances, including harmful substances in stormwater runoff; as well as respond to any inadvertent releases.

Erosion and sediment control practices as well as pollution prevention measures will be inspected daily to verify that they are being maintained in an effective operating condition. If deficiencies are identified, corrective actions will be implemented and completed within 1 business day.

CFE will have a qualified inspector conduct site inspections to verify the stability and effectiveness of the protective measures and practices employed during construction. The site inspections will be conducted at least once every 7 days. Inspection reports will identify and document maintenance of the erosion and sediment control measures. If deficiencies are identified, the contractor will begin implementing corrective actions within 1 business day, with corrective actions completed by the end of the day.

2.2.2 Waste Disposal

Waste from decommissioning will be removed from the site and separated for recycling whenever possible according to established protocols for storage, transport, and disposal under applicable local and federal regulations. The collected waste will be stored in individual containers and transported to landfills certified by the Department of Natural and Environmental Resources (DRNA). Solid waste that can be recycled will be stored separately in containers to facilitate collection, separation, and transport to collection centers. Waste will be disposed of in accordance with applicable DRNA and EPA regulations.

3.0 ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

In each of the following sections, a specific resource area is addressed using both qualitative and, where applicable, quantitative information to concisely describe the nature and characteristics of the resource that may be affected by the projects as well as the potential direct and indirect impacts on that resource as a result of the projects. Because of the 4-mile separation between the projects, resource-specific impacts are presented for each project site. A conclusion regarding the significance of the impacts is provided for each resource area.

Section 3.11 provides a review of the present and reasonably foreseeable federal and nonfederal actions that may contribute to a cumulative impact when added to the impacts of the projects. The impacts of past actions were reviewed and included as part of the affected environment to establish the current condition (i.e., the baseline condition) of the resource that may be affected by the projects.

3.2 Cultural Resources

3.2.1 Jobos Project

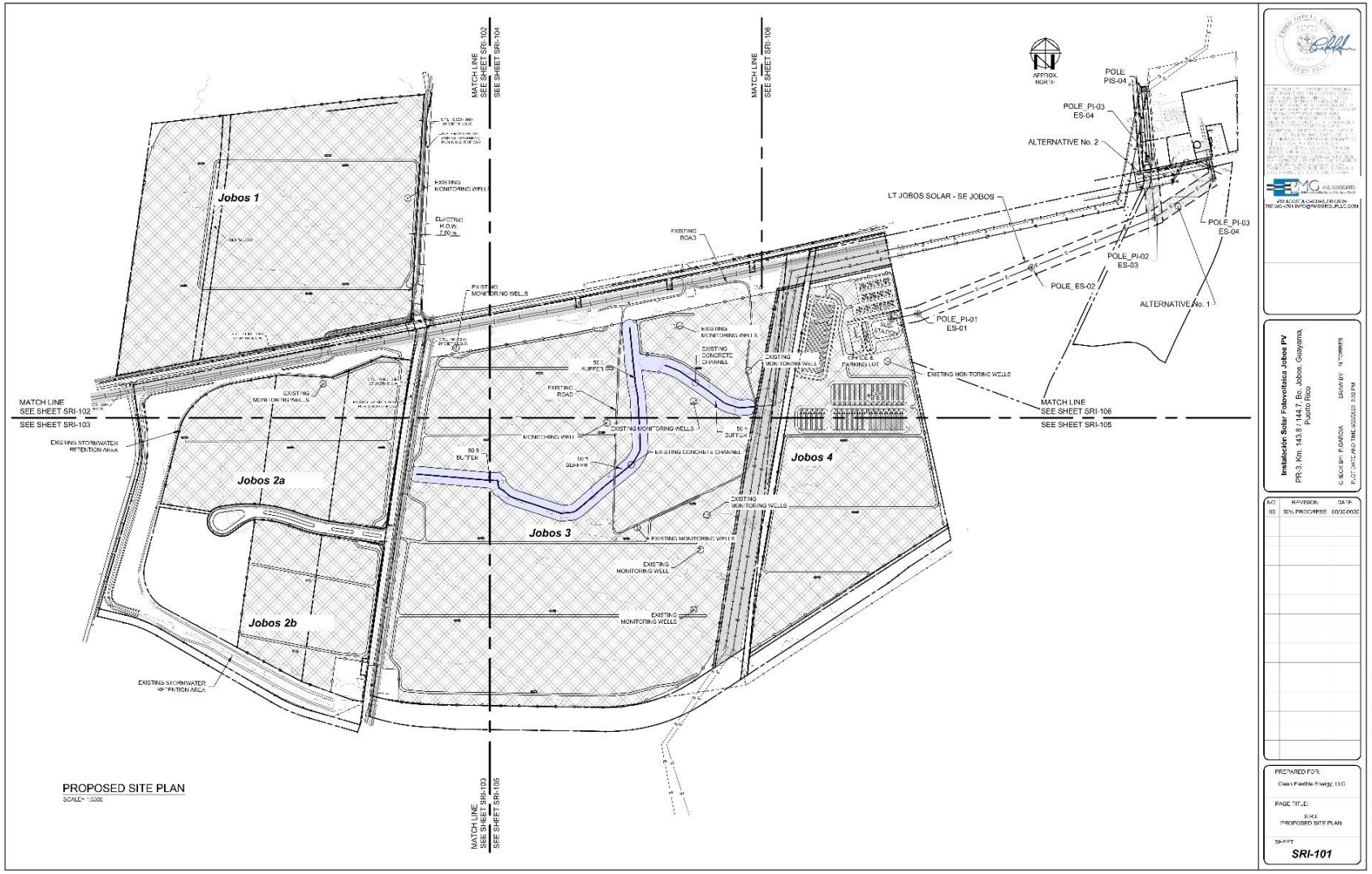
A cultural resources investigation was conducted at the Project site, consisting of the 318-acre PV site and the 5.6 acres for the transmission line, for a total of 323.6 acres (Alvarado 2022). This included a pedestrian reconnaissance survey to identify any pre-Hispanic and/or historical surface vestiges as well as a systematic subsurface investigation (shovel testing) to determine whether there was evidence of any cultural vestiges on the property. The investigation also consisted of background environmental research, a review of previously recorded cultural resources, and a review of previous cultural resource investigations.

The Phase I survey identified a concrete irrigation channel within the area of potential effects (APE) that was determined to be potentially eligible for listing in the National Register of Historic Places (NRHP). In response, the Project design would avoid the irrigation channel and incorporate a 50-foot buffer zone around it (see Figure 11). The ICP authorized the proposed solar project in letters dated October 18, 2022, and May 8, 2023 (Appendix A), indicating that the probability of the Project affecting historical and/or archaeological resources was low. On January 11, 2024, the SHPO concurred with DOE's determination that no historic properties would be adversely affected (Appendix A).

Should historic properties be discovered during Project construction, work would cease in the vicinity of the discovery, and DOE, SHPO, and state agencies would be notified immediately. The discovery would be evaluated in consultation with the SHPO, and appropriate measures would be implemented before construction activities would resume in the vicinity of the discovery. Construction activities would be in compliance with State Law 112, which requires excavations, including any movement or removal of the terrain, to cease immediately and the Archaeological Program of the ICP to be notified within 24 hours of impact or the discovery of an element, deposit, structure, or vestige of an archaeological nature.

Because the Project design would avoid the concrete irrigation channel, and because no other potentially historic properties were identified in the Project area, with the controls that are in place for an unanticipated discovery, the Project would have no adverse impacts on cultural resources. Consequently, Project-related impacts on cultural resources would not be significant.

Figure 11. Irrigation Canal and 50-Foot Buffer Zone



3.2.2 Salinas Project

A cultural resources investigation was conducted within a 980-acre property that encompassed the 525-acre Project site (Schlaffer 2022). The study identified the Guamani and Patillas irrigation channels in the Project area and four silos that were historically used as part of cattle grazing operations during the 1950s and 1960s. The study concluded that the Project design would not affect the channels, which are currently in operation and under PREPA jurisdiction, nor would it affect the silos, which are outside the Project area (see Figure 12). The investigation found that the irrigation channels are potentially eligible for listing in the NRHP. The irrigation channels are within PREPA easements but outside the area for direct physical effects. The ICP authorized the Salinas Project in a letter dated September 26, 2022 (Appendix A), indicating that the probability of the Project affecting historical and/or archaeological resources was low. It also authorized installation of the interconnection line in a communication dated October 6, 2023 (Appendix A).

The 2022 Phase I investigation concluded that that Project would have no adverse impacts, visual or otherwise, on cultural resources. On January 11, 2024, the SHPO concurred with DOE's determination that there would be no adverse effects on historic properties (Appendix A).

Should historic properties be discovered during Project implementation, work would cease in the vicinity of the discovery, and DOE, SHPO, and state agencies would be notified immediately. The discovery would be evaluated in consultation with the SHPO, and appropriate measures would be implemented before construction activities resume.

Because the Project design would avoid potential historic properties, and because historic resources would be left intact and completely avoided, Project effects would not be significant. Given the absence of adverse impacts on cultural resources within and surrounding the Project site, along with the controls that are in place for an unanticipated discovery of such resources, the Project would have no adverse impacts on cultural resources. Consequently, Project-related impacts on cultural resources would not be significant.

3.3 Water Resources

3.3.1 Wetlands

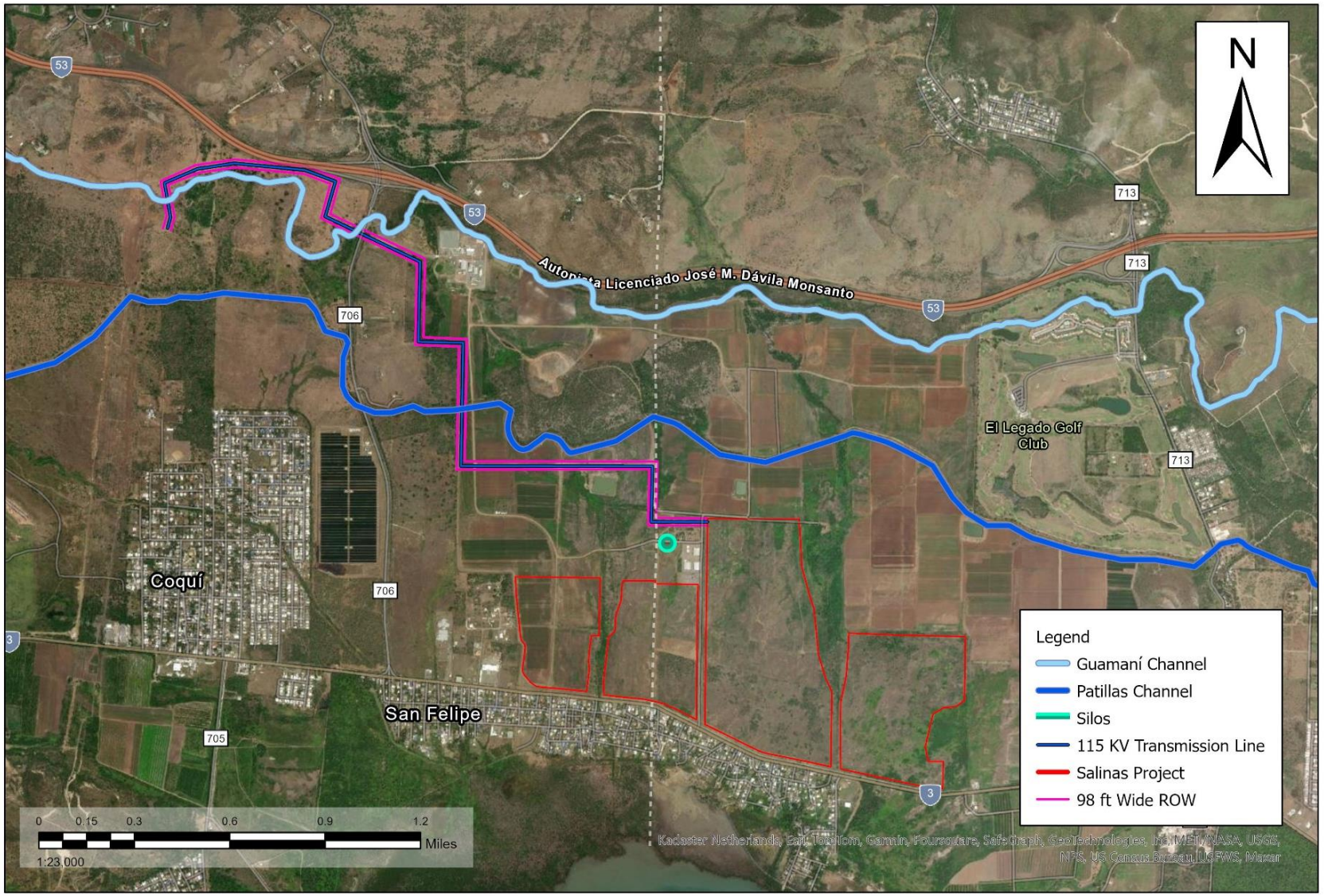
3.3.1.1 Jobos Project

A field assessment of potential wetlands and water bodies was conducted for the Project site, and no wetlands or jurisdictional areas were found (Ambienta 2020). No wetland indicators, no ordinary high-water mark, and no connection to jurisdictional surface waters was observed or found in the Project area. The field assessment noted that an ephemeral creek, once present in the Project area, had been modified from its original condition and contained in a concrete channel. Despite its classification as a riverine wetland, the field assessment concluded (Ambienta 2020) that the ephemeral stream does not exhibit wetland criteria within the Project area, most likely due to site modifications and channelization.

A CES Plan would be developed and implemented during construction to minimize potential impacts on Off-site wetlands as well as occurrences of erosion and sedimentation. The controls that would be implemented to minimize impacts include installing a silt fence around the perimeter of the area that would be disturbed. In addition, a SWPPP would be prepared in accordance with EPA regulations (40 CFR Part 122.26).

Wetlands were not found on the property during the wetland delineation; therefore, the Project would not have a significant impact on wetlands.

Figure 12. Silos and Guamani and Patillas Irrigation Channels



3.3.1.2 Salinas Project

Wetland Jurisdictional Determination and Delineation Studies were conducted for the Project site (Ambienta 2021) to accurately map wetland areas and aquatic resources. The studies identified 11 acres of jurisdictional wetlands within the Project site, as follows (see Figure 13):

- Wetland area associated with Quebrada Aguas Verdes (an intermittent stream):
- Located at the northwestern corner of the study area and east of the stream, which traverses the study area from north to south and eventually flows into a mangrove system associated with Jobos Bay.
- Wetland area associated with Quebrada Amorós (an intermittent stream):
- Located at the center of the study area and east of stream, which traverses the study area from north to south and eventually flows into a mangrove system associated with Jobos Bay.
- Wetland area associated with an unnamed ephemeral creek:
- Located at the northeastern corner of the study area and west of the unnamed creek, which crosses the study area from north to south until it dissipates within adjacent lots.

During the wetland assessment (Ambienta 2021), all three wetland sites exhibited very dry conditions due to the coinciding dry season. Wetland hydrology criteria were met by two secondary indicators: surface soil cracks (Indicator B6) and the FAC-neutral test (Indicator D5). These observations indicate the presence of wetland characteristics, despite the dry conditions observed during the assessment.

All portions of the lands delineated as streams and wetlands were excluded from Project development areas (see Figure 13). Project activities would not occur within those areas to avoid impacts, as recommended by DRNA. The DRNA endorsed the plans with avoidance areas in communications dated April 6, 2023 (Appendix A).

A Control of Erosion and Prevention of Sedimentation Plan (CES Plan) would be developed and implemented during construction to minimize potential impacts on off-site wetlands as well as occurrences of erosion and sedimentation. In addition, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared, as required by the EPA guidelines. The controls that would be implemented to minimize impacts include, but are not limited to, establishing a 33-foot buffer zone around all water bodies and wetlands and installing a silt fence around the perimeter of the area that would be disturbed.

Because wetland areas would be avoided, and controls would be implemented during construction, including a CES Plan and SWPPP, impacts on wetlands from the Project would not be significant.

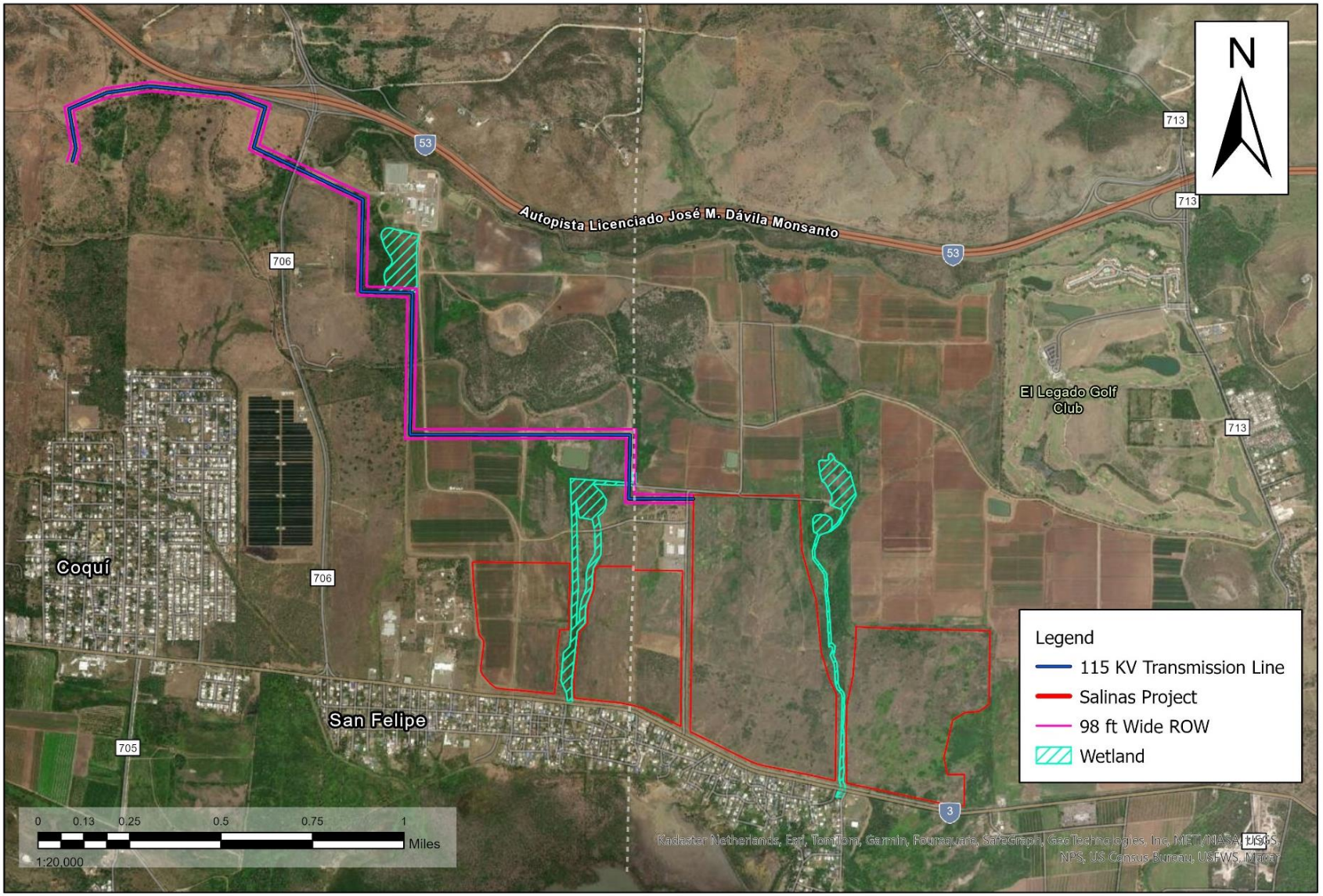
3.3.2 Surface Water

3.3.2.1 Jobos Project

The hydrology of the Project site is characterized by stormwater runoff that flows through an open drainage system and follows the natural topography, primarily from the northern part of the property to the south-southwest (Garcia 2021), as well as a concrete channel in the western portion of the Project site. In addition, Melania Creek is west of the Project site and the Guamani River is east of the Project site, approximately 50 and 210 meters away, respectively.

A CES Plan would be developed and implemented during construction to minimize potential impacts on Off-site wetlands as well as occurrences of erosion and sedimentation. The controls that would be implemented to minimize impacts include installing a silt fence around the perimeter of the area that would be disturbed. In addition, a SWPPP would be prepared in accordance with EPA regulations (40 CFR Part 122.26).

Figure 13. Wetland Areas Identified in the Salinas Project Area



With implementation of the CES Plan, as well as the SWPPP, no significant impacts on surface water are expected during construction or operation.

3.3.2.2 Salinas Project

The existing topography on the Project site and in surrounding areas follows a drainage pattern that runs to the south (Martinez 2022). The hydrology of the Project site is characterized by stormwater runoff. According to the U.S. Geological Survey (USGS) topographic quadrangle map, the following hydrographic systems are within the Project area: Quebrada Aguas Verdes, which crosses the northwest end of the Project area; Quebrada Amorós, which crosses the center of the Project area; and an ephemeral creek without a name that crosses the central/eastern portion of the Project area. All three hydrographic systems move in a north–south direction until discharging into Jobos Bay (see Figure 14). Project development would avoid these regions, which have been specifically excluded from the Project area. The site's transmission line would cross above the Guamani and Patillas irrigation canals; therefore, impacts are not expected as a result of the Project (see Project site plan in Figure 5).

An CES Plan would be developed and implemented during construction to minimize potential impacts on water resources as well as occurrences of erosion and sedimentation. The controls that would be implemented to minimize impacts include installing a silt fence around the perimeter of the area that would be disturbed. In addition, a SWPPP would be prepared in accordance with EPA regulations (40 CFR Part 122.26).

With implementation of the CES Plan, as well as the SWPPP, no significant impacts on surface water are expected during construction or operation.

3.3.3 Floodplains

3.3.3.1 Jobos Project

Following Hurricane Maria, FEMA published the Puerto Rico Advisory Base Flood Elevations Maps (ABFE maps). According to the ABFE maps, most of the Project area is outside the flood zone (i.e., within Zone X), with the exception of the areas shown in Figure 15. About 70.4 acres on the Jobos site, or about 22 percent of the Project area, is in an area with an annual 1 percent flooding probability; 29.2 acres, or about 9 percent of the Project area, is in a zone with an annual 0.2 percent flooding probability. Planning Regulation No. 13 of the PRPB allows development in such areas (PRPB 2021).

In accordance with 10 CFR 1022, Compliance with Floodplain and Wetland Review Requirements, and Executive Order 11988, Floodplain Management, this EA provides a statement of findings, as required in Section 1022.14. A project description and information regarding the location are provided in Chapters 1 and 2 of this EA, along with the alternatives DOE is considering in deciding whether to fund the loan guarantee. The action conforms to all applicable floodplain protection standards, as required by the permitting authorities in Puerto Rico. The Project would not modify elevations within the Project area. In addition, the Project would maintain the permeability of the soils under and around the PV installation; therefore, continued infiltration of precipitation and floodwaters into the soils is expected, with no change in runoff patterns. Figure 7 shows the typical footprint of a structure with a fixed foundation as well as surrounding permeable surfaces. The maximum depth of water in areas that would be subject to 100-year flooding within the Project site is expected to be approximately 4.0 feet. PV panels would be installed above the 100-year water level, in compliance with the applicable provisions of Planning Regulation No. 13 (PRPB 2021). Because of design considerations and permitting reviews, no significant impacts related to flood levels or floodplains are expected as a result of the Jobos Project.

Figure 14. Water Bodies in the Salinas Project Area

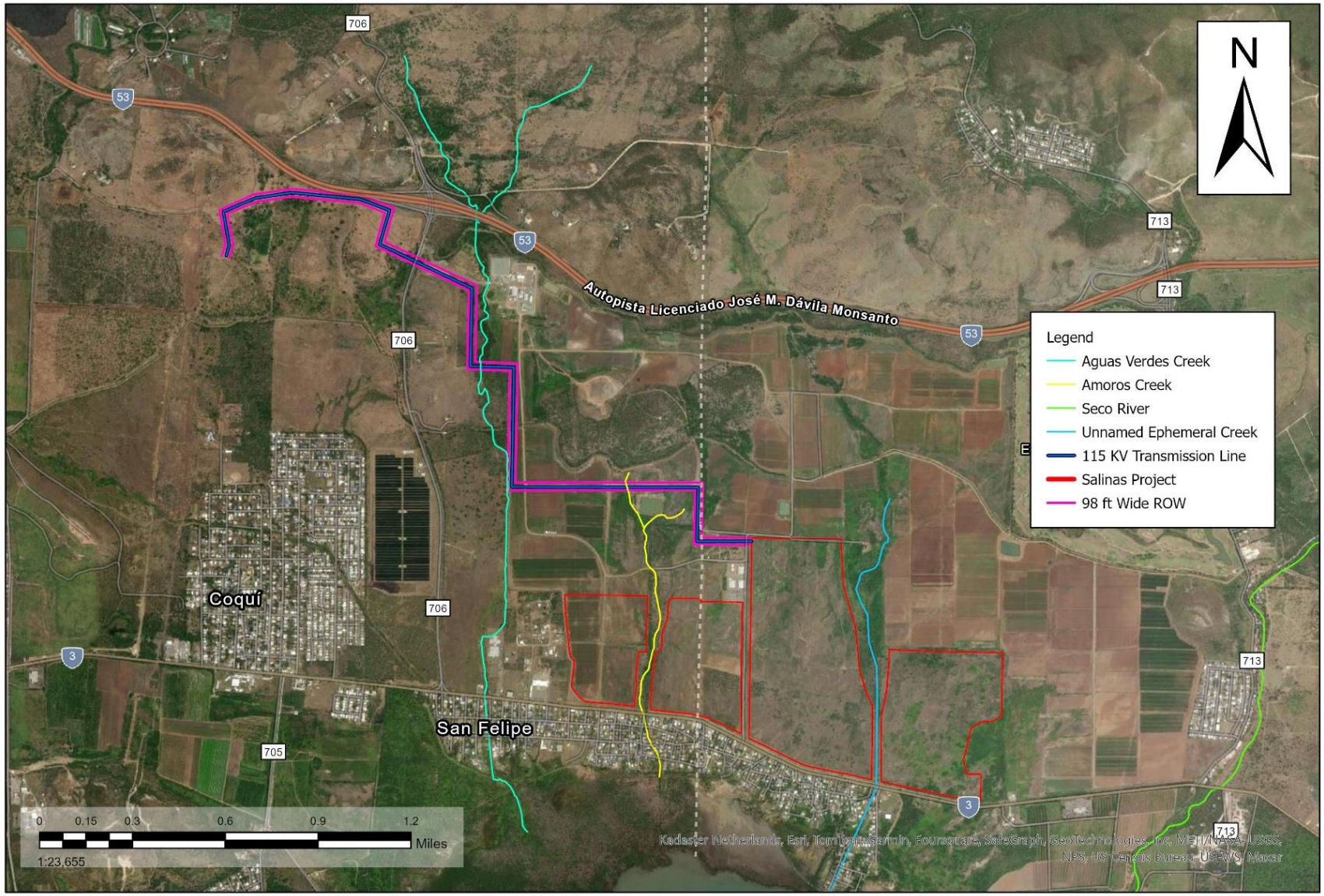
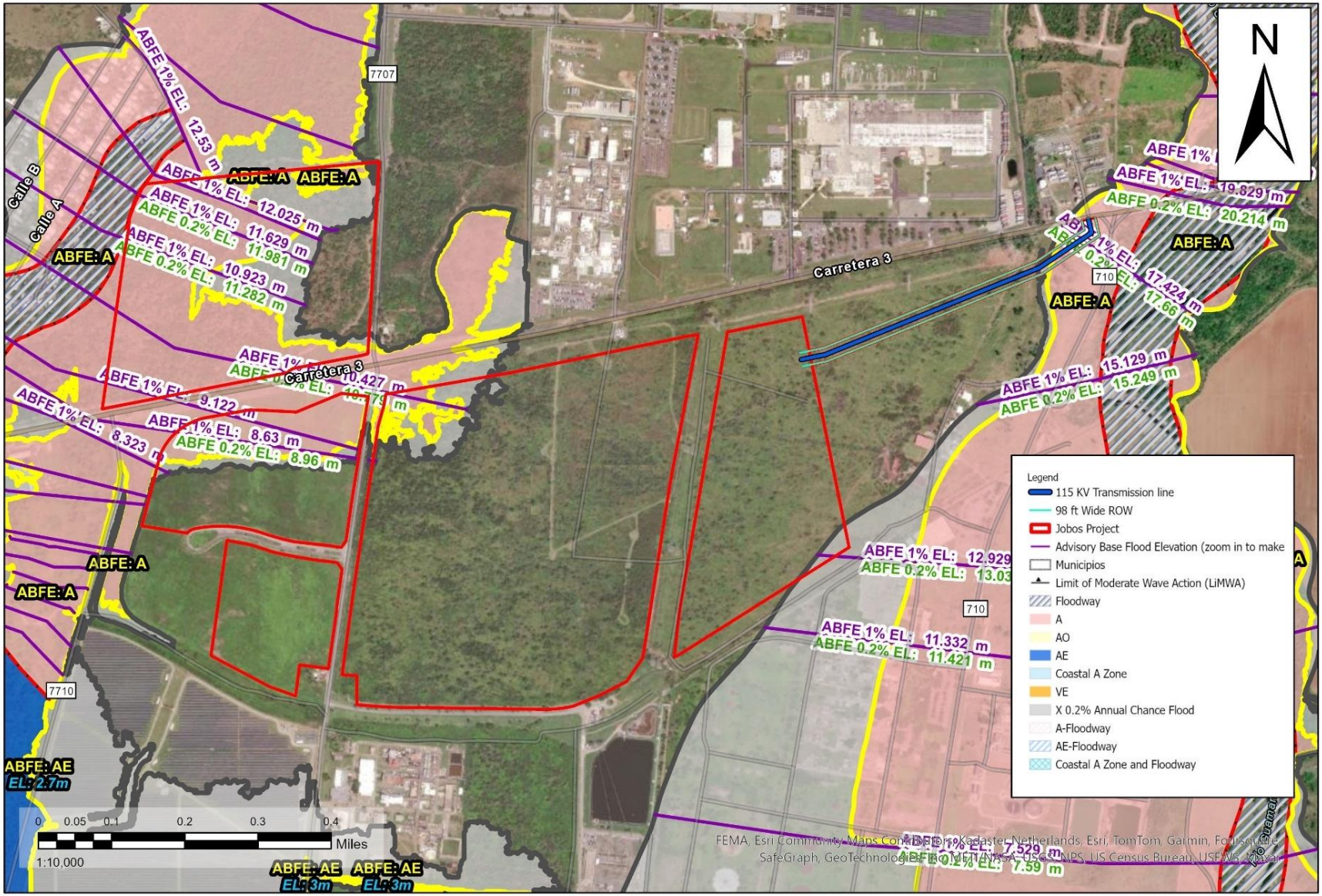


Figure 15. ABFE Map for Jobos Project Area



3.3.3.2 Salinas Project

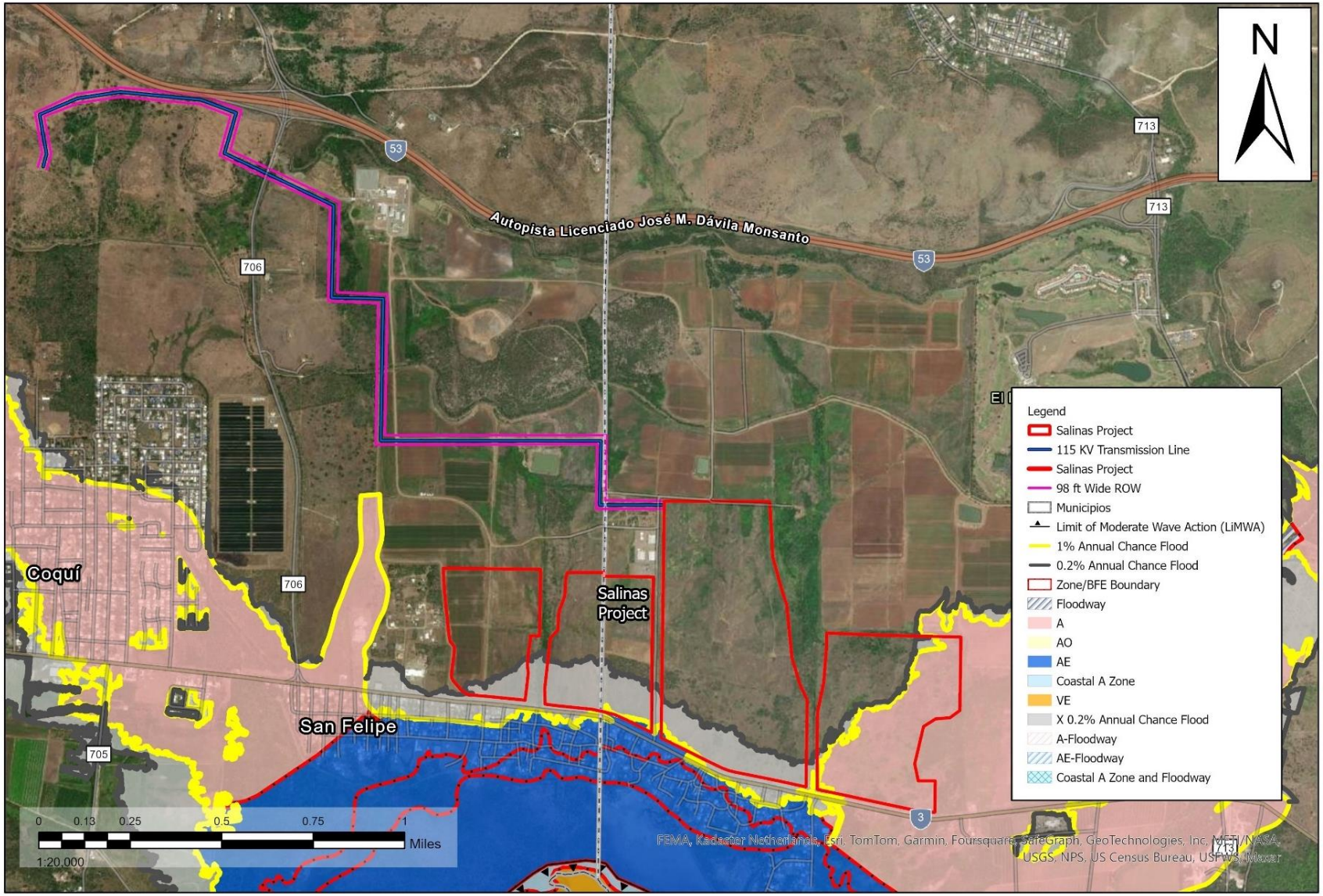
According to the ABFE maps, most of the Project area is outside the flood zone (i.e., within Zone X), with the exception of two areas southeast and southwest of the Project area with an annual 1 percent chance of flooding and an area to the south with an annual 0.2 percent chance of flooding (see Figure 16).

The total area within Zone A, according to ABFE maps, is approximately 63 acres, or about 12 percent of the Project area. According to FEMA's hydraulic model, the affected area is designated as an "ineffective flow area." Therefore, with water at an average depth of 3.28 feet, the area would not have the capacity needed for hauling materials to the Seco River.

In accordance with 10 CFR 1022, Compliance with Floodplain and Wetland Review Requirements, and Executive Order 11988, Floodplain Management, this EA provides a statement of findings, as required in Section 1022.14. A project description and information regarding the location are provided in Chapters 1 and 2 of this EA, along with the alternatives DOE is considering in deciding whether to fund the loan guarantee. The action conforms to all applicable floodplain protection standards, as required by the permitting authorities in Puerto Rico.

Approximately 63 acres of the Salinas Project would be developed within a floodplain. However, the Project would not modify elevations in the Project area. Furthermore, the Project would maintain the permeability of the soils under and around the PV installation; therefore, continued infiltration of precipitation and floodwaters into the soils is expected, with no change in runoff patterns. Also, structures would be installed above the established water level, in compliance with applicable provisions of Planning Regulation No. 13 (PRPB 2021). Because of design considerations and permitting reviews, no significant impacts related to flood levels or floodplains are expected as a result of the Salinas Project.

Figure 16. ABFE Map for Salinas Project Area



3.4 Noise

3.4.1 Jobos Project

The Project site is zoned for industrial development; a substantial amount of industrial development is already present in the surrounding area. The general vicinity of the Project site is characterized by industrial and public uses, with limited residential uses. Neighboring properties are host to pharmaceutical manufacturers to the north and the AES carbon-based power plant, Illumina solar power plant, and former Chevron facilities to the south. Approximately 25 residential units, a school, and a running track can be found to the west; vacant land can be found to the east. The closest residential unit is approximately 250 feet from Jobos 1, the school is approximately 850 feet from Jobos 2a, and the running track is approximately 1,500 feet from Jobos 2b. Existing sources of noise at the site include vehicular traffic.

State regulations for noise pollution control require emissions sources to comply with regulatory limits, as measured beyond the property limits in receptor zones. The receptors zones are shown in Table 3. The Project site and the surrounding areas to the north, south, and east within 2,000 to 3,000 feet are classified as Zone III (Industrial). The regulatory noise limits for each receptor zone and types of emissions sources, as defined by Environmental Quality Board (EQB) noise pollution control regulations, are presented in Table 4.

Table 3. Noise Emission Limits (dBA)

	Receptors Zones							
	ZONE I (Residential)		ZONE II (Commercial)		ZONE III (Industrial)		ZONE IV (Quiet Zone)	
Emission Source	D	N	D	N	D	N	D	N
Zone I (Residential)	60	50	65	55	70	60	55	50
Zone II (Commercial)	65	50	70	60	75	65	55	50
Zone III (Industrial)	65	50	70	65	75	75	55	50
Zone IV (Quiet)	65	50	70	65	75	75	55	50

Notes: dBA = A-weighted decibels; D = diurnal period; N = nocturnal period

The Project would generate temporary noise during construction from heavy machinery such as bulldozers, graders, excavators, dump trucks, and cement trucks, along with tools such as jack hammers and nail guns. Maximum noise levels range from 85 to 95 A-weighted decibels (dBA); this compares to the noise level generated by a diesel truck during acceleration, as measured at 509 feet. The noise produced at a specific location would vary, depending on factors such as the construction phase, construction methods, and the amount and type of equipment used. In addition, the noise produced by specific equipment can vary considerably during different phases and work cycles. Table 4 shows the noise emission levels for the common types of construction equipment that may be used at the site during proposed construction activities, as measured at a distance of 50 feet.

Table 4. Noise Emission Levels for Construction Equipment (dBA)

Equipment	Noise Levels
Scraper	89–95
Bulldozer	77–87
Bulldozer, caterpillar	90–93
Wheel loader	80–81
Loader (“terex”)	96

Equipment	Noise Levels
Excavator	79–85
Concrete pump truck	91
14-wheel truck	88
Compressor	71–97
Rock drill (manual, pneumatic)	88
Taladro (crawler)	91
Water pump tank	79
Generator	76
Grader	87–89
Motor grader	71–87
Crane	80–85
Gradall	87–88
Concrete pump	69–75

Construction activities could increase existing background noise levels in areas surrounding the Project site. However, receptor zones within Project limits are classified mainly as Zone III (Industrial). Areas classified as Residential and Quiet Zones are located west of the Project. The nearest residential area to the Project site is approximately 328 feet from the Jobos 1 property limit and separated by vegetated areas surrounding Melania Creek. According to the Federal Highway Administration's Traffic Noise Model, the noise level at 328 feet can reach 80 decibels (dB) (maximum). However, because Jobos 1 is separated from the residential area by dense vegetation, the noise level could be reduced by 10 to 15 dB (Ghosh 2017).

The maximum noise level within the residential area could reach 65 to 70 dB. However, this construction-related noise level at Jobos 1 would be temporary. As construction moves to other areas on the Project site, noise levels would decrease; therefore, it is anticipated that the impact of noise during construction phase would be minimal. The nearest Quiet Zone is approximately 1,640 feet from the Jobos 2A property limit and separated by a municipal street and vegetated areas. The noise level at 1,640 feet could reach 50 to 55 dBA, which is within the established limit for the Quiet Zone. Therefore, it is anticipated that the impact of noise during construction would be minimal.

Noise levels during construction would be considered typical and would be temporary. The Project would manage noise with best management practices (BMPs), such as limiting outdoor construction activities to daylight working hours between approximately 7:00 a.m. and 6:00 p.m. Monday through Friday and between 8:00 a.m. and 1:00 p.m. on Saturdays, implementing a maintenance program for equipment to ensure proper functioning and reduced noise levels, and complying with local noise ordinances. Also, construction at Jobos 2a could be initiated during summer months when school is not in session.

The main sources of noise during Project operation would be the stationary equipment used during the day, such as transformers, inverters, array trackers, and the on-site step-up substation. According to the National Electrical Manufacturers Association, such equipment, when measured at 5 feet, generates sound levels of 58 dBA, 65 dBA, 61 dBA, and 71 dBA, respectively. The on-site step-up substation would be installed at Jobos 4, which is more than 1 mile from the designated Residential and Quiet Zones. Noise in the Residential Zone from step-up transformers, inverters, and array trackers on the Project site can be estimated at 32 dBA, 39 dBA, and 35 dBA, respectively, which is well within the Residential Zone's designated noise limit. Noise in the Quiet Zone from transformers, inverters, and array trackers can be estimated at 28 dBA, 35 dBA, and 31 dBA, respectively, which is well within the Quiet Zone's designated noise limit.

Given the nature of the Project, it is not anticipated that operations would increase ambient background noise levels. Because of the controls that would be implemented during construction and the nature of the area surrounding the Project site (i.e., industrial), noise impacts from the Project would not be significant.

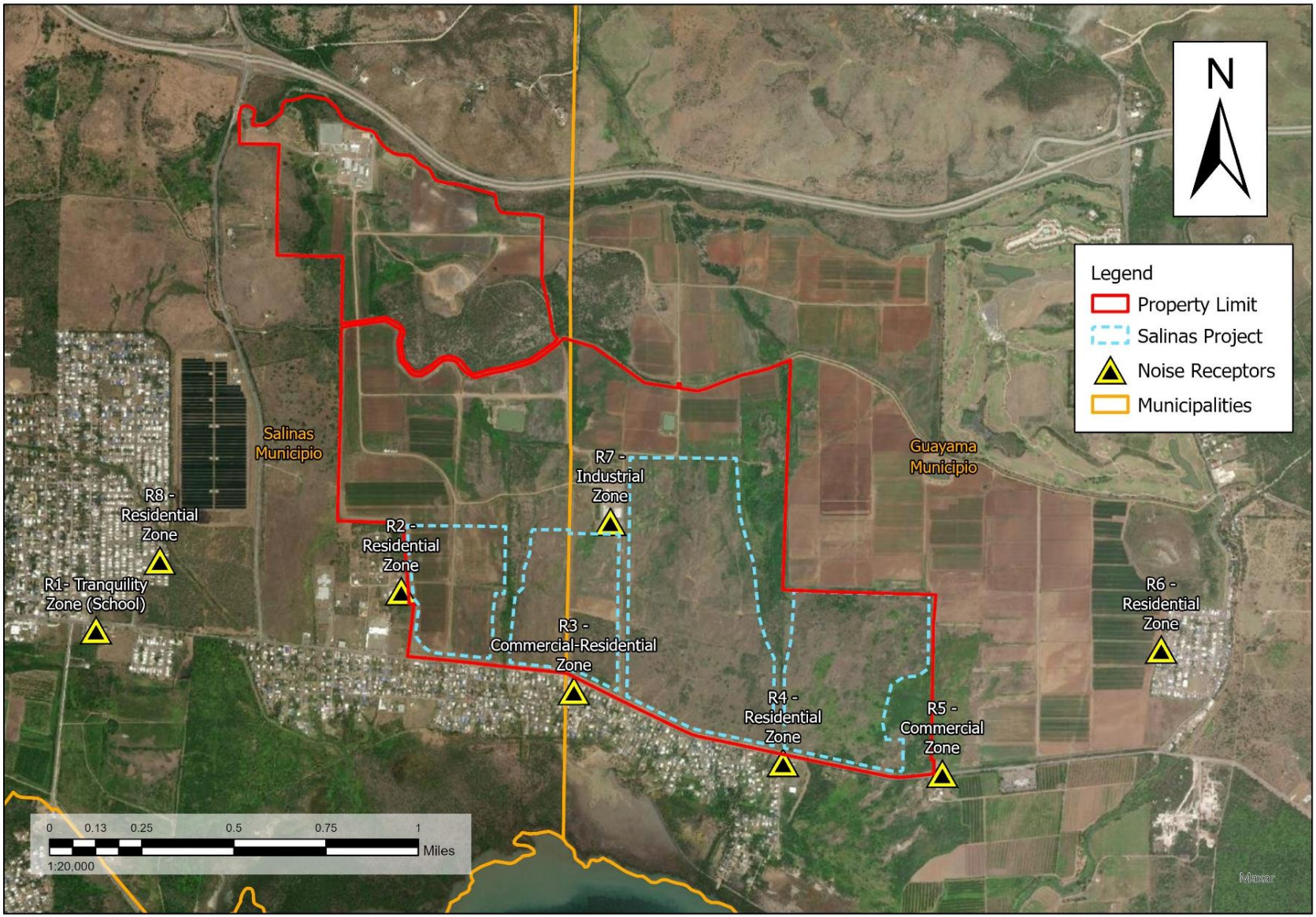
3.4.2 Salinas Project

The Project site is zoned for agricultural uses; residential, commercial, and industrial development is present in the surrounding area, along with agricultural uses. Neighboring properties are host to agricultural lands to the north; PR-3 and the San Felipe and Chun Chin communities to the south; PR-706, idle agricultural fields, vacant and unused lands, a state penitentiary, and residential and commercial uses to the west; and additional unused land to the east.

A noise assessment was conducted for the Project to evaluate noise impacts from construction and operation (Guzman 2023). Anticipated or projected sound levels (Table 4) were compared with the EQB noise regulations in Table 3. The site for the Salinas Project is classified as Zone III (Industrial), making Zone III the emissions source used for evaluation. Agricultural operations are considered an industrial noise source.

The noise assessment included the installation of eight hearing receptors at different points (Figure 17) to represent all of the receptor zones in the vicinity evaluated by the EQB and the ambient noise level at each one. The study concluded that there would be temporary noise impacts on residential areas that would be above EQB limits during construction. However, the impacts would be permitted under the authorization for construction. In addition, the BMPs described in Section 3.4.1 would also be applied at the Salinas site. This includes compliance with EQB noise pollution control regulations (e.g., the 2011 EQB Regulation No. 8019).

Figure 17. Noise Receptor Locations in Salinas Project Area



The main sources of noise during the Project operation would be stationary equipment used during the day, such as transformers, inverters, array trackers, and the on-site step-up substation. According to the National Electrical Manufacturers Association, such equipment, when measured at 5 feet, generates sound levels of 58 dBA, 65 dBA, 61 dBA, and 71 dBA, respectively, which would not significantly affect surrounding noise receptors.

Operation of a stationary PV and energy storage facility would not substantially increase existing ambient background noise levels. Most noise levels from the equipment would be below EQB limits, even at 5 feet. When considering the distances that would separate receptors from Project operations, even the highest measured sound level, at the R2 residential receptor (27.7 dBA), would not affect ambient sound levels.

Given the controls that would be implemented during construction, the lack of impacts during operation, and the existing ambient conditions in the vicinity, direct and indirect noise impacts from the Project would not be significant.

3.5 Transportation

3.5.1 Jobos Project

The main access route to Jobos 1 is PR-7707; the main access route to the Jobos 2, 3, and 4 parcels would be the municipal street that also provides access to the AES power plant located south of the Project site. The Project's influence area includes the intersection of PR-3 and PR-7707. PR-7707 connects with PR-53 approximately 4 miles north of the Project site.

During the estimated 24-month construction phase, there would be a slight increase in the number of heavy vehicles traveling on PR-3. Average daily traffic (ADT) on PR-3 is estimated at 10,880 vehicles per day. The Project would generate an estimated 600 daily trips (300 arriving and 300 leaving) at the peak of construction, or a 5 percent increase in traffic. Measures would be implemented during construction to control traffic, such providing signage to alert drivers to construction vehicles at site access points, setting speed limits, and complying with regulations regarding operating hours for machinery.

Trip generation during operation is estimated to total 16 daily trips (eight arriving and eight leaving), which would occur sporadically. This would result in a 0.15 percent increase in traffic on PR-3. Long-term impacts would not be significant because Project operations would not generate a significant increase in traffic in the area. In addition, the Project site is surrounded by state roads with heavy traffic from industrial activity in Project vicinity.

3.5.2 Salinas Project

The Project site is on PR-706, between PR-53, to the north, and PR-3, to the south, as shown in Figure 4. Because PR-53 and PR-3 span multiple municipalities, they experience a frequent and consistent flow of traffic. The main access route to the Project site is PR-706, which is to the west. PR-706 has existing deceleration lanes and gated access to the site. The site can also be accessed from PR-3, which is south of the Project site. The PR-3 access point leads northward to the abandoned Mycogen facilities. The Project's influence area includes two intersections: Intersection 1, PR-3 at PR-706, and Intersection 2, PR-706 at the PR-53 eastbound ramps.

A traffic study was conducted to determine the Project's impact on the surrounding roadway networks (Amado 2023). To evaluate the Project's impact, the traffic study used HCS2010, an industry-standard application, to calculate and compare the current vehicle flow (2023) with projected flows during construction (2024). Table 5 and Table 6 show the projected temporary increase in traffic and level of service (LOS) at the two intersections used for Project access.

Table 5. Intersection 1, Existing Condition vs Construction Condition during Peak Hours for Salinas Project

Peak Hours	Vehicle Flow Rate	LOS Rating	% Flow Rate Increase
Existing AM	950 veh/h	B	28.3%
Construction AM	1,219 veh/h	D	
Existing PM	737 veh/h	B	30.8%
Construction PM	964 veh/h	E	

veh/h = vehicles per hour

Table 6. Intersection 2, Existing Condition vs Construction Condition during Peak Hours for Salinas Project

Peak Hours	Vehicle Flow Rate	LOS Rating	% Flow Rate Increase
Existing AM	781 veh/h	A	25.8%
Construction AM	983 veh/h	A	
Existing PM	550 veh/h	A	31.6%
Construction PM	724 veh/h	A	

veh/h = vehicles per hour

Intersection 1 (PR-3 at PR-706) suffered the greatest impacts during construction in both the AM and PM peak hours. During construction, the AM peak hour experienced a 28.3 percent increase in the flow rate that shifted its existing LOS from LOS B (good) to LOS D (fair); the PM peak hour experienced a 30.8 percent increase in the flow rate that shifted its existing LOS from LOS B (good) to LOS E (poor). Meanwhile Intersection 2 (PR-706 at the PR-53 eastbound ramps) fared well during peak-hour construction. Although the AM and PM peak hours saw 25.8 and 31.6 percent increases in the flow rate, respectively, they maintained their existing LOS of LOS A (excellent), despite percentile increases similar to those of Intersection 1.

Temporary signage would be installed to alert drivers to construction vehicles at the site's access point along PR-706. Whenever possible, construction vehicles would use PR-53 for access, reducing access from PR-3 to the south. If Intersection 1 is to be used, trips involving heavy vehicles would be coordinated to avoid peak hours, taking into account Project needs. This approach would favor staggered and spread-out trips throughout the day.

During Project operation, it is estimated that eight staff members would generate 16 sporadic trips each day. The Project site would have eight parking spaces to accommodate the eight staff members. Long-term impacts would not be significant because Project operations would not generate a significant increase in traffic in the area. During Project operation, intersections would return to existing flow conditions (i.e., LOS B and LOS A at Intersections 1 and 2, respectively).

Given that traffic would be temporarily diverted to PR-53 during construction, PR-3 would be avoided during peak hours, and only a limited number of trips would occur each day during Project operation, the overall transportation impact would not be significant.

3.6 Aesthetic and Visual Resources

3.6.1 Jobos Project

The site is zoned for industrial use. The surrounding area is characterized by industrial, residential, and recreational uses. The Illumina solar farm, AES power plant, and the now-abandoned Chevron Phillips

facility are south of the Project site, approximately 164 to 230 feet away. Various pharmaceutical manufacturers are approximately 164 feet north of the property, across PR-3, and a school is approximately 820 feet to the west. Public facilities are approximately 1,476 feet west of the Project site. The Santa Ana community is approximately 328 feet northwest of the Project site. The Project site is divided from east to west by a municipal road and north to south by PR-3.

Multiple electric transmission and distribution lines cross the Project site, running both north to south and east to west. Views to the north include undeveloped forested land, an electrical substation, power lines, and pharmaceutical manufacturers. Northwest views consist of thick foliage, making visibility to the nearby Santa Ana community difficult. Views to the west, across PR-7710, include undeveloped land, a school, and recreational facilities. Lands to the south and east share the Project site's industrial zoning designation. Views to the south include the operational AES Illumina Solar Farm, AES coal-fired power plant, and the abandoned Chevron Philips oil refinery. Views to the east include undeveloped forested land.

Construction of the Project would result in permanent visual changes on the Project site. Solar structures, 8 feet in height, and administrative facilities would be seen from PR-3, PR-7707, and a municipal road. However, the siting of the Project would be consistent with the industrial zoning in the area and visually consistent with the neighboring AES Illumina Solar Farm, the industrial facilities to the south, and the pharmaceutical manufacturers to the north. The dominant visual elements in the area are the multiple transmission and distribution lines that run to and from the existing Jobos TC electrical substation north of the Project site.

Views from the school, recreational facilities, and residential area would not be affected, given the extent of unused vegetated land that separates the uses from the Project site. Some views from PR-3 and PR-7707 would be shielded by the transmission line easements and existing vegetation in the area between the roads and the Project site. Views from the northwest to the Santa Ana community would be limited because of undeveloped forested land and Melania Creek, which would provide natural buffers that would reduce visibility toward the site.

The Jobos Project would comply with zoning requirements. Given the industrial zoning for the site; the existing industrial uses in the vicinity, including a solar farm; existing electrical infrastructure; and natural vegetation near key viewpoints, impacts on aesthetics and visual resources resulting from the Project would not be significant.

3.6.2 Salinas Project

The site is zoned for agricultural uses. The surrounding area is characterized by industrial, agricultural, residential, and commercial uses. The site is bordered by PR-3 to the south, residential and commercial facilities to the east, and agricultural uses and unused lands to the north, east, and west. Electric distribution lines run north to south through the site. A transmission line would cross PR-706 and agricultural lands.

Views to the north include agricultural land, hills, PR-53, and undeveloped lands. Views to the east-northeast include mostly flat agricultural land, unused vegetated lands, a golf course, and a residential community. Views to the south include PR-3, along with a residential community and undeveloped forested land. Views to the west include residential communities, commercial facilities, and unused agricultural lands. The dominant visual elements in the area are the multiple transmission and distribution lines that originate at the Aguirre power plant, which is to the south.

Construction of the Project would result in permanent visual changes on the Project site. The 8-foot-tall solar structures would be visible from PR-3, neighboring agricultural lands to the north, and the residential community to the west and south. Areas along PR-3 would be planted with bushes to shield the views

from the road and residences to the south. Views from PR-706 would be limited by the topography, natural hills, and vegetation that separate the site from the road. Views from agricultural lands and residential communities on the east would be limited because of dense vegetation, which would provide a natural buffer and block views toward the site. A transmission line would be visible from segments along PR-53 and neighboring agricultural lands. However, the views would be visually consistent with the views of existing electrical infrastructure in the area.

Because of the Project location in an area with multiple uses, including solar infrastructure; the various elevations that block views from multiple directions; and the natural buffers, both within the site and between the site and populated areas, impacts on visual and aesthetic resources from the Project would not be significant.

3.7 Biological Resources and Threatened and Endangered Species

3.7.1 Jobos Project – Biological Resources

The predominant vegetation within the Project site consists primarily of unmanaged herbaceous species, scrub-shrub, and scattered trees, which are typical of former agricultural lands. No natural habitats exist on the site because of current[2] and historic land uses. No critical habitats have been designated on the Project site by the DRNA.

As part of the local permitting process for the Project, a series of flora and fauna studies and natural habitat classification reports were prepared and submitted to the DRNA (Ambienta 2021). The flora and fauna study (Ambienta 2021) was performed within properties that included the Project site. The study identified 171 flora species within the site. The dominant species were white siri (*Albizia procera*) mesquite (*Prosopis juliflora*), Manila tamarind (*Pithecellobium dulce*), West Indian elm (*Guazuma ulmifolia*), white leadtree (*Leucaena leucocephala*), Guinea grass (*Megathyrsus maximus*), prickly chaff flower (*Achyranthes aspera*), common wireweed (*Sida acuta*), and turkey berry (*Solanum torvum*). Most of these species, except West Indian elm, could be classified as invasive non-native species (i.e., noxious trees, shrubs, weeds). No threatened or endangered flora species were noted during the survey.

Fifty-four bird species were identified, with Greater Antillean grackle (*Quiscalus niger*), gray kingbird (*Tyrannus dominicensis*), and white-winged dove (*Zenaida asiática*) being the most observed species. Within the surveyed interconnection line segment (see detailed site layout in Figure 3), three specimens of the endemic and federally and Commonwealth-listed endangered yellow-shouldered blackbird (*Agelaius xanthomus*) were observed. The three were observed alongside a group of Puerto Rican grackle (*Quiscalus niger*), which were perched on trees and foraging for food. In addition, the survey noted the presence of 10 insect species, four reptile species, and three mammal species.

The 3.5 acres occupied by the interconnection line (see Figure 9) has been classified as Category 4 by the DRNA, which is a natural habitat classification, signifying habitat of ecological value. Because the area where the yellow-shouldered blackbirds were observed cannot be avoided by the Project, various mitigation alternatives are currently under evaluation to comply with the requirements of Puerto Rico Wildlife Act 241. These may include the acquisition and transfer of lands to the DRNA or the restoration of degraded habitat within natural reserve areas.

[2] Parts of the site are used for informal cattle grazing.

3.7.1.1 Jobos Project – Threatened and Endangered Species

There are two federally listed species in the Project area: Puerto Rican boa (*Chilabothrus inornatus*) and yellow-shouldered blackbird (*Agelaius xanthomus*). No designated critical habitat occurs in the Project area.

DOE reviewed the field surveys, reports, and findings associated with site for the Jobos Project and initiated formal consultation on March 15, 2024, under the programmatic biological opinions for the Puerto Rican boa. As part of consultation, DOE made a determination of "may effect, but not likely to adversely affect" determination for the yellow-shouldered blackbird, which the U.S. Fish and Wildlife Service (USFWS) concurred with on March 29, 2024 (see Appendix A).

As part of the programmatic biological opinion, Puerto Rican boas may need to be captured and relocated for their protection. The capture and relocation of Puerto Rican boas is considered a take and triggers a determination. On June 2022, USFWS issued a programmatic biological opinion (PBO) for the Puerto Rican boa, which was amended by the agency in July 2023. The PBO contains an incidental take statement (ITS) for this species for federal agencies consulting under the PBO. During construction, the Applicant would undertake the non-discretionary reasonable and prudent measures, the terms and conditions, the monitoring and reporting requirements, and the conservation measures included in the PBO. Specific conservation measures that the applicant would implement can be found in the PBO (USFWS 2023).

The outcomes of the consultations with both USFWS and DRNA indicate that impacts on biological resources stemming from the Project would most likely not be significant. These consultations very likely involved discussions and assessments of the potential effects of the Project on sensitive habitats, species, and ecosystems within the Project area.

Because of extensive historical impacts on lands within the Project area, including partial development, designation as a Superfund site, and informal cattle grazing, no natural habitat exists. The site also has a lack of connectivity to intact natural habitats, resulting in a low potential for wildlife utilization within the Project site.

Given the historical land uses, absence of natural habitat, lack of connectivity to intact natural habitats, Puerto Rican boa conservation measures, and consultation with DRNA and USFWS, with associated concurrences, no significant adverse effects on biological resources are anticipated from the Jobos Project.

3.7.2 Salinas Project – Biological Resources

Vegetation within the site for the Salinas Project consists primarily of grasslands, shrubs, and trees, which are indicative of land that was previously used for agricultural purposes. The site also includes plowed areas that are designated for cultivation and some cultivated patches of land. Most of the terrain consists of open grasslands that were once used for agriculture but are currently lying fallow. The partially forested areas would be avoided; these areas have been set aside from the Project area. The three streams on the Project site would also be avoided.

The comprehensive surveys performed within the properties containing the Project site (Ambienta 2021 and 2023) identified a total 157 flora species, dominated by species such as Guinea grass (*Megathyrsus maximus*), prickly chaff flower (*Achyranthes aspera*), common wireweed (*Sida acuta*), turkey berry (*Solanum torvum*), white siris (*Albizia procera*), mesquite (*Prosopis juliflora*), Manila tamarind (*Pithecellobium dulce*), West Indian elm (*Guazuma ulmifolia*), and white lead tree (*Leucaena leucocephala*). Most of these species (except *G. ulmifolia*) could be classified as invasive non-native species (noxious trees, shrubs, weeds). No threatened or endangered flora species were noted during the survey.

Among the fauna, birds were the most prevalent, with 55 species identified, including Greater Antillean grackle (*Quiscalus niger*), gray kingbird (*Tyrannus dominicensis*), and white-winged dove (*Zenaida asiática*) being the most observed species. On the property but outside the Project area, yellow-shouldered blackbird was observed with a flock of the Puerto Rican grackle (*Quiscalus niger*) nesting in abandoned agricultural buildings. Also, during the evaluation of the interconnection line for the Project, another individual yellow-shouldered blackbird was observed flying over the portion of the line that crosses PR-706. In addition, the survey noted 11 insect species, nine reptile species, two mammal species, and one crustacean species. One Commonwealth-threatened Southern Garden lizard (*Ctenonotus poncensis*) was also sighted within the area.

All lands classified by DRNA under natural habitat classification Category 4, which includes delineated wetlands, streams, and forested corridors, would be avoided; such areas were set apart from the Project area. No construction would occur within those lands to avoid impacts on habitats, as recommended by DRNA.

Available biological habitat in the Project area is limited to former agricultural land and vacant land. Most of the site was previously disturbed by agricultural activities. Because of the recent agricultural use on the site, it lacks natural habitat and a connection to intact natural habitats, which results in low potential for wildlife use.

3.7.2.1 Salinas – Threatened and Endangered Species

There are two federally listed species in the Project area: Puerto Rican boa (*Chilabothrus inornatus*) and yellow-shouldered blackbird (*Agelaius xanthomus*). No designated critical habitat occurs in the Project area.

DOE reviewed the field surveys, reports, and findings associated with site for the Salinas Project and initiated formal consultation on February 12, 2024, under the programmatic biological opinions for the Puerto Rican boa. As part of the consultation, DOE made a determination of “may effect, but not likely to adversely affect” determination for the yellow-shouldered blackbird, which USFWS concurred with on March 7, 2024 (see Appendix A).

As part of the programmatic biological opinion, Puerto Rican boas may need to be captured and relocated for their protection. The capture and relocation of Puerto Rican boas is considered a take and triggers a determination. On June 2022, USFWS issued a PBO for the Puerto Rican boa; the PBO was amended by the agency in July 2023. The PBO contains an ITS for this species for federal agencies consulting under the PBO. During construction, the Applicant would undertake the non-discretionary reasonable and prudent measures, the terms and conditions, the monitoring and reporting requirements, and the conservation measures included in the PBO. Specific conservation measures that the Applicant would implement can be found in the PBO (USFWS 2023).

The outcome of consultation with both USFWS and DRNA indicates that impacts on biological resources stemming from the Project would most likely not be significant. Consultation involved discussions and assessments regarding the potential effects of the Project on sensitive habitats, species, and ecosystems within the Project area.

Given the historical land uses, absence of natural habitat, lack of connectivity to intact natural habitats, Puerto Rican boa conservation measures, and consultation with DRNA and USFWS, with associated concurrences, no significant adverse effects on biological resources are anticipated associated with the Salinas Project.

3.8 Socioeconomics and Environmental Justice

3.8.1 Socioeconomics

3.8.1.1 Jobos Project

The Jobos Project would be located in the Jobos Ward, an area of approximately 11.8 square miles, in the municipality of Guayama, Puerto Rico. Based on the 2020 U.S. Census Bureau data, the Jobos Ward has a population of 7,980, which is about 20 percent of Guayama's population of 40,198. The population density for this ward is estimated at 676.3 people per square mile. The Jobos Ward is located at the edge of the municipality, with the Pozo Honda, Guayama Pueblo, and Machete Wards of Guayama surrounding it to the north and east and the Aguirre Ward of Salinas bordering it to the west.

Per 2020 census data, 19 percent of the population in the Jobos Ward works in sales and office occupations. Around 28 percent of the 1,503 employed individuals in Jobos are in service occupations (see Table 7). Of that category, the building/grounds cleaning and maintenance sector is the largest, with approximately 110 positions. Construction and operation of the Project is not expected to represent a need for new housing or service infrastructure because approximately 21 percent of the housing units in the Jobos Ward are vacant (see Table 8), and the Project during operation would employ only eight employees.

Table 7. Occupation for the Civilian Employed Population in Jobos Ward

Parameter	Positions	Percentage
Management, business, science, and arts occupations	373	25%
Service occupations	415	28%
Sales and office occupations	288	19%
Natural resources, construction, and maintenance occupations	201	13%
Production, transportation, and material moving occupations	226	15%
Employed population (16 years and over)	1,503	100%

Source: U.S. Census Bureau web page: https://data.census.gov/table (2020 ACS 5-year estimates and subject tables).

Table 8. Selected Characteristics of Housing in Jobos Ward

Parameter	Housing Units	Percentage
Owner occupied	1,777	65%
Renter occupied	394	14%
Vacant	582	21%
Total	2,753	100%

Source: U.S. Census Bureau web page: https://data.census.gov/table (2020 ACS 5-year estimates and subject tables).

The Project is expected to generate socioeconomic benefits by providing a source of renewable energy to the distribution network of the PREPA. This would contribute to the stabilization, reliability, and affordability of the system and be in line with the objectives of Puerto Rico Act 117.

The construction stage would generate approximately 754 jobs for both sites and construction would occur around the same time (Table 1 and Table 2). During operations, the Project would benefit the local and general economy by contributing to the development of a stable and affordable electric service. It would also generate tax revenue, create business opportunities related to periodic maintenance, and generate eight direct jobs, which would be required during the lifecycle of the system. Therefore, no significant adverse socioeconomic impacts are expected from construction and operation of the Project.

3.8.1.2 Salinas Project

The Salinas Project will be in the Aguirre and Jobos Wards in the municipalities of Salinas and Guayama, respectively. Aguirre has an area of approximately 19.5 square miles; Jobos has an area of approximately 11.8 square miles. Based on 2020 census data, the Aguirre Ward has a population of 12,628, representing 46 percent of the population of Salinas (27,638); the Jobos Ward has a population of 7,980, representing 20 percent of the population of Guayama (40,198). The density for the Aguirre Ward is estimated at 647.59 people per square mile; the density for the Jobos Ward is estimated at 676.3 people per square mile.

Table 9 shows employment by occupation type in the Aguirre and Jobos Wards. Construction and operation of this Project is not expected to represent a need for new housing or service infrastructure because approximately 21 percent of the housing units in the Aguirre Ward and Jobos Ward are vacant (see Table 10), and Project operation would require only eight employees.

Table 9. Occupation for the Civilian Employed Population in Aguirre and Jobos Wards

	Aguirre Ward		Jobos Ward	
Parameter	**Positions**	**Percentage**	**Positions**	**Percentage**
Management, business, science, and arts occupations	1,217	30%	373	25%
Service occupations	811	20%	415	28%
Sales and office occupations	853	21%	288	19%
Natural resources, construction, and maintenance occupations	526	13%	201	13%
Production, transportation, and material moving occupations:	661	16%	226	15%
Employed population (16 years and over)	4,068	100%	1,503	100%

Source: U.S. Census Bureau web page: https://data.census.gov/table (2020 ACS 5-year estimates and subject tables).

Table 10. Selected Characteristics of Housing in Aguirre and Jobos Wards

	Aguirre Ward		Jobos Ward	
Parameter	**Housing Units**	**Percentage**	**Housing Units**	**Percentage**
Owner occupied	3,854	63%	1,777	65%
Renter occupied	976	16%	394	14%
Vacant	1,282	21%	582	21%
Total	6,112	100%	2,753	100%

Source: U.S. Census Bureau web page: https://data.census.gov/table (2020 ACS 5-year estimates and subject tables).

The Project is expected to generate socioeconomic benefits by providing a source of renewable energy to the distribution network of PREPA. This would contribute to the stabilization, reliability, and affordability of the system and be in line with the objectives of the Puerto Rico Energy Public Policy Act—specifically, Act 17 of April 11, 2019.

The construction stage would generate approximately 754 temporary jobs for both sites and construction would occur around the same time (Table 1 and Table 2). During operation, the Project would benefit the local and general economy by contributing to the development of a stable electric service. It would also generate tax revenue, create business opportunities related to periodic maintenance, and generate eight

direct jobs, which would be required during the lifecycle of the system. Therefore, no significant adverse socioeconomic impacts are expected from construction and operation of the Project.

3.8.2 Environmental Justice

3.8.2.1 Jobos and Salinas Projects

The goal of an environmental justice (EJ) assessment is to evaluate the socioeconomic circumstances of the area that would be affected by a project as well as the environmental and human health conditions that could be affected. LPO's review of EJ issues focuses on Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations; the National-Scale Air Toxics Assessment (NATA) cancer risk and respiratory hazard index, as defined in EPA's EJ screening tool; and site-specific population centers (e.g., schools, day-care centers) near the Project site.

Executive Order 12898 directs federal agencies to address environmental and human health conditions in minority and low-income communities. The evaluation of EJ is dependent on determining if high and adverse impacts from the Project would disproportionately affect minority or low-income populations in the affected community.

In accordance with EPA's EJ guidelines, minority populations should be identified when either 1) the minority population of the affected area exceeds 50 percent or 2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

Most of the population in Puerto Rico, around 99 percent, is of Hispanic or Latino origin. The ethnic and racial composition of the areas for the Jobos and Salinas Projects, along with selected economic parameters, are presented in Table 11. The data presented in the table highlights a racial and ethnic diversity beyond the broad classification of Hispanic or Latino/Non-Hispanic provided by the U.S. Census Bureau.

EJ screening takes into consideration the NATA cancer risk and respiratory hazard index, as well as other EJ indices, to evaluate the level of burden the population is exposed to in comparison to the municipality. Table 12 provides a summary of selected variables, with percentiles relative to the rest of Puerto Rico.

Based on the information above, it seems that the population of Jobos and Guayama faces higher burdens due to its proximity to facilities that generate pollutant emissions (e.g., AES Puerto Rico, Baxter Health Care, contaminated sites such as the Fibers Public Supply Wells Superfund site).

According to 2020 census data, approximately 17 percent of the population in Aguirre and 15 percent of the population in Jobos is over 65 years, a group that is vulnerable to respiratory hazards.

Table 13 provides a summary of selected variables with percentiles relative to the rest of Puerto Rico.

Table 11. Population, Ethnicity, and Poverty –Jobos and Salinas Projects

Parameter	Aguirre	Jobos	Salinas	Guayama	Puerto Rico
Total population	12,628	7,980	27,638	40,198	3,255,642
Race/ethnicity					
White	51.8%	59.7%	51.5%	68.9%	60.0%
Black or African American	36.7%	21.6%	35.7%	15.5%	11.3%
American Indian and Alaska Native	0.0%	0.0%	0.0%	0.0%	0.2%
Asian	0.1%	0.1%	0.1%	0.1%	0.2%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.0%	0.4%	0.0%

Parameter	Aguirre	Jobos	Salinas	Guayama	Puerto Rico
Some other race	3.6%	11.8%	3.8%	7.8%	18.7%
Population of two or more races	7.8%	6.9%	8.9%	7.3%	9.7%
Mean per capita income	$10,427	$11,172	$9,860	$10,385	$13,318
Mean household income (dollars)	$28,182	$28,375	$24,618	$25,705	$33,315
Percentage of households receiving food stamps	47.8%	56.5%	38.7%	51.8%	41.4%
Households below poverty level	40.4%	57.1%	49.1%	50.6%	44.4%
Unemployment rates	3.8%	5.1%	5.8%	8.8%	15.1%
Median age	37.7	37.8	42.1	39.6	42.4
Population 65 and over	2,136	1,195	5,414	7,342	667,206

Source: U.S. Census Bureau web page: https://data.census.gov/table (2020 ACS 5-year estimates and subject tables).

Table 12. EJ Indices Percentile Ranking Compared to the Rest of Puerto Rico – Jobos Project

Variables	Jobos	Guayama
Diesel particulate matter	22	17
Air toxics cancer risk*	0	0
Air respiratory hazard index*	0	0
Lead paint	46	48
Superfund proximity	93	87
Risk management plan proximity	85	71
Hazardous waste proximity	74	53

Source: EJScreen, EPA's Environmental Justice Screening Tool (Version 2.11)
**Insufficient Data: Levels retrieved from the https://www.epa.gov/AirToxScreen/2019-airtoxscreen, started to document values in the 8th decimal position for both the counties and the island.*

Table 13. EJ Indices Percentile Ranking Compared to the Rest of Puerto Rico – Salinas Project

Variables	Aguirre	Jobos	Salinas	Guayama
Diesel particulate matter	11	22	8	17
Air toxics cancer risk*	0	0	0	0
Air respiratory hazard index*	0	0	0	0
Lead paint	44	46	53	48
Superfund proximity	57	93	53	87
Risk management plan proximity	4	85	4	71
Hazardous waste proximity	23	74	21	53

Source: EJScreen, EPA's Environmental Justice Screening Tool (Version 2.11)
**Insufficient Data: Levels retrieved from the https://www.epa.gov/AirToxScreen/2019-airtoxscreen, started to document values in the 8th decimal position for both the counties and the island.*

The population in Salinas and Guayama faces higher burdens due to its proximity to facilities that generate pollutant emissions (e.g., PREPA Aguirre power plant, IDI Caribe, AES Puerto Rico, Baxter Health Care, contaminated sites such as the Fibers Public Supply Wells Superfund site).

Even though the general population for both municipalities is disadvantaged and facing environmental challenges, the Project does not represent an additional, disproportionate, or excessive environmental burden for these communities due to the following:

- The Project would contribute to diversifying the production of energy, reinforcing PREPA's distribution network.
- The Project would not represent urban expansion that could promote gentrification and would not displace any commercial activity in the area.
- The Project would allow the combination energy production and cattle production.
- During operation, the Project would not produce emissions at a level that could contribute to or exacerbate the environmental burdens of the municipality.
- The investment in this Project would have a positive effect on the economy of the municipalities due to tax revenues and the generation of employment.
- The Project would improve the quality of the environment, providing a source of renewable energy, decreasing the use of fossil fuels, and reducing GHG emissions, representing a better use of the natural resources in benefit of the environment, public health, and the economy.

Therefore, the Project would have no significant adverse impacts on EJ communities. The Project may produce EJ benefits from temporary construction jobs, permanent operational jobs, and power generation that replaces the use of fossil fuels.

3.9 Soils and Prime Farmlands

3.9.1 Jobos Project

The site for the Jobos Project is on the southern coast of Puerto Rico, within the Santa Isabel-Patillas region in the municipality of Guayama. This region is characterized by alluvial plains formed from sediments carried by river currents from the mountainous interior. The Project site is characterized mostly by flat terrain that gradually slopes southward toward the coast. According to the USGS Guayama geological quadrangle, the Project site lies in coastal alluvial valleys, classified as Qa (alluvium and river-

terrace deposits). This geological unit is composed of silt, sand, clay, sandy clay, and layers of sand with gravel composed of sedimentary and igneous rocks.

The Project site was historically used for agricultural purposes. Jobos 2, located south of PR-3 and east of a municipal road, was partially developed for industrial uses in 2006 but has remained vacant. PRIDCO previously developed the site by grading, constructing an access roadway, and installing utilities. The site has a utilities right-of-way for electrical, sanitary sewer, and potable water services. Jobos 3 has been subject to remedial investigations and activities as a Superfund site under CERCLA. The property has utilities rights-of-way from the PREPA and the PRASA. A 230 KV electric transmission line traverses the center of the site from south to north. A 38 KV electric transmission line borders the site on the west (parallel to PR-7707) and north (parallel to PR-3). A 6-inch sanitary line (east of the 230 KV electric lines) also runs through the site.

Based on information obtained from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), there are five soil associations within the Project site, which are shown in Table 14.

Table 14. Soil and Farmland Classification – Jobos Project

Map Unit Symbol	Map Unit Name	Acres	Percent of Total Acres	Farmland Classification
Ce	Cartagena clay	10.2	3.2%	Farmland of statewide importance
Gm	Guamani silty clay loam	38.7	12.0%	Not prime farmland
Po	Poncena clay	2.6	0.8%	Prime farmland if irrigated
Vc	Vayas silty clay, frequently flooded	62.1	19.3%	Farmland of statewide importance
Vs	Vives silty clay loam, high bottom	208.7	64.7%	Prime farmland if irrigated
TOTAL		322.3	100%	

Prime farmland, as defined by the USDA, is land with the ideal parameters for the production of food, feed, forage, fiber, and oilseed crops. Approximately 65.6 percent of the Project site is classified by NRCS as prime farmland if irrigated, 22.4 percent is farmland of statewide importance, and 12.0 percent is not prime farmland (Table 14). Development of the Project would result in the conversion of approximately 284 acres of prime farmland and farmland of statewide importance soils, representing 2.3 percent of all prime farmland and farmland of statewide importance soils in the Municipality of Guayama. Because the Project would result in conversion of potential farmland, DOE consulted with NRCS to conduct a farmland conversion impact rating in compliance with the FPPA. The rating is based on a land evaluation component, which identifies the relative value of farmland to be converted on a scale of 0 to 100, and a site assessment component, which evaluates other factors that contribute to the site's agricultural importance on a scale of 0 to 160. For sites receiving a score of 160 or greater, alternative actions to reduce impacts on farmland should be considered. The Project received a land evaluation rating of 79 and a site assessment rating of 27, for a total score of 106 (Appendix A).

The Project would result in development in areas that contain soils that have been classified as prime farmlands; however, because the Project is zoned for industrial uses, is partially developed, affected by infrastructure rights-of-way, and undergoing remediation as a Superfund site, which limits agricultural uses on portions of the Project site, impacts on soils and prime farmland by the Project would not be significant.

3.9.2 Salinas Project

The site for the Salinas Project is characterized by southward-sloping coastal alluvial plains of highly variable thickness due to extensive bedrock faulting surrounded by rocky outcroppings of varying elevations. The sites' varying topography stems from the diverse geological formations, which characterize the hills and slopes north and west of the general Project area. The transmission line alignment would cross steep south-sloping rocky hills from the Project site across PR-707. According to the Guayama geological quadrangle published by USGS, the geological formations are classified mainly as coastal alluvial valleys (Qa [alluvium deposits]) for the general Project area, while the transmission line harbors rock outcroppings of Formation C and Formation A (Kabcj) and the Robles Formation (Kr). Alluvium is an unconsolidated mixture of sand, gravel, and stone that originates as a product of the erosion of the volcanic rocks of the mountain ranges. Both Kabcj and Kr consist of a volcanic breccia base under diverse compositions of sandstone, limestone, and other sedimentary rocks.

The Project area was used by Dow AgroSciences for the development of corn and soybean seed varieties. Currently, the Project area is composed mostly of land with a slightly undulating topography, with areas of grasslands and shrub species that have colonized the property, presumably after seed research-and-development activities were abandoned. Portions of the property outside of the Project limits of disturbance are also currently used for cattle ranching and would remain in agricultural uses during Project development and operation.

The general soil map prepared from NRCS data classifies the property within the Jacana-Amelia Fraternidad Association. This soil association presents moderately deep soils with good drainage and gentle to steep slopes. This soil has been formed from fine and coarse sediments derived from limestone and volcanic rock. According to the NRCS, the soils under the Jacana-Amelia Fraternidad Association have limitations for agricultural use due to their moderate slope, susceptibility to erosion, and high potential for contraction and expansion.

According to NRCS, there are five soil associations within the Project site, as shown in Table 15.

Table 15. Soil and Farmland Classification – Salinas Project

Map Unit Symbol	Map Unit Name	Acres	Percent of Total Acres	Farmland Classification
AmB	Amelia gravelly clay loam, 2 to 5 percent slopes	0.8	0.2%	Prime farmland if irrigated
AmC2	Amelia gravelly clay loam, 5 to 12 percent slopes, eroded	1.7	0.4%	Prime farmland if irrigated
CIB	Coamo clay loam, 2 to 5 percent slopes	2.0	0.5%	Prime farmland if irrigated
DeE2	Descalabrado clay loam, 20 to 40 percent slopes, eroded	5.9	1.4%	Not prime farmland
JaB	Jacana clay, 2 to 5 percent slopes	2.5	0.6%	Farmland of statewide importance
JaC2	Jacana clay, 5 to 12 percent slopes, eroded	1.6	0.4%	Farmland of statewide importance
PIB	Paso Seco clay, 0 to 5 percent slopes	318.4	77.9%	Prime farmland if irrigated
Po	Poncena clay	60	14.7%	Prime farmland if irrigated
VvB	Vives clay, 2 to 7 percent slopes	15.7	3.8%	Prime farmland if irrigated
Total		408.6	100%	

Approximately 97.6 percent of the Project site is classified by NRCS as prime farmland if irrigated, 1.0 percent is farmland of statewide importance, and 1.4 percent is not prime farmland (Table 15).

Development of the Project would result in the conversion of approximately 295 acres of prime farmland and farmland of statewide importance soils in the Municipality of Guayama and 108 acres of prime farmland and farmland of statewide importance soils in the Municipality of Salinas (403 acres total), representing 2.4 percent and 0.4 percent of all prime farmland and farmland of statewide importance soils in the Municipalities of Guayama and Salinas, respectively. Because the Project would result in conversion of potential farmland, DOE consulted with NRCS to conduct a farmland conversion impact rating in compliance with the FPPA. The Project received a land evaluation rating of 93 and a site assessment rating of 62, for a total score of 155 (Appendix A).

The Project would result in development in areas that contain soils that have been classified as prime farmlands; however, CFE is currently developing plans for sheep grazing on the Project site during operation to maintain agricultural use of the land. Because the Project did not exceed a farmland conversion impact rating score of 160 and the potential exists for agricultural activities to continue during operation, impacts on soils and prime farmland would not be significant.

3.10 Land Use

The regulatory agency responsible for land use is PRPB. On June 16, 2023, PRPB implemented Regulation 9743: Joint Permit Regulation for Evaluating and Expediting Permits Related to Land Development and Use and Operation of Businesses (Joint Permit Regulation). The 2023 Joint Permit Regulation classifies land in terms of zoning districts and establishes specific requirements regarding the use and design parameters of the projects permitted in such districts. The PRPB has also adopted zoning regulations to facilitate the control and management of land uses as well as guide the permitting and development process.

Land Use Consultation (Consulta de Ubicación [CUB]) is the usual process for projects that are not expressly authorized (i.e., permitted as of right) within a specific zoning district. The Permits Management Office (OGPe), as the PRPB's operational branch, also plays a critical role in authorizing the siting and development of projects by implementing and enforcing the public policy adopted by the PRPB. Despite renewable energy projects being allowed as a right in several zoning districts in Puerto Rico, a CUB is also the process through which OGPe's Adjudicative Board reviews and authorizes the siting and development of renewable energy projects of more than 1 MW in Puerto Rico. As part of adopting the framework for the development of renewable energy projects, the PRPB issued Resolution No. JPI-41-01-2023 on October 18, 2023. In relevant part, this resolution clarifies that the definitions for "renewable energy system" and "renewable energy sources" are meant to include projects consisting of a stand-alone BESS without an energy generation component.

3.10.1 Jobos Project

The Project area was used historically as land for sugar cane crops and cattle pastures. Since the 1960s, several industrial facilities were built in the vicinity of the subject property, including Fibers International Corporation (nylon fiber manufacturing), Chevron Phillips (specialty chemicals), and Smith Kline Beecham (pharmaceutical manufacturing). In the early 1990s, the Guayama Correctional Facility was established north of PR-3. In 2002, AES Puerto Rico initiated operation of a coal-fired power plant south of the subject property. Residential development is limited in the surrounding area. Jobos 1 is currently undeveloped and forested. Jobos 2 remains vacant, but it has been improved with an interior access road, security fence, entrance control gate, and stormwater management system. Jobos 3 and 4 are part of the Superfund site and undergoing remedial action.

The property is zoned Light Industrial under local zoning regulations. Because renewable energy projects are an allowed activity within Light Industrial areas, the Project would not need to change the site's existing zoning designation; it would only need to go through a CUB, as required by the 2023 Joint Permit

Regulation for PV sites of 1 MW or greater. The CUB was approved by OGPe on December 12, 2023 (see Appendix B). The CUB process required state agency consultation, public notification, and review by an adjudicative board within OGPe.

The Project is located within the Coastal Zone Inland Boundary (CZIB) and therefore falls under the purview of the Puerto Rico Coastal Zone Management Program (PRCZMP). The CZIB includes areas 1,000 meters from the shoreline (i.e., all of the Jobos site south of PR-3). The PRCZMP requires all federally funded projects within the Coastal Zone to be evaluated through the coastal consistency determination process and issued a certification of consistency. The Project was presented to the program's evaluating agency, PRPB, on March 6, 2024. PRPB issued a federal consistency certificate on April 26, 2024 (see Appendix A).

Because the site for the Jobos Project is in an light industrial zone and the PV solar field and BESS are allowed activities, and because the Project would be consistent with the PRCZMP, no significant adverse effects on land use are anticipated.

3.10.2 Salinas Project

The subject property has been historically used for agricultural purposes. The land was used for various cattle and dairy activities until it was acquired by Mycogen seeds in 2012 for industrial seed production (Guzman-Colon 2021). Most of the study area is currently vacant. Roughly 583 acres of the study area and adjoining area is currently leased for agricultural purposes.

The property is zoned Agricultural Productive, as defined by local zoning regulations. Renewable energy projects are allowed within A-P uses; therefore, the existing zoning designation would not need to be changed. The CUB was approved by OGPe on May 16, 2024 (see Appendix B).

The CZIB spans a 123-acre portion of the site across its southern border. The Project's location requires consistency with the PRCZMP. The Project was presented to the program's evaluating agency, PRPB, on March 6, 2024. The PRPB's decision to issue a federal consistency certificate is pending.

Because the site for the Salinas Project is zoned Agricultural Productive, a designation that allows renewable energy projects, and because the Project is under review for consistency with the PRCZMP, no significant adverse effects on land use are anticipated.

3.11 Cumulative Impacts

Cumulative impacts are potential effects on the environment from the incremental impact of a project when added to the past, present, and reasonably foreseeable future actions undertaken by local and/or federal agencies or persons. Projects considered in this section were identified through a review of the permit database included in the Puerto Rico interactive map tool hosted by the PRPB, historic aerial photographs, the digital Cadastre tool hosted by the Municipal Revenue Collection Center, and PR100 (PRPB n.d.; Municipal Revenue Collection Center n.d.; DOE 2023). The area considered for this assessment applies to both Project sites and extends from Salinas on the west and toward Guayama, located east and south of PR-52 and PR-53, as shown in Figure 18. In addition, other projects subject to NEPA review by DOE LPO on the island of Puerto Rico are considered in this section.

One renewable energy project was identified that is currently in development within the assessment area. The 90 MW solar and 51.5 MW storage project by Ciro Energy Group is between PR-53 and PR-3, roughly 2.5 miles west of the Salinas site. The Salinas site would tie into the grid at the offsite substation, currently under construction by Ciro.

Two existing renewable energy projects were also identified within this area and shown in Figure 18.

- A 24 MW solar facility administered by AES Illumina, LLC, located between PR-7710 and the existing AES coal-fired power plant in Guayama.
- A 10 MW PV solar facility administered by Horizon Energy, LLC, located west of PR-706 between PR-3 and PR-53.

In relation to the agricultural sector, the following new or expansion projects were identified and shown in Figure 18.

- Corteva Agriscience Puerto Rico, Inc., has been expanding its infrastructure dedicated to agriculture biotechnology, west of Salinas site.
- Agriart, LLC, continues to expand its research and eco-agricultural development, located north of the Salinas site.
- Recycloponic Salinas is proposing to operate a Category 2 composter, as shown in Figure 18.

Other DOE projects in Puerto Rico, including those undergoing active NEPA review by LPO, include:

- A 100 MW solar PV facility and 55 MW BESS on 322 acres in the municipality of Coamo, bounded by PR-14 to the north and the Coamo River to the southeast. Also includes 100 MW BESS in Penuelas, 25 MW BESS in Ponce, and 25 MW BESS in Caguas, all to be developed by Convergent Ashford Development, LLC.
- A 32.1 MW solar PV and 17 MW BESS in Yabucoa, to be developed by Infinigen Yabucoa on 183 acres located east of PR-53 on both sides of PR-9914 and adjacent to the existing petrochemical storage facility in the municipality of Yabucoa.
- A 65 MW solar PV and 25 MW BESS on 177 acres in the Lapa Ward of Salinas and 65 MW solar PV and 25 MW BESS on 132 acres in the Machete Ward of Guayama, to be developed by the Ciro Energy Group (not including the existing Ciro One facility).
- Programa Acceso de Solar – Program opened on February 22, 2024, supporting installation of residential rooftop solar and battery energy storage at 30,000 households throughout Puerto Rico for zero upfront costs (DOE n.d.).
- Project Hestia – LPO portfolio loan guarantee to Sunnova Corporation to build residential rooftop solar with a focus on Puerto Rico.

Programa Access de Solar and Project Hestia residential rooftop sites are located throughout Puerto Rico. Refer to Figure 19 for the approximate location of the other utility-scale solar and battery storage projects under DOE NEPA review.

LPO reviewed the other solar projects identified in the region, projects subject to active NEPA review by LPO, and DOE's Programa Acceso de Solar to determine the resources that may be subject to a cumulative impact. Based on this review, the following resources were evaluated for cumulative impacts:

- Aesthetic and visual resources
- Air quality and climate change
- Soils and prime farmland
- Land use
- Socioeconomics and environmental justice

Law No. 17 of April 11, 2019 (Act 17), established a goal for Puerto Rico to produce 100 percent of its energy from renewable sources by 2050. Act 17 also prohibits electricity generation based on coal from 2028 onwards. This would require the retirement of the AES Guayama plant, which has a generation

capacity of 454 MW, by the end of 2027. DOE's PR100 study supported the technical evaluation of these objectives, which included identification of utility-scale solar in Puerto Rico's energy portfolio as a cost-effective option to meet the island's energy needs. PR100 found that 100 percent renewable power generation by 2050 is achievable and identified grid stabilization measures, utility-scale renewables, and the deployment of distributed energy resources as ways to achieve that goal.

Figure 18. Projects within Salinas and Guayama Municipalities

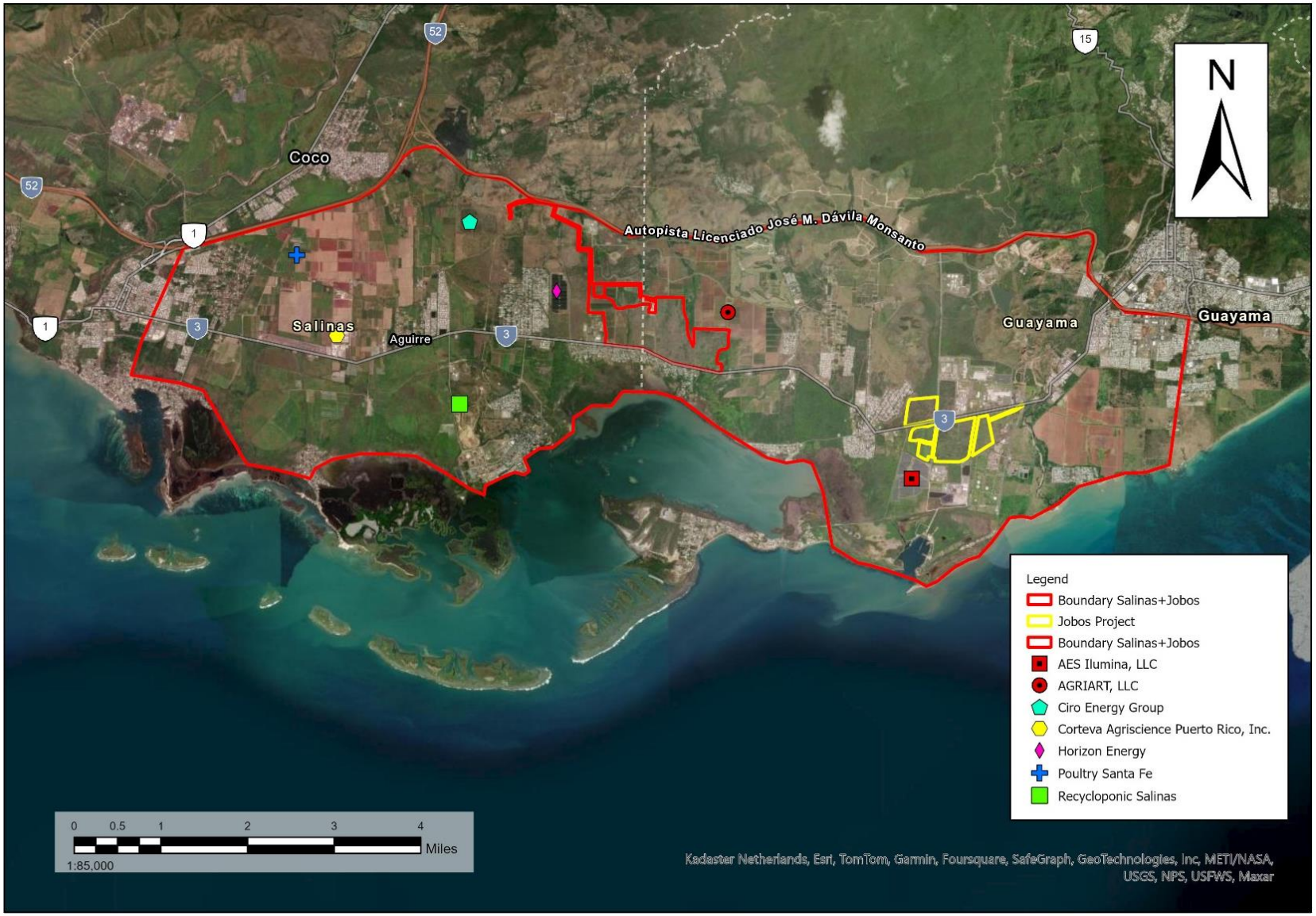
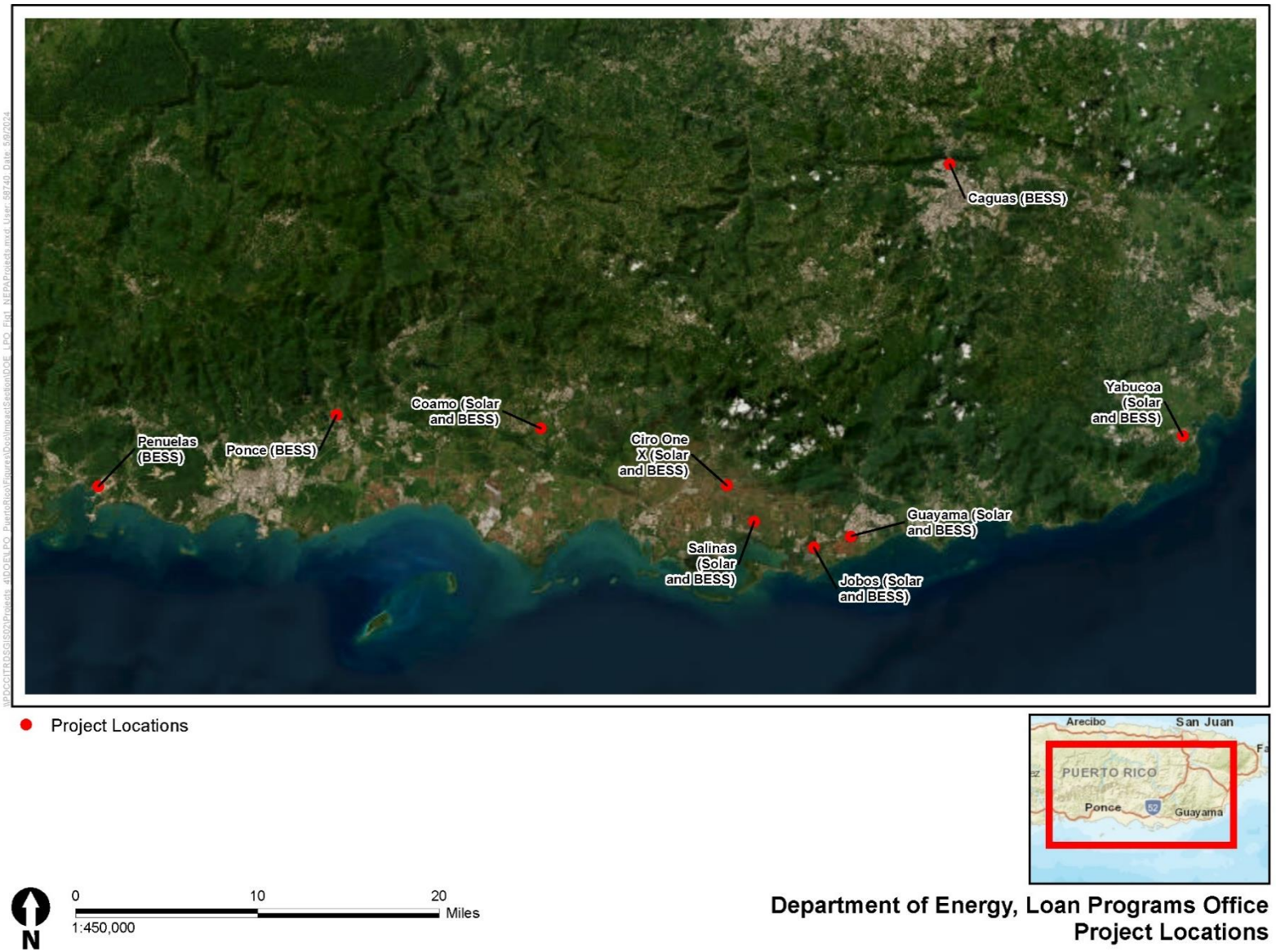


Figure 19. Other DOE Projects in Puerto Rico



Law 17-2019 aligns with recent executive orders from the president of the United States related to resilience to climate change, including Executive Order 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, and Executive Order 14008, Tackling the Climate Crisis at Home and Abroad. Furthermore, the Integrated Resource Plan (IRP) and the Modified Action Plan (MAP) of the Puerto Rico Electric Power Authority, as approved by the Puerto Rico Energy Bureau (NEPR), outline the necessary resources to meet the energy demand for the next 20 years (NEPR 2020 and 2021). The IRP mandates aggressive development of renewable generation systems, mainly PV generation systems, while providing a roadmap for phasing out fossil fuels. As approved by NEPR, the IRP includes a request for proposals process through six tranches for the acquisition of up to 3,750 MW of solar generation capacity and 1,500 MW of energy storage through battery systems to cover 40 percent of energy demand with renewable sources by 2025.

3.11.1 Aesthetic and Visual Resources

The Jobos Project is proposed to be located within an industrial park with active and abandoned power facilities to the south, including AES Ilumina, LLC, and pharmaceutical facilities to the north. Some of these pharmaceutical facilities have their own PV projects, such as Pfizer Pharmaceuticals, LLC, to cover their power requirements. In addition, the existing coal-fired power plant operated by AES is located directly to the south of the Jobos Project and visible from area communities and homes because of the relatively flat topography and height of the power plant. Construction of the Jobos Project would result in a visual impact that would last for the lifecycle of the Project, estimated at approximately 35 years. The change in the landscape in this area was considered by and consistent with the designation of industrial zoning for the site and the co-location of other power generation resources in the area.

The Salinas Project would be located around agricultural and residential uses. Visually, the impact in this area would be more noticeable because Horizon Energy, LLC, is operating 425 meters west of the Salinas Project and Ciro Energy Group is under construction 2,250 meters northwest of the Salinas Project. These three projects would be close to one another, as shown in Figure 18. Aesthetics and visual resources in the area were already affected by the electrical infrastructure existing in the area (aerial transmission lines). There are some variations in topography and vegetation barriers to geographically separate the visual impacts of these actions. The Salinas Project would not be visible from the Ciro Group or the Horizon Energy sites. The Jobos Project site would be visible from the Illumina project site.

Because the additional solar development in these two areas is consistent with the existing zoning and consistent with land uses of approved and anticipated cumulative projects, and because visual impacts of the projects would be reduced by existing visual barriers and proposed mitigation plans, cumulative impacts on aesthetics and visual resources would not be significant.

3.11.2 Air Quality and Climate Change

Construction of PV solar projects involves clearing, minor grading, development and maintenance of pathways, vehicle traffic over unpaved roads, and excavation, which would result in fugitive dust emissions. In addition, it requires the use of heavy machinery, vehicles, and potential use of electrical generators, which would result in localized short-term increases in air emissions due to the use of diesel fuel and gasoline. Emissions resulting from these activities would be temporary and limited to the construction period. During the construction and operation stage, these solar projects would require emergency generators; therefore, each one of them would require an individual environmental permit to operate a source of emission from the DRNA. Emergency generators would be operated for periodic testing and maintenance; otherwise, they would be operated only during emergencies, when electricity from the Project or LUMA Energy is not available.

Due to EPA's regulation to reduce the amount of sulfur in diesel fuel to 15 parts per million by 2015, sulfur oxide emissions associated with construction of these projects would be negligible. In relation to fugitive dust emissions, these projects would be developed with different time periods, and by regulation, each project would be required to implement BMPs that should provide significant fugitive dust control. Air emissions from Project construction would be expected to be low and temporary and would not occur within the same timeframes as cumulative projects. Because overlapping timeframes would not occur during the construction stage of cumulative projects, cumulative impacts from fugitive dust emissions during construction would not be expected. Emissions from periodic operation of emergency generators for maintenance and testing, and during emergency conditions, would be low compared to the emissions of existing and anticipated cumulative projects; therefore, emergency generator operation would not result in a cumulative impact on air quality during Project operation.

The purpose of the PV solar facilities is to provide alternative energy that reinforces PREPA's distribution system while decreasing the need for burning fossil fuels and generating GHGs.

LPO evaluates the technical eligibility of each loan guarantee application, which includes an analysis of GHG emissions associated with a project. For the Jobos and Salinas projects, LPO determined that the projects would result in GHG emissions reductions by displacing energy generated at existing fossil fuel generation resources. The energy generated by Jobos and Salinas PV and BESS projects would avoid approximately 372 kilotons of carbon dioxide (CO_2) annually. Convergent Energy would avoid 360 kilotons of CO_2 emissions, with an additional 63 MW of energy replaced from fossil fuel generation by its energy storage components. The Yabucoa solar project would avoid 76 kilotons of CO_2 annually, and the Ciro Group Project would avoid 433 kilotons of CO_2 emissions annually. Together, these projects would avoid 1,241 kilotons of CO_2 annually while producing electricity that would have otherwise been generated by fossil fuel resources and contribute to Puerto Rico's goal of producing 100 percent of its power with renewable energy by 2050. In general, the potential benefits associated with reducing CO_2 emissions would support a reduction in GHG concentrations and the associated climate change impacts (e.g., increases in atmospheric temperature, changes in precipitation, increases in the frequency and intensity of extreme weather events, and rising sea levels). In addition, to protect the projects from the effects of climate change (e.g. severe weather), the solar PV systems is designed to withstand windspeeds of up to 164 mph, which is a Category 5 on the Saffir-Simpson scale.

By avoiding air pollution associated with fossil fuel generation and reducing GHG emissions that contribute to climate change, the cumulative impact of the Project would be a beneficial impact on air quality and climate change. There would be no significant adverse cumulative impacts associated with air quality and climate change.

3.11.3 Soils and Prime Farmland

The Jobos Project is located within lands owned by PRIDCO, which are designated for industrial development. Portions of the Project site are located on a Superfund site subject to ongoing remedial activities. Therefore, the Jobos Project would have no impact on farmland. However, coordination with NRCS indicates there are roughly 211 acres of prime or unique farmland soils on the site (Appendix A [AD 1006 form]). The Salinas Project would be located in an area with active and vacant agricultural land. The AD 1006 form for the Salinas Project received from NRCS indicates 398.6 acres of prime or unique farmland on the site, for a total of 506.9 acres of prime or unique farmland converted by the Project. Construction of the Salinas Project, as well as the nearby Ciro Energy Group project, would have permanent impacts on farmland due to the Project's long-term facilities such as parking areas and an administrative building. Short-term impacts, including soil erosion, soil compaction, and loss of soil structure due to the use of heavy equipment, solar panel installation, and vehicular traffic across the sites, are expected to be negligible.

The Jobos and Salinas Projects would result in 0.1 percent of the total acreage of prime or unique farmlands and farmlands of statewide importance in Puerto Rico being converted to renewable energy uses. Currently, LPO is actively preparing NEPA documents for the Convergent Energy, Infinigen Yabucoa, and Ciro Group solar PV and storage projects, in addition to the Jobos and Salinas projects, that may result in the conversion of farmland soils. The projects under active NEPA review represent a conversion of approximately 1,722 acres of prime or unique farmland and farmland of statewide importance soils, or 0.3 percent of the total acreage of prime or unique farmland and farmland of statewide importance soils in Puerto Rico. The area of farmland soil conversion by municipality from the projects under active NEPA review are shown in Table 16. LPO notes that Programa Accesso de Solar and Project Hestia affect only existing buildings and would not affect prime farmland.

Table 16. Farmland Soil Conversion from DOE LPO Projects by Municipality

Municipality	Acres of Conversion	Percent of Total Acres of Farmland by Municipality
Caguas	6	0.05%
Coamo	541	4.42%
Guayama	726	5.84%
Ponce	12	0.08%
Salinas	245	0.95%
Santa Isabel	12	0.08%
Yabucoa	181	1.40%

Note: Includes soils classified as prime farmland and farmland of statewide importance based on NRCS Web Soil Survey Data (NRCS 2022). Acres of conversion are based on current design of projects in DOE LPO NEPA review (Jobos, Salinas, Convergent Energy, Ciro Energy, Infinigen Yabucoa) as of May 2024 and are subject to change.

To receive funding from LPO, all projects must acquire local permits and have permission to build and operate their projects. This process involves permitting by Puerto Rico regulatory authorities pursuant to all local laws and regulations, including those pertaining to land use changes. The Puerto Rico Agricultural Department issued a letter of no objection to the Project on October 14, 2021. Puerto Rican authorities have determined that the Project is consistent with the laws of the territory. Furthermore, the FPPA does not infringe on the rights of private property owners in any way.

These projects would not represent a displacement of the potential agricultural productivity of the land because renewable energy use could be combined with bovine cattle raising and other agricultural activities; therefore, agricultural and PV land uses would not be mutually exclusive. The Salinas Project would use a portion of the property that is currently unused land but would not dedicate the entire extent of the property to the solar project. The northern portion of the property, approximately 220 acres, would remain available for agricultural use. In addition, there are some projects in the area that support research, bio-engineering solutions, and alternatives for successful agricultural productivity, such as the additional structures or expansion projects proposed by Corteva Agriscience Puerto Rico, Inc.; Agriart, LLC; and Poultry Santa Fe, along with the composter proposed by Recycloponic Salinas. Because of the projects' compliance with all local laws and regulations regarding the use of farmland and low percentage (0.1 percent) of land area of prime or unique farmlands as a share the total in Puerto Rico, the project would not have significant cumulative impacts on soils and prime farmlands.

3.11.4 Land Use

Any proposed solar and storage project over 1 MW, including the Project analyzed in this EA and the other projects analyzed for cumulative impacts, must complete the CUB process. The CUB process requires consultation with all infrastructure and environmental agencies, as well as the public, and

neighboring notification. The Applicant completed the CUB process for Jobos on December 12, 2023 (Case Number: 2023-486785-CUB-008692). The CUB was approved for Salinas on May 16, 2024 (Case No. 2023-507196-CUB-009853). Public hearings are not required for PV projects being developed in Industrial zones. It is OGPe's determination to execute public hearings for projects developed in agricultural zones. Public hearings also require public and neighboring notification. Public notification was achieved through a newspaper and radio publication for the hearings. Neighboring notification was achieved through mail notification and through the installation of signs in front of the properties. Public hearings were conducted by OGPe, with participation from the community and different stakeholders, including Puerto Rico's Agronomist Association. The public hearing process was conducted by an examining officer, who referred a rights and facts determination to OGPe's Adjudicative Board for final determination.

Convergent Energy would construct a 100 MW solar PV array on 322 acres in the municipality of Coamo, on a site that is now active agricultural land and vacant agricultural land, along with 8.5 acres for three separate BESS sites. Infinigen Yabucoa solar would construct its 32.1 MW solar PV project on 183 acres, visible from surrounding roadways. The Yabucoa project would be adjacent to existing petrochemical facilities and therefore consistent with existing industrial uses in the area. The two 65 MW solar and 25 MW BESS proposed by Ciro Group represent another 309 acres of converted land uses to electricity generation. Programa Accesso de Solar and Project Hestia apply only to existing residential buildings and would not change land uses.

In addition to the 200 MW from solar projects on a total of 959 acres, an additional 822 acres of solar and storage are proposed by LPO's three other projects undergoing NEPA reviews, for a total of 1,782 acres changed from their past land uses to solar and storage. The Jobos site was zoned as industrial prior to AES involvement on that site. The projects all require approvals through CUB prior to construction. Because land use decisions, including development of solar PV and storage projects greater than 1 MW, must be explicitly approved by the agencies and municipalities within Puerto Rico, and the federal action of the potential loan guarantee requires permits and approvals, in this case including the CUB process, there would be no significant negative cumulative effects on land use.

3.11.5 Socioeconomics and Environmental Justice

The construction and operation of the Jobos Project and Salinas Project would be done near communities considered as a minority, socioeconomically disadvantaged, and environmentally burdened due to their proximity to the other local industrial facilities. The Jobos and Salinas Projects would not intensify the emission level of National Ambient Air Quality Standard criteria air pollutants during construction and operation. Furthermore, operation of alternate energy projects, including PV solar, has the objective of decreasing the island's dependency of fossil fuels and reducing the generation of GHG emissions while providing socioeconomic benefits by contributing to a more reliable electric distribution system. A more reliable electric grid is also conducive to improving business and investment opportunities in the Commonwealth. The projects undergoing active NEPA review by LPO would create thousands of temporary jobs altogether during the construction phase, which totals hundreds of workers on-site per day per project, in addition to indirect and induced jobs in supporting services and the economy. The total number of direct temporary construction jobs for Marahu is more 754 for both sites.

The production of energy from renewable sources under LPO's Energy Infrastructure Reinvestment Program would replace existing fossil fuel power generation. The projects would not represent an additional, disproportionate, or excessive burden on communities in the area. In contrast, the development of renewable energy sources would result in environmental and human health benefits by replacing fossil fuel energy sources and reducing the emissions of pollutants and GHGs. The displacement of these sources of pollution through the shift to renewable energy fulfills the central objective of EJ to reduce environmental pollution sources. In addition, it contributes to reducing the

effects of climate change, which disproportionately affect disadvantaged communities. In conclusion, the projects are expected to provide local benefits for EJ.

The Jobos Project and Salinas Project, when considered together with the identified projects in the region, would not have the potential to result in significant cumulative impacts on other resources due to the environmental protection measures implemented during construction and their contribution to stabilization and decarbonization of the electricity grid of Puerto Rico.

4.0 DRAFT FINDING

Based on this EA, DOE has determined that providing a federal loan guarantee to CFE to construct a PV electric generation facility and BESS at two sites in the municipalities of Guayama and Salinas will not have a significant effect on the human environment. Preparation of an environmental impact statement is therefore not required, and DOE is issuing this Finding of No Significant Impact.

This Finding of No Significant Impact should not be construed as a final decision about issuance of a loan guarantee.

_____ _____

Todd Stribley Date
LPO NEPA Compliance Officer
DOE Loan Programs Office

5.0 LIST OF AGENCIES CONTACTED

U.S. Fish and Wildlife Service

USDA Natural Resources Conservation Service

U.S. Environmental Protection Agency

Puerto Rico Office of the Governor

Puerto Rico State Historic Preservation Office

Puerto Rico Departmento de Recursos Naturales y Ambientales (DRNA)

Puerto Rico Electric Power Authority (PREPA)

Puerto Rico Office of Public and Private Partnerships (P3)

Puerto Rico Planning Board (PRPB)

Puerto Rico Oficina de Gerencia de Permisos (OGPe)

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APPENDIX A AGENCY CORRESPONDENCE

Table A-1: Summary of Agency Coordination

Organization	Contact Date(s)	Summary of Contact/Correspondence*
Puerto Rico Office of the Governor	12/18/2023	Request to identify PR agencies to involve in the NEPA process
	12/19/2023	Distribution List Input Received
	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
	01/23/2024	Request for PR agency contact information
	02/02/2024	Interagency Meeting – Virtual
	03/14/2024	Interagency Meeting – In Person
Puerto Rico State Historic Preservation Office (SHPO)	08/17/2023	Initial request for information
	09/15/2023	Virtual Coordination Meeting
	11/20/2023	**Request for concurrence of findings and consultation under Section 106 of the National Historic Preservation Act – Jobos and Salinas**
	01/11/2024	**SHPO concurrence received**
	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
Puerto Rico Departamento de Recursos Naturales y Ambientales	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
	02/02/2024	Interagency Meeting – Virtual
	03/14/2024	Interagency Meeting – In Person
EPA Region 2, Environmental Review Section	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
Puerto Rico Electric Power Authority (PREPA)	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
Public-Private Partnerships Authority (P3)	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
U.S. Fish and Wildlife Service (USFWS), Caribbean Ecological Services Field Office	11/22/2023	**Submission of Biological Assessments for Jobos and Salinas**
	01/18/2024	**USFWS comments on Salinas Biological Assessment**
	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
	02/12/2024	**Formal Consultation under Programmatic Biological Opinion – Salinas**
	02/20/2024	**Revised Biological Assessment – Salinas**
	02/28/2024	**USFWS comments on Jobos Biological Assessment**
	03/08/2024	**USFWS Concurrence Received – Salinas**
	03/15/2024	In-Person Coordination Meeting
	03/15/2024	**Formal Consultation under Programmatic Biological Opinion – Jobos Submitted**
	03/18/2024	**Revised Biological Assessment - Jobos**
	03/29/2024	**USFWS Concurrence Received – Jobos**
USDA Natural Resource Conservation Service	11/20/2023	Initial FPPA AD1006 Submission - Salinas
	11/24/2024	Supporting data for Salinas AD1006 submitted

Organization	Contact Date(s)	Summary of Contact/Correspondence*
	12/07/2023	FPPA AD1006 Form Submission
	12/15/2023	Coordination Meeting
	12/22/2023	AD1006 Comments Received – Both sites
	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
	01/29/2024	Revised FPPA AD1006 Submission for Jobos and Salinas
	02/06/2024	Guidance Received from NRCS on AD1006 ratings for Jobos and Salinas
	02/27/2024	NRCS Returns AD1006 Forms for Jobos and Salinas
	03/05/2024	**Completed FPPA AD1006 Form Submission**
	03/18/2024	In-Person Coordination Meeting
Secretaría Auxiliar de Permisos, Endosos y Servicios Especializados, Departamento de Recursos Naturales y Ambientales	01/22/2024	**Notice of Intent to Prepare an Environmental Assessment**
	03/14/2024	In-Person Coordination meeting
Unidad de Zona Costanera, Oficina de Geología e Hidrogeología, Junta de Planificación	02/02/2024	Federal Consistency Review Process Meeting
	02/05/2024	Federal Consistency Review Instructions Received
	03/06/2024	**Consistency Certification Applications submitted for Jobos and Salinas**
	04/29/2024	**Federal Consistency Certification Approved for Jobos**

*Correspondence in **bold text** is included in Appendix A.

Department of Energy
Washington, DC 20585

January 22, 2024

Omar A. Vega-Albino
Senior Advisor to Energy Affairs
Office of the Governor
PO Box 9020082
San Juan, PR 00902-0082

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Mr. Vega-Albino,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment (EIR) in the United States and U.S. territories.

DOE is evaluating whether to provide a federal loan guarantee to Clean Flexible Energy, LLC (the Applicant), an affiliate of AES Corporation, to support two proposed solar photovoltaic (PV) installations in the municipalities of Salinas and Guayama, Puerto Rico. The PV installations will provide electricity to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The decision to prepare an EA for the Project was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

The purpose and need for agency action is to comply with the DOE mandate under Title XVII of the EPAct to select projects for loan guarantees that are consistent with the goals of the Act. The DOE LPO has determined that the Project as proposed by the Applicant, is eligible pursuant to Section 1706 of EPAct and is using the NEPA process to assist in determining whether to issue a loan guarantee to Clean Flexible Energy LLC to support the development of the Project. A goal of DOE's financial assistance for EIR Projects is to support the construction of and startup of projects and energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases.

The Applicant proposes to construct the project at two sites. The "Jobos" site is located on property owned by the Puerto Rican Industrial Development Company (PRIDCO) on PR-7707 and PR-3, Barrio Jobos, Guayama, Puerto Rico 00784. Jobos includes a 120 MW photovoltaic (PV) electricity generation facility covering 318 acres, an offsite electrical substation, an onsite 100 MW battery energy storage system, an offsite 1,000 meter transmission line of 115 kilovolts connecting to the substation, onsite internal access roads for the site, and an onsite control room with administrative office.

The second location is the "Salinas" site. Salinas is located is located on private properties between the Aguirre and Jobos neighborhoods of the municipalities of Salinas and Guayama, respectively. The Project will be located between highways PR-53 (to the north), PR-3 (to the south), PR-713 (to the east), and PR-706 (to the west). Salinas consists of a 240 MW PV facility on 641 acres, an offsite electrical substation, an offsite 4,717 meter 115 kilovolt transmission line connecting to the substation, onsite internal access roads for the site, and an onsite control room with administrative office.

The two sites are shown in the Project Location Map (Figure 1), Jobos Site Plan (Figure 2), and Salinas Site Plan (Figure 3), attached.

The DOE NEPA regulations provide for the notification of host states and territories of NEPA determinations and for the opportunity for host states and territories to review EAs prior to DOE approval. This process is intended to improve coordination and to facilitate early and open communication.

If you or your staff would like to receive further information concerning this project or DOE's NEPA process, please contact me at 240-457-7973 or email at LPO_Environmental@hq.doe.gov.

Respectfully,

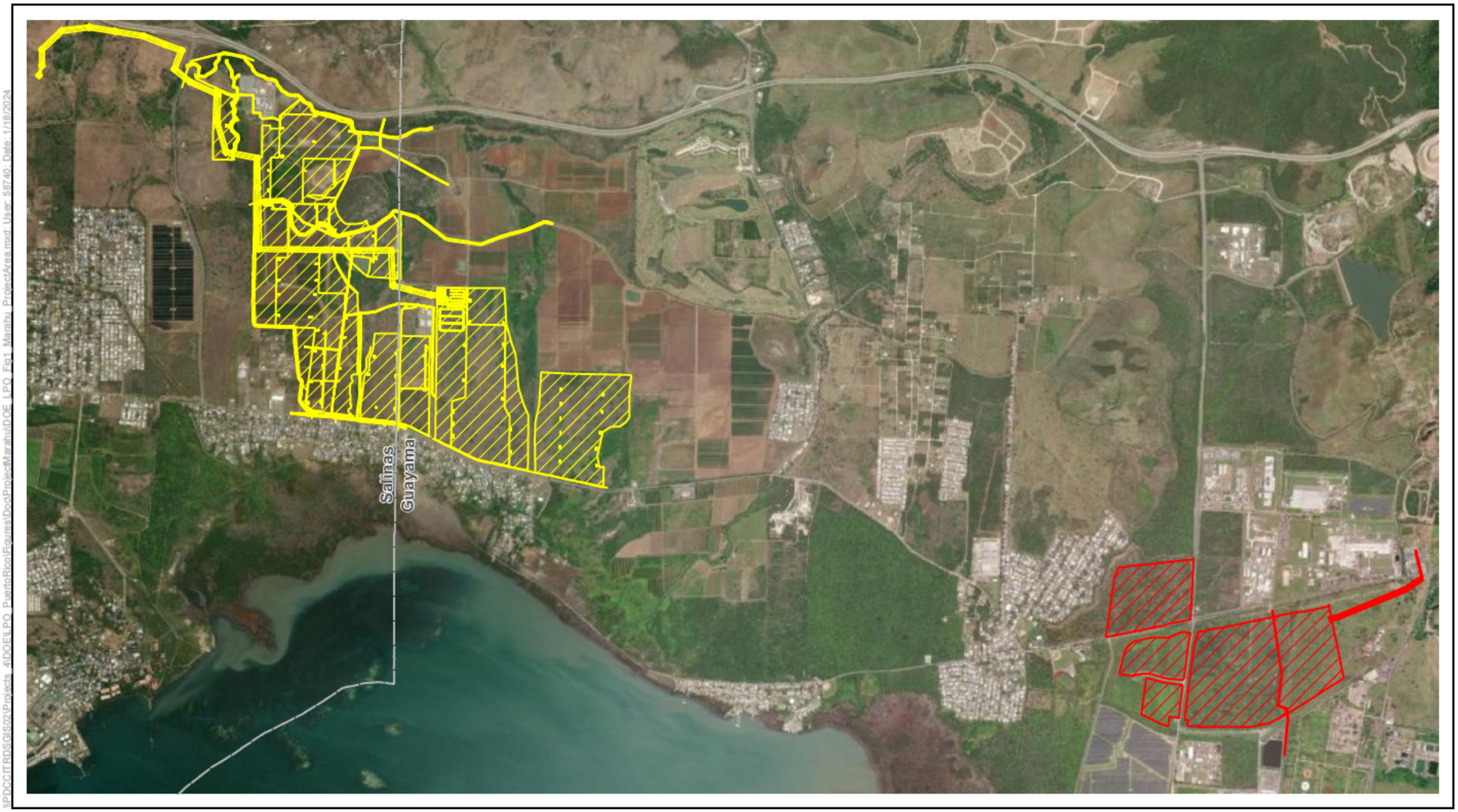
David Oster

Digitally signed by David Oster
Date: 2024.01.22 08:52:12 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:
Figure 1: Project Location Map
Figure 2: Jobos Site Plan
Figure 3: Salinas Site Plan

CC:
Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Dave Kleusner, U.S. Environmental Protection Agency
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
Carlos R. Fajardo Verdejo, Departamento de Recursos Naturales y Ambientales
Milagros M. Navon Rivera, Departamento de Recursos Naturales y Ambientales
Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
Ernesto-Rivera, Puerto Rico Public Private Partnerships Authority
Edwin Muniz, U.S. Fish and Wildlife Service
Manual Matos, Natural Resource Conservation Service
Carlos Rubio-Canela, State Historic Preservation Office
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales



Jobos Site Boundary
Salinas Site Boundary
Municipality Boundaries

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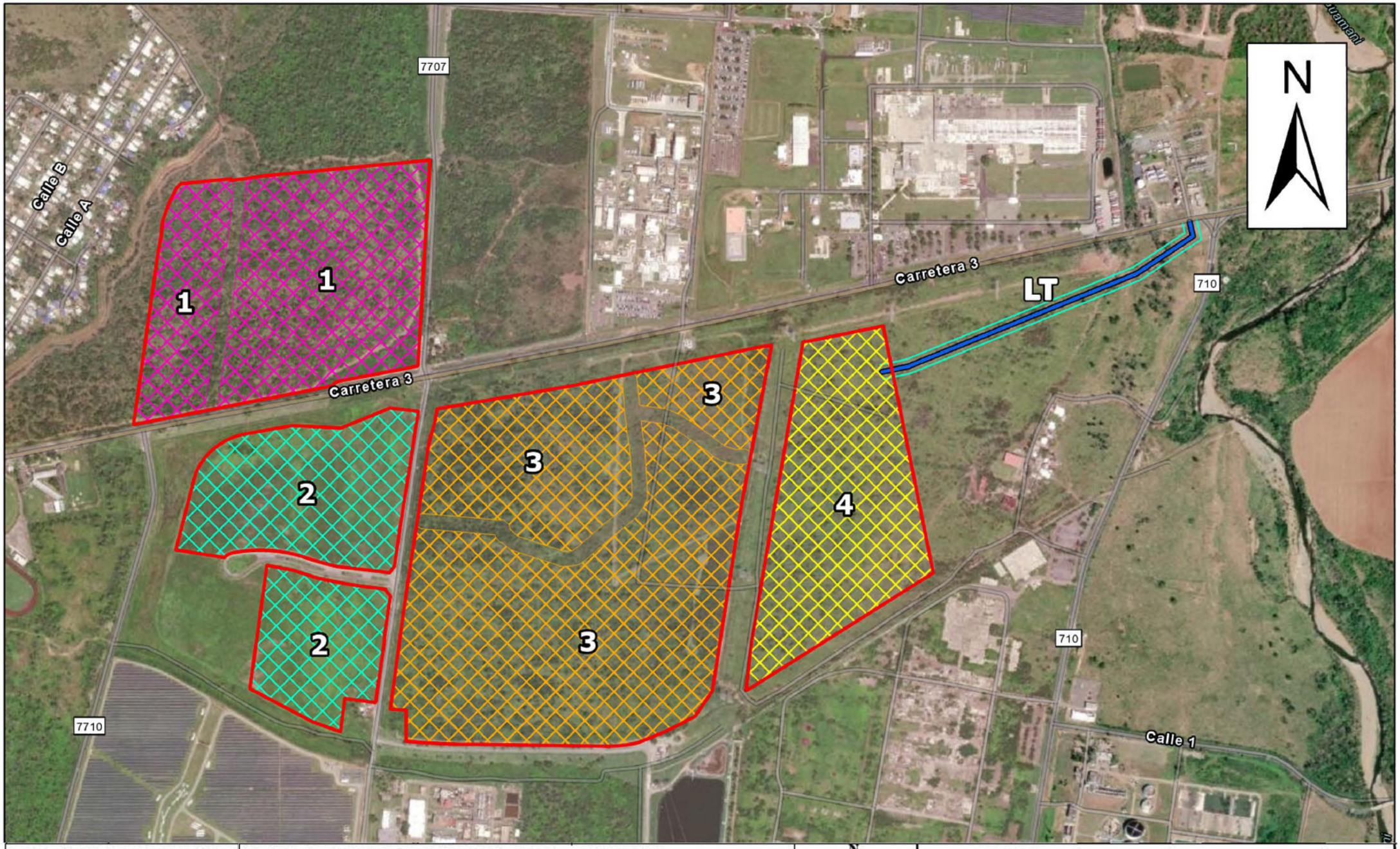
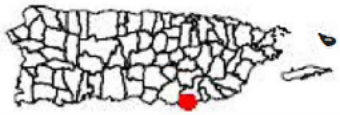
Figure 1. Department of Energy, Loan Programs Office
Project Marahu, Jobos and Salinas Sites - Project Locations





Site Plan

Jobos PV, Guayama, P.R.

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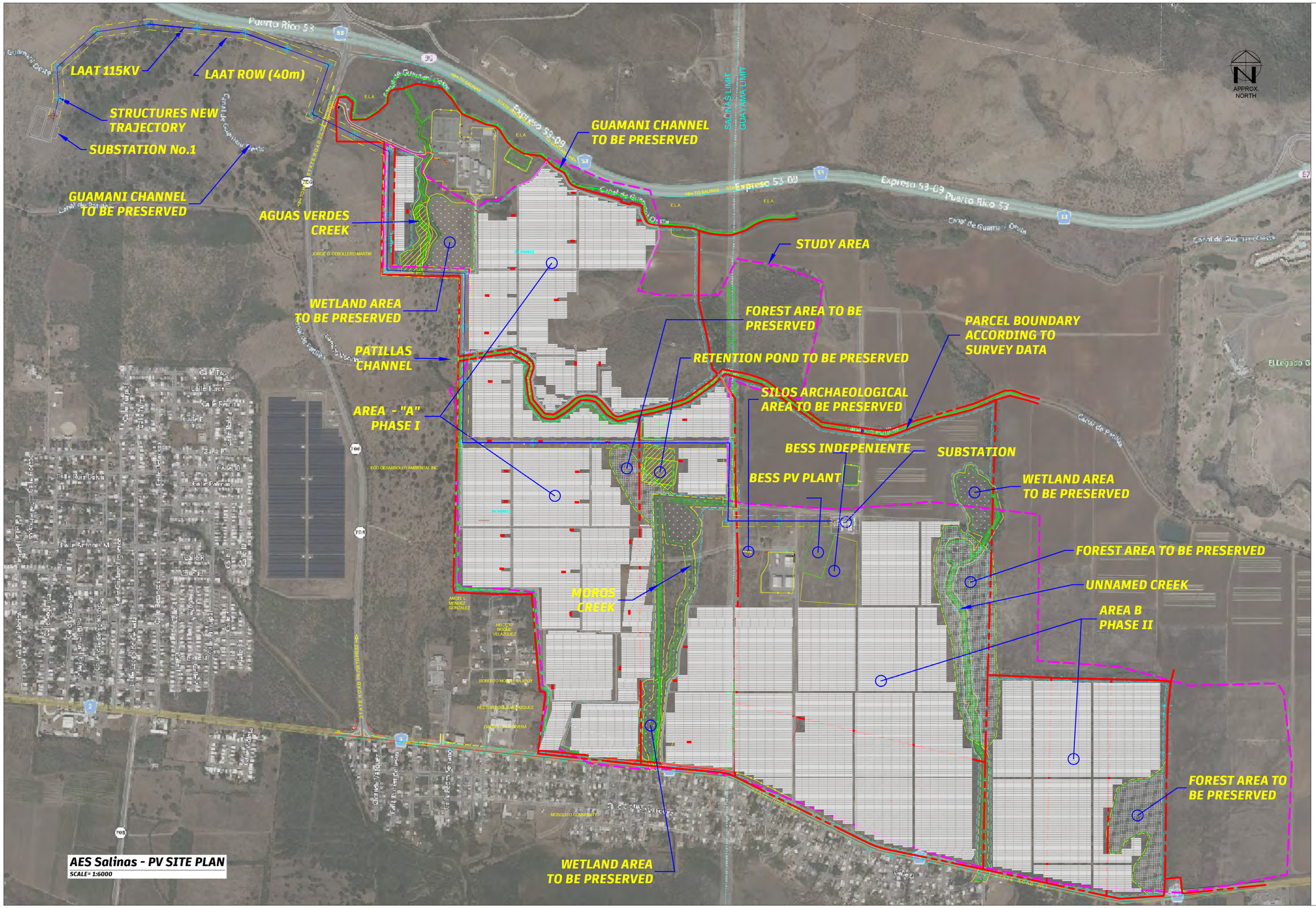
Date: 5/13/2021

PMG AND ASSOCIATES



CERTIFICO QUÉ SO Y EL PROFESIONAL QUE CONFECCIONÓ Y/O DISEÑÓ Y/O PREPARO ESTOS PLANOS Y LAS ESPECIF ICACIONES COMPLEMENTARIAS. TAMBIÉN CERTIFICO QUE ENTIENDO QUE DICHOS PLANOS Y ESPECIFICACIONES CUMPLEN CON LAS DISPOSICIONES APLICABLES DE REGLAMENTO CONJUNTO Y LAS DISPOSICIONES APLICABLES DE LOS REGLAMENTOS Y CÓDIGOS DE CONSTRUCCIÓN VIGENTES DE LAS AGEN CIAS, JUNTAS REGLAMENTADORAS O CORPORACIONES PÚBLICAS CON JURISDICCIÓN. RECONOZCO QUE CUALQUIER DECLARACIÓN FALSA O FALSIFICACIÓN DE LOS HECHOS QUE SE HAYA PRODUCIDO POR DESCONOCIMIENTO O POR NEGLIGENCIA YA SEA POR MI, MIS AGENTES O EMPLEADOS, O POR OTRAS PERSONAS CON MI CONOCIMIENTO, ME HACEN RESPONSABLE DE CUALQUIER ACCIÓN JUDICIAL Y DISCIPLINARIA POR LA OGPE.

PMG AND ASSOCIATES
#12 ACOSTA CAGUAS,PR 00726
787.643.4761 INFO@PMGGROUPLLC.COM

AES-Salinas -PV
Salinas, Puerto Rico

PLOT DATE AND TIME:8/21/2023 6:03 PM

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SCALE: AS NOTED

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AES-Salinas PV SITE PLAN

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Department of Energy
Washington, DC 20585

January 22, 2024

Carlos Rubio-Cancela
State Historic Preservation Officer
Office of the Governor
State Historic Preservation Office
PO Box 9023935, San Juan, PR 00902-3935

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Carlos Rubio-Cancela,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment (EIR) in the United States and U.S. territories.

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The purpose and need for agency action is to comply with the DOE mandate under Title XVII of the EPAct to select projects for loan guarantees that are consistent with the goals of the Act. The DOE LPO has determined that the Project as proposed by the Applicant, is eligible pursuant to Section 1706 of EPAct and is using the NEPA process to assist in determining whether to issue a loan guarantee to Clean Flexible Energy LLC to support the development of the Project. A goal of DOE's financial assistance for EIR Projects is to support the construction of and startup of projects and energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases.

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Respectfully,

David Oster

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Date: 2024.01.22 09:00:18 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:
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CC:
Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Omar A. Vega-Albino, Office of the Governor
Dave Kleusner, U.S. Environmental Protection Agency
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
Carlos R. Fajardo Verdejo, Departamento de Recursos Naturales y Ambientales
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Manual Matos, Natural Resource Conservation Service
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Department of Energy
Washington, DC 20585

January 22, 2024

Hon. Rafeal Maldonado
C/O Anaís Rodríguez Vega
Secretary
Departamento de Recursos Naturales y Ambientales
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926"

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

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David Oster

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Date: 2024.01.22 08:52:53 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

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Manual Matos, Natural Resource Conservation Service
Carlos Rubio-Canela, State Historic Preservation Office
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Department of Energy
Washington, DC 20585

January 22, 2024

Milagros M. Navon Rivera
Oficiale de Informacion
Departamento de Recursos Naturales y Ambientales
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926"

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Milagros M. Navon Rivera,

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Respectfully,

David Oster

Digitally signed by David Oster
Date: 2024.01.22 08:54:37 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:
Figure 1: Project Location Map
Figure 2: Jobos Site Plan
Figure 3: Salinas Site Plan

CC:
Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Omar A. Vega-Albino, Office of the Governor
Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
Carlos R. Fajardo Verdejo, Departamento de Recursos Naturales y Ambientales
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Carlos Rubio-Cancela, State Historic Preservation Office
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Department of Energy
Washington, DC 20585

January 22, 2024

Lcdo. Samuel Acosta Camacho
Oficiale de Informacion
Departamento de Recursos Naturales y Ambientales
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Mr. Samuel Acosta Camacho,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment (EIR) in the United States and U.S. territories.

DOE is evaluating whether to provide a federal loan guarantee to Clean Flexible Energy, LLC (the Applicant), an affiliate of AES Corporation, to support two proposed solar photovoltaic (PV) installations in the municipalities of Salinas and Guayama, Puerto Rico. The PV installations will provide electricity to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The decision to prepare an EA for the Project was made in accordance with the requirements of the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

The purpose and need for agency action is to comply with the DOE mandate under Title XVII of the EPAct to select projects for loan guarantees that are consistent with the goals of the Act. The DOE LPO has determined that the Project as proposed by the Applicant, is eligible pursuant to Section 1706 of EPAct and is using the NEPA process to assist in determining whether to issue a loan guarantee to Clean Flexible Energy LLC to support the development of the Project. A goal of DOE's financial assistance for EIR Projects is to support the construction of and startup of projects and energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases.

The Applicant proposes to construct the project at two sites. The "Jobos" site is located on property owned by the Puerto Rican Industrial Development Company (PRIDCO) on PR-7707 and PR-3, Barrio Jobos, Guayama, Puerto Rico 00784. Jobos includes a 120 MW photovoltaic (PV) electricity generation facility covering 318 acres, an offsite electrical substation, an onsite 100 MW battery energy storage system, an offsite 1,000 meter transmission line of 115 kilovolts connecting to the substation, onsite internal access roads for the site, and an onsite control room with administrative office.

The second location is the "Salinas" site. Salinas is located is located on private properties between the Aguirre and Jobos neighborhoods of the municipalities of Salinas and Guayama, respectively. The Project will be located between highways PR-53 (to the north), PR-3 (to the south), PR-713 (to the east), and PR-706 (to the west). Salinas consists of a 240 MW PV facility on 641 acres, an offsite electrical substation, an offsite 4,717 meter 115 kilovolt transmission line connecting to the substation, onsite internal access roads for the site, and an onsite control room with administrative office.

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Respectfully,

David Oster
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David Oster
Environmental Protection Specialist
Loan Programs Office

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Department of Energy
Washington, DC 20585

January 22, 2024

Carlos R. Fajardo Verdejo
Oficiale de Informacion
Departamento de Recursos Naturales y Ambientales
San José Industrial Park
1375 Ave Ponce de León
San Juan, PR 00926"

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Carlos R. Fajardo Verdejo,

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Loan Programs Office

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Manual Matos, Natural Resource Conservation Service
Carlos Rubio-Cancela, State Historic Preservation Office
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Department of Energy
Washington, DC 20585

January 22, 2024

Dave Kleusner
Acting Director
U.S. Environmental Protection Agency
Region 2 Environmental Review Section
290 Broadway, 25th Floor
New York, NY 10007-1866

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Mr. Kleusner,

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David Oster

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David Oster
Environmental Protection Specialist
Loan Programs Office

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Sheila A. Torres-Sterling, Puerto Rico Public-Private Partnerships Authority
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Carlos Rubio-Cancela, State Historic Preservation Office
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Department of Energy
Washington, DC 20585

January 22, 2024

Jorge L. Cotto-Perez
Puerto Rico Electric Power Authority

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Jorge L. Cotto-Perez,

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Environmental Protection Specialist
Loan Programs Office

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Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Department of Energy
Washington, DC 20585

January 22, 2024

Sheila A. Torres-Sterling
Public-Private Partnerships Authority (P3)

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Sheila A. Torres-Sterling,

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Washington, DC 20585

January 22, 2024

Ernesto Rivera
Public-Private Partnerships Authority (P3)

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Dear Ernesto Rivera,

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Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales

Department of Energy
Washington, DC 20585

January 22, 2024

Edwin Muniz
Field Supervisor
U.S. Fish and Wildlife Service
Caribbean Ecological Services Field Office
Luchetti Industrial Park 290 Calle B, Bayamon, PR 00961

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Mr. Muniz,

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The purpose and need for agency action is to comply with the DOE mandate under Title XVII of the EPAct to select projects for loan guarantees that are consistent with the goals of the Act. The DOE LPO has determined that the Project as proposed by the Applicant, is eligible pursuant to Section 1706 of EPAct and is using the NEPA process to assist in determining whether to issue a loan guarantee to Clean Flexible Energy LLC to support the development of the Project. A goal of DOE's financial assistance for EIR Projects is to support the construction of and startup of projects and energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases.

The Applicant proposes to construct the project at two sites. The "Jobos" site is located on property owned by the Puerto Rican Industrial Development Company (PRIDCO) on PR-7707 and PR-3, Barrio Jobos, Guayama, Puerto Rico 00784. Jobos includes a 120 MW photovoltaic (PV) electricity generation facility covering 318 acres, an offsite electrical substation, an onsite 100 MW battery energy storage system, an offsite 1,000 meter transmission line of 115 kilovolts connecting to the substation, onsite internal access roads for the site, and an onsite control room with administrative office.

The second location is the "Salinas" site. Salinas is located is located on private properties between the Aguirre and Jobos neighborhoods of the municipalities of Salinas and Guayama, respectively. The Project will be located between highways PR-53 (to the north), PR-3 (to the south), PR-713 (to the east), and PR-706 (to the west). Salinas consists of a 240 MW PV facility on 641 acres, an offsite electrical substation, an offsite 4,717 meter 115 kilovolt transmission line connecting to the substation, onsite internal access roads for the site, and an onsite control room with administrative office.

The two sites are shown in the Project Location Map (Figure 1), Jobos Site Plan (Figure 2), and Salinas Site Plan (Figure 3), attached.

The DOE NEPA regulations provide for the notification of host states and territories of NEPA determinations and for the opportunity for host states and territories to review EAs prior to DOE approval. This process is intended to improve coordination and to facilitate early and open communication.

If you or your staff would like to receive further information concerning this project or DOE's NEPA process, please contact me at 240-457-7973 or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster

Digitally signed by David Oster
Date: 2024.01.22 09:01:26 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:
Figure 1: Project Location Map
Figure 2: Jobos Site Plan
Figure 3: Salinas Site Plan

CC:
Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Omar A. Vega-Albino, Office of the Governor
Dave Kleusner, U.S. Environmental Protection Agency
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
Carlos R. Fajardo Verdejo, Departamento de Recursos Naturales y Ambientales
Milagros M. Navon Rivera, Departamento de Recursos Naturales y Ambientales
Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
Ernesto-Rivera, Puerto Rico Public Private Partnerships Authority
Manual Matos, Natural Resource Conservation Service
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales
Carlos Rubio-Canela, State Historic Preservation Office

Department of Energy
Washington, DC 20585

January 22, 2024

Lourdes Mena
Acting Field Supervisor
U.S. Fish and Wildlife Service
Caribbean Ecological Services Field Office
Luchetti Industrial Park 290 Calle B, Bayamon, PR 00961

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Lourdes Mena,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment (EIR) in the United States and U.S. territories.

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The purpose and need for agency action is to comply with the DOE mandate under Title XVII of the EPAct to select projects for loan guarantees that are consistent with the goals of the Act. The DOE LPO has determined that the Project as proposed by the Applicant, is eligible pursuant to Section 1706 of EPAct and is using the NEPA process to assist in determining whether to issue a loan guarantee to Clean Flexible Energy LLC to support the development of the Project. A goal of DOE's financial assistance for EIR Projects is to support the construction of and startup of projects and energy technologies that avoid, reduce, or sequester anthropogenic emission of greenhouse gases.

The Applicant proposes to construct the project at two sites. The "Jobos" site is located on property owned by the Puerto Rican Industrial Development Company (PRIDCO) on PR-7707 and PR-3, Barrio Jobos, Guayama, Puerto Rico 00784. Jobos includes a 120 MW photovoltaic (PV) electricity generation facility covering 318 acres, an offsite electrical substation, an onsite 100 MW battery energy storage system, an offsite 1,000 meter transmission line of 115 kilovolts connecting to the substation, onsite internal access roads for the site, and an onsite control room with administrative office.

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If you or your staff would like to receive further information concerning this project or DOE's NEPA process, please contact me at 240-457-7973 or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster

Digitally signed by David Oster
Date: 2024.01.22 11:03:32 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:
Figure 1: Project Location Map
Figure 2: Jobos Site Plan
Figure 3: Salinas Site Plan

CC:
Hon. Rafeal Maldonado, Departamento de Recursos Naturales y Ambientales
Omar A. Vega-Albino, Office of the Governor
Dave Kleusner, U.S. Environmental Protection Agency
Lcdo. Samuel Acosta Camacho, Departamento de Recursos Naturales y Ambientales
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Milagros M. Navon Rivera, Departamento de Recursos Naturales y Ambientales
Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
Ernesto-Rivera, Puerto Rico Public Private Partnerships Authority
Manual Matos, Natural Resource Conservation Service
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales
Carlos Rubio-Canela, State Historic Preservation Office

Department of Energy
Washington, DC 20585

January 22, 2024

Manual Matos-Rodriguez
State Soil Scientist for the Caribbean
Natural Resource Conservation Service
654 Munoz Rivera Ave, Suite 604, San Juan PR 00918

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Mr. Matos,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment (EIR) in the United States and U.S. territories.

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Respectfully,

David Oster
Digitally signed by David Oster
Date: 2024.01.22 09:02:10 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

Attachments:
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Figure 2: Jobos Site Plan
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CC:
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Edwin Muniz, U.S. Fish and Wildlife Service
Ivelisse Espinosa, Departamento de Recursos Naturales y Ambientales
Carlos Rubio-Canela, State Historic Preservation Office

Department of Energy
Washington, DC 20585

January 22, 2024

Ivelisse Espinosa
Secretaría Auxiliar de Permisos
Endosos y Servicios Especializados
Departamento de Recursos Naturales y Ambientales

SUBJECT: The U.S. Department of Energy's (DOE's) Intent to Prepare an Environmental Assessment (EA) for a Proposed Federal Loan Guarantee to Clean Flexible Energy LLC for the construction of a 240 megawatt (MW) and 120 MW Solar Photovoltaic Installations

Dear Mr. Ivelisse Espinosa,

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Respectfully,

David Oster

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Date: 2024.01.22 09:04:13 -05'00'

David Oster
Environmental Protection Specialist
Loan Programs Office

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Jorge L. Cotto-Perez, Puerto Rico Electric Power Authority
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Edwin Muniz, U.S. Fish and Wildlife Service
Manual Matos, Natural Resource Conservation Service
Carlos Rubio-Canela, State Historic Preservation Office

Department of Energy
Washington, DC 20585

November 20, 2023

Migual Bonini
Senior Historic Property Specialist
State Historic Preservation Office
Office of the Governor
P.O. Box 9023935
San Juan, P.R. 00902-3935

SUBJECT: U.S. Department of Energy, Project Marahu Jobos Site, Section 106 Consultation

Dear Mr. Bonini,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment in the United States and U.S. territories. Clean Flexible Energy, LLC (the Applicant) is proposing to construct Solar Photovoltaic Installations generating up to 360 megawatts (MW) at two sites (Jobos and Salinas) in the Salinas and Guayama Municipalities of Puerto Rico, collectively referred to as Project Marahu. This letter is regarding the Project Marahu Jobos Site (the Project). DOE has determined that Project Marahu will be replacing "energy infrastructure" (as defined in Section 1706 of Title XVII) that has ceased operations in Puerto Rico, and is therefore eligible to apply for a loan guarantee from LPO under Title XVII.

The purpose of this letter is to consult with the Puerto Rico State Historic Preservation Office (SHPO) under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 United States Code [U.S.C.] 306108), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, "Protection of Historic Properties," and to present DOE's Finding of No Historic Properties Affected (Finding) for this undertaking, pursuant to 36 CFR § 800.4(d)(l). The Puerto Rico SHPO Section 106 Project Delivery Control Form is included as Attachment 1.

This Section 106 consultation request is being coordinated with DOE's review of the Project pursuant the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

Description of the Project and Location

The Project consists of the following components:

- Photovoltaic facility with a capacity of 120 MW peak (80 MW nominal) to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA).

- Inverter Equipment, photovoltaic panel support structures (ground-mounted), photovoltaic panels, and all equipment necessary for the operation of the photovoltaic power plant.
- Electrical substation, transformers, and all necessary equipment for the proper operation of the substation.
- Battery storage system and all equipment necessary for the proper operation of the storage system.
- Installation of a 115 kilovolt interconnection line of approximately 1,000 linear meters to be connected to the Jobos TC Substation to the northeast of the Project.
- Internal roads necessary for the operation and maintenance of the system.
- Control room and administrative office.

The Project is located within properties of the Puerto Rican Industrial Development Company (PRIDCO) on PR-7707 and PR-3, Barrio Jobos, Guayama, Puerto Rico 00784. The Project area is depicted in Attachment 2 (Location Map, Topographic) and Attachment 3 (Site Plan, Aerial). As depicted in Attachment 3, the Project will be developed within four main areas as follows:

1. Northwest parcel (Jobos 1), located northwest of PR-3 and PR-7707; cadastral number (Tax ID) 441-000-003-07.
2. Southwest parcels (Jobos 2A and 2B), located southwest of PR-3 and PR-7707; cadastral number 441-000-003-09.
3. East parcels (Jobos 3 and Jobos 4), located east of PR-7707; cadastral numbers 441-000-003-07 and 441-000-004-13.
4. A longitudinal segment east of Jobos 4 where the interconnection line and its corresponding easement is proposed; cadastral number 441-000-004-06.

Description of the Undertaking and Area of Potential Effects

DOE's undertaking is the proposed federal loan guarantee to the Applicant to construct the Project Marahu Jobos Site, which includes the installation of 120 MW solar photovoltaic system on 309 acres in the Jobos and Pozo Hondo Wards in the Municipality of Guayama. As described above, the Project also includes a battery energy storage system, electrical substation, an approximately 1,000-meter interconnection line, and other equipment and facilities necessary for operation and maintenance of the site.

As defined in the Section 106 regulations (36 CFR § 800.16(d)), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The dimensions of the APE are influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. The APE for this undertaking is defined as the Project limits of disturbance (LOD) within the Site Area shown in Attachments 2 and 3. A detailed schematic design is included in Attachment 4.

Description of the Steps Taken to Identify Historic Properties

The Applicant completed studies compliant with the provisions of Law 112 and Article 6 of Regulation 8932. The archaeological Phase 1-A/1-B studies of the Jobos Site (Attachment 5) and Interconnection Line (Attachment 6) included archival research, a visual survey of the Project area, and subsurface investigation surveys. This work followed the guidelines for archaeological investigations of the SHPO and the Regulation for Filing and Archaeological Evaluation of Construction and Development Projects

of the Council for the Protection of Terrestrial Archaeological Heritage of Puerto Rico, assigned to the Institute of Puerto Rican Culture (ICP).

The studies identified historic surface features including concrete irrigation channels, a cement pond wall, a crane, and evidence of demolished structures. The study also found limited subsurface scatters of brick and shell that do not retain stratigraphic or depositional integrity, and therefore, were not classified as archaeological sites. None of the identified cultural resources are recommended eligible for listing on the National Register of Historic Places and are therefore not considered historic properties as defined in 36 CFR 800.16(l). However, a 15-meter avoidance buffer was recommended to preserve the historic concrete irrigation channel within the Jobos Site, which the Applicant has incorporated into their site plan (see Attachment 3) and schematic designs (see Attachment 4). Furthermore, archaeological monitoring during construction is recommended in the vicinity of the concrete irrigation canal identified during the field survey of the Interconnection Line to ensure the resource is protected from potential physical effects. These avoidance and monitoring measures will ensure the Project will not affect these cultural resources, even though they may not be considered historic properties under Section 106.

In a letter dated September 3, 2021, the ICP Historical Building Heritage Program stated it has no objection to the proposed Project. In a letter dated October 18, 2022, the ICP Archeology and Ethnohistory Program authorized the proposed Project subject to the provisions of Law 112 regarding the suspension of development activities and notification of the ICP in the event of inadvertent discovery of cultural resources during construction. The Applicant was also issued authorization from ICP on May 8, 2023, through the Environmental Recommendation (REA) process, in a letter which stated that the Project would have a low probability of encountering archaeological resources. The ICP authorization letters are provided in Attachment 7.

DOE is currently preparing an Environmental Assessment (EA) pursuant to NEPA to consider the potential environmental consequences of approving the proposed Project. The Section 106 consultation record and Finding for this undertaking will inform the analysis of impacts on cultural resources in the EA. The Draft EA will be published for a public review and comment period. DOE will consider all public comments concerning historic properties, the scope of historic property identification efforts, or any other topic relevant to the Section 106 review of the undertaking that is the subject of this Finding, and incorporate responses to those comments, as appropriate, in the Final EA.

The Basis for the Determination of No Historic Properties Affected

This Finding is based on a review of existing and available information conducted by DOE LPO, including the Phase 1-A/1-B studies of the Project area, recommended avoidance and monitoring measures, consultation with SHPO and ICP, and conclusions drawn from this information.

The undertaking includes the proposed federal loan guarantee to Clean Flexible Energy, LLC to construct the Project Marahu Jobos Site and interconnection line. The identification effort did not result in the identification of historic properties as defined in 36 CFR 800.16(l). The incorporation of avoidance measures into the Project design and the implementation of archaeological monitoring during construction of the interconnection line will ensure that the proposed undertaking will not affect historic properties. Therefore, no historic properties will be affected for the undertaking of providing a federal loan guarantee to the Applicant for construction of the Project Marahu Jobos Site, consistent with 36 CFR § 800.4(d)(1).

Requesting your Concurrence and Next Steps

As part of the Section 106 process, we respectfully request your concurrence that the undertaking would not affect any historic properties. We look forward to consulting with your office throughout the Section 106 process. If you have any questions or would like to discuss this project further, please contact me in the DOE Loan Programs Office at 240-457-7973, or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster

Digitally signed by David Oster
Date: 2023.11.20 10:58:23 -05'00'

David A. Oster
NEPA Document Manager
Loan Programs Office

Attachments:

Attachment 1: Section 106 Delivery Control Form
Attachment 2: Location Map, Topographic
Attachment 3: Site Plan, Aerial
Attachment 4: Site Schematic Design
Attachment 5: Archaeological Survey Report, Jobos Site
Attachment 6: Archaeological Survey Report, Jobos Interconnection Line
Attachment 7: ICP Authorization Letters

Department of Energy
Washington, DC 20585

November 20, 2023

Migual Bonini
Senior Historic Property Specialist
State Historic Preservation Office
Office of the Governor
P.O. Box 9023935
San Juan, P.R. 00902-3935

SUBJECT: U.S. Department of Energy, Project Marahu Salinas Site, Section 106 Consultation

Dear Mr. Bonini,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects and authorizes the Secretary of Energy to make loan guarantees available for those projects. Under Title XVII, the Department of Energy (DOE) Loan Programs Office (LPO) may provide loan guarantees for projects that support clean energy deployment and energy infrastructure reinvestment in the United States and U.S. territories. Clean Flexible Energy, LLC (the Applicant) is proposing to construct Solar Photovoltaic Installations generating up to 360 megawatts (MW) at two sites (Jobos and Salinas) in the Salinas and Guayama Municipalities of Puerto Rico, collectively referred to as Project Marahu. This letter is regarding the Project Marahu Salinas Site (the Project). DOE has determined that Project Marahu will be replacing "energy infrastructure" (as defined in Section 1706 of Title XVII) that has ceased operations in Puerto Rico, and is therefore eligible to apply for a loan guarantee from LPO under Title XVII.

The purpose of this letter is to consult with the Puerto Rico State Historic Preservation Office (SHPO) under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (54 United States Code [U.S.C.] 306108), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, "Protection of Historic Properties," and to present DOE's Finding of No Historic Properties Affected (Finding) for this undertaking, pursuant to 36 CFR § 800.4(d)(l). The Puerto Rico SHPO Section 106 Project Delivery Control Form is included as Attachment 1.

This Section 106 consultation request is being coordinated with DOE's review of the Project pursuant the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR Parts 1500-1508), and DOE's implementing procedures for compliance with NEPA (10 CFR Part 1021).

Description of the Project and Location

The Project consists of the following components:

- Photovoltaic facility with a 240 MW capacity to provide renewable energy to the distribution network of the Puerto Rico Power Authority (PREPA).

- Inverter Equipment, photovoltaic panel support structures, photovoltaic panels, and all equipment necessary for the operation of the photovoltaic power plant.
- Electrical substation, transformers, and all necessary equipment for the proper operation of the substation.
- Battery storage system and all equipment necessary for the proper operation of the 100 MW storage system.
- Installation of a 115 kilovolt interconnection line of approximately 4,717 linear meters to be connected to a private substation northwest of the photovoltaic facility.
- Internal roads necessary for the operation and maintenance of the system.
- Administrative office.

The Project is located between the Aguirre and Jobos neighborhoods of the municipalities of Salinas and Guayama, respectively. The Project area is depicted in Attachment 2 (Location Map, Topographic) and Attachment 3 (Site Plan, Aerial). The Project will be located between highways PR-53 (to the north), PR-3 (to the south), PR-713 (to the east), and PR-706 (to the west). The Project will be developed within eight (8) parcels with the following cadastral numbers (Tax IDs): 418-000-003-16-000, 418-000-009-11-000, 418-000-009-12-000, 418-000-009-13-000, 418-000-009-06-901, 418-000-010-01-901, 418-000-010-04-000, and 418-000-010-05-000. These parcels cover an area of approximately 1,000 acres. The interconnection line and its corresponding easement includes parcels cadastral numbers 418-000-010-04-000 and 418-000-010-05-000, occupying an area of approximately 19.4 acres.

Description of the Undertaking and Area of Potential Effects

DOE's undertaking is the proposed federal loan guarantee to the Applicant to construct the Project Marahu Salinas Site, which includes the installation of 240 MW solar photovoltaic system on approximately 1,000 acres in the Aguirre Ward in the Municipality of Salinas. As described above, the Project also includes a battery energy storage system, electrical substation, an approximately 4,717-meter interconnection line, and other equipment and facilities necessary for operation and maintenance of the site.

As defined in the Section 106 regulations (36 CFR § 800.16(d)), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The dimensions of the APE are influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking. The APE for this undertaking is defined as the Project limits of disturbance (LOD) within the Site Area shown in Attachments 2 and 3. A detailed schematic design is included in Attachment 4.

Description of the Steps Taken to Identify Historic Properties

The Applicant completed studies compliant with the provisions of Law 112 and Article 6 of Regulation 8932. The archaeological Phase 1-A/1-B studies of the Salinas Site (Attachment 5) and Interconnection Line (Attachment 6) included archival research, review of recent prior archaeological studies in the Project area, a visual survey of the Project area, and subsurface investigation surveys. This work followed the guidelines for archeological investigations of the SHPO and the Regulation for Filing and Archaeological Evaluation of Construction and Development Projects of the Council for the Protection of Terrestrial Archaeological Heritage of Puerto Rico, assigned to the Institute of Puerto Rican Culture (ICP).

The studies identified the historic Guamaní and Patillas irrigation canals, as well as four mid-twentieth century silos historically used for cattle grazing. The irrigation canals are recommended eligible for inclusion in the National Register of Historic Places, and therefore could be considered historic properties as defined in 36 CFR 800.16(l). However, an avoidance buffer has been incorporated in the Project Site Plan (see Attachment 3) and schematic design (see Attachment 4). The four silos will also be preserved by applying an avoidance buffer to exclude construction activities from occurring in their immediate vicinity. These avoidance measures will ensure the Project will not affect historic properties.

In a letter dated December 29, 2021, the ICP Historical Building Heritage Program stated it has no objection to the proposed Project, with the condition that should the Project affect any of the identified built cultural resources, details of those effects are to be submitted to their office for review. In a letter dated September 26, 2022, the ICP Archeology and Ethnohistory Program authorized the proposed Project subject to the provisions of Law 112 regarding the suspension of development activities and notification of the ICP in the event inadvertent discovery of cultural resources during construction. In a letter dated October 6, 2023, the ICP Archaeology and Ethnohistory Program authorized the modification of the proposed Project to include a line of interconnection and stated that the Project plans must offer protection of the Guamaní Canal. The ICP authorization letters are provided in Attachment 7.

DOE is currently preparing an Environmental Assessment (EA) pursuant to NEPA to consider the potential environmental consequences of approving the proposed Project. The Section 106 consultation record and Finding for this undertaking will inform the analysis of impacts on cultural resources in the EA. The Draft EA will be published for a public review and comment period. DOE will consider all public comments concerning historic properties, the scope of historic property identification efforts, or any other topic relevant to the Section 106 review of the undertaking that is the subject of this Finding, and incorporate responses to those comments, as appropriate, in the Final EA.

The Basis for the Determination of No Historic Properties Affected

This Finding is based on a review of existing and available information conducted by DOE LPO, including the Phase 1-A/1-B studies of the Project area, avoidance measures incorporated in the site plans, consultation with SHPO and ICP, and conclusions drawn from this information.

The undertaking includes the proposed federal loan guarantee to Clean Flexible Energy, LLC to construct the Project Marahu Salinas Site and interconnection line. Although the identification effort resulted in the identification of potential historic properties as defined in 36 CFR 800.16(l), the incorporation of avoidance measures into the Project design will ensure that the proposed undertaking will not affect historic properties. Therefore, no historic properties will be affected for the undertaking of providing a federal loan guarantee to the Applicant for construction of the Project Marahu Salinas Site, consistent with 36 CFR § 800.4(d)(1).

Requesting your Concurrence and Next Steps

As part of the Section 106 process, we respectfully request your concurrence that the undertaking would not affect any historic properties. We look forward to consulting with your office throughout the Section 106 process. If you have any questions or would like to discuss this project further, please contact me in the DOE Loan Programs Office at 240-457-7973, or email at LPO_Environmental@hq.doe.gov.

Respectfully,

David Oster

Digitally signed by David Oster
Date: 2023.11.20 10:55:58 -05'00'

David A. Oster
NEPA Document Manager
Loan Programs Office

Attachments:

Attachment 1: Salinas, Section 106 Delivery Control Form
Attachment 2: Location Map, Topographic
Attachment 3: Site Plan, Aerial
Attachment 4: Site Schematic Design
Attachment 5: Archaeological Survey Report, Salinas Site
Attachment 6: Archaeological Survey Report, Salinas Interconnection Line
Attachment 7: ICP Authorization Letters

GOVERNMENT OF PUERTO RICO
STATE HISTORIC PRESERVATION OFFICE
Executive Director I Carlos A. Rubio-Cancela I carubio@prshpo.pr.gov

January 11, 2024

David Oster
NEPA Document Manager
Loans Programs Office
Department of Energy
Washington, DC 20585

SHPO 11-21-23-02 U.S. DEPARTMENT OF ENERGY, PROJECT MARAHU JOBOS SITE AND PROJECT MARAJU SALINAS SITE, SECTION 106 CONSULTATION, ISLANDWIDE, PUERTO RICO

Dear Mr. Oster,

Our Office has reviewed the above referenced project in accordance with 54 U.S.C. 306108 (commonly known as Section 106 of the *National Historic Preservation Act*) and 36 CFR Part 800: *Protection of Historic Properties*.

We have examined the archaeological survey reports prepared for the two project sites and concur with their conclusions that the irrigation systems found within both sites are historically significant. We, therefore, believe that these systems are eligible for listing on the National Register of Historic Places under Criterion C. Since the applicant has designed the project to avoid these historic properties, our records support your finding of **no historic properties affected** for this undertaking.

Please note that should you discover other historic properties at any point during project implementation, you should notify the SHPO immediately. If you have any questions regarding our comments, please do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio-Cancela
State Historic Preservation Officer

CARC/GMO/MB

SHPO OECH
OFICINA ESTATAL DE CONSERVACIÓN HISTÓRICA
OFICINA DEL GOBERNADOR
STATE HISTORIC PRESERVATION OFFICE
OFFICE OF THE GOVERNOR

Oster, David

From: Walter E. Soler <wsoler@ambientainc.com>
Sent: Wednesday, November 22, 2023 8:48 AM
To: edwin_muniz@fws.gov; Jose (Jowie) Cruz; Jan Zegarra FWS Zegarra
Cc: Oster, David; carlos.molina@aes.com; Edgard Mauricio Luna AES Luna; Gina Carrillo PMG & Associates Carrillo; Pedro Garcia
Subject: [EXTERNAL] INFORMAL CONSULTATION: SECTION 7-ESA: JOBOS PV PHOTOVOLTAIC PROJECT
Attachments: CFE - US Fish and Wildlife Service - Authorization Letter (Jobos Project) 11_16_2023.pdf

Importance: High

USFWS Informal Consultation_Jobos PV_20231120 1.pdf

Esteem Mr. Muñiz:

On behalf of Clean Flexible Energy, LLC (CFE), an affiliated entity of AES in Puerto Rico, we submit for your evaluation relevant documentation of the referenced project to initiate an informal consultation process and obtain your comments and concurrence related to ESA Section 7 listed species. This process is being initiated in support of Clean Flexible Energy/AES's loan application with DOE-LPO.

Attached to this email, you will find the following:

- CFE's authorization letter.
- Informal consultation letter:
    - LPO's Non-federal designation letter.
    - Draft BA (and supporting studies).
    - Project description.

We respectfully request your receipt confirmation of this email and that you have access to the provided files.

Best regards,

Walter E. Soler-Figueroa
Senior Scientist
President
AMBIENTA INC.
Environmental Consultants
M. (787) 510-7031
Adaptive management for sustainable development!

Oster, David

From:	Walter E. Soler <wsoler@ambientainc.com>
Sent:	Wednesday, November 22, 2023 9:59 AM
To:	edwin_muniz@fws.gov; Jose (Jowie) Cruz; Jan Zegarra FWS Zegarra
Cc:	Oster, David; carlos.molina@aes.com; Edgard Mauricio Luna AES Luna; Gina Carrillo PMG & Associates Carrillo; Pedro Garcia
Subject:	[EXTERNAL] INFORMAL CONSULTATION: SECTION 7-ESA: SALINAS SOLAR PV PHOTOVOLTAIC PROJECT
Attachments:	CFE - US Fish and Wildlife Service - Authorization Letter (Salinas Project) 11_16_2023.pdf

USFWS Informal Consultation_Salinas Solar PV_20231120.pdf

Esteem Mr. Muñiz:

On behalf of Clean Flexible Energy, LLC (CFE), an affiliated entity of AES in Puerto Rico, we submit for your evaluation relevant documentation of the referenced project to initiate an informal consultation process and obtain your comments and concurrence related to ESA Section 7 listed species. This process is being initiated in support of Clean Flexible Energy/AES's loan application with DOE-LPO.

Attached to this email, you will find the following:

- CFE's authorization letter.
- Informal consultation letter:
    - LPO's Non-federal designation letter.
    - Draft BA (and supporting studies).
    - Project description.

We respectfully request your receipt confirmation of this email and that you have access to the provided files.

Best regards,

Walter E. Soler-Figueroa
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October 13, 2023

Edwin E. Muñiz
Field Supervisor
U.S. Fish and Wildlife Service Caribbean Ecological Services Field Office
P.O. Box 491 Boquerón, P.R. 00622

INFORMAL CONSULTATION: SECTION 7-ENDANGERED SPECIES ACT
PROJECT: JOBOS PV PHOTOVOLTAIC PROJECT, MUNICIPALITY OF GUAYAMA, PR

Esteem Mr. Muñiz:

Clean Flexible Energy, LLC, an affiliated entity of AES in Puerto Rico, is under contract with LUMA Energy, which has an agreement to work with the Puerto Rico Electric Power Authority (PREPA) in managing Puerto Rico's electric power system. Clean Flexible Energy, LLC proposes the construction of the photovoltaic solar system Jobos PV (the Project) to provide renewable energy to the distribution network of PREPA.

A Federal financing loan from the U.S. Department of Energy (DOE) Loan Program Office (LPO) is being considered to establish this privately own project which support the objectives of the "Puerto Rico Public Energy Policy Law" (Law No. 17 of April 11, 2019). **Attachment A** of this memorandum contains the LPO *non-federal designation letter*, delegating to Clean Flexible Energy, LLC the ESA-Section 7 consultation process.

The Project will be established within lots of land owned by the Puerto Rico Development Corporation (PRIDCO) with a total combined approximate area of 318.52 cuerdas[1] (1,251,894.3313 square meters), located to the north and south of State Road PR-3 km 143.1-145.3, in the Jobos Ward, in the Municipality of Guayama, P.R. Additionally, Clean Flexible Energy, LLC proposes an electric transmission line (interconnection line), with an approximate length of 900 meters and up to 30 meters wide of right-of way (ROW), for a total area of 6.87 cuerdas[1], within lots of PRIDCO and PR Land Authority (AT), to connect the proposed photovoltaic solar system to be located north and south of the PR-3 km 142 and km 143, and to the east of the Project.

The construction of this project is in line with the objectives of Law No. 17 of April 11, 2019, since in addition to providing an alternative energy source, also contributes to improving the quality of the environment using renewable energy sources, reducing the burning of fossil fuels and greenhouse gas emissions, representing a better use of natural resources for benefit of the environment, public health, and the economy.

Since the Project will likely receive federal financial assistance, it will need to comply with US Code 16 U.S.C. 1536: *Interagency Assistance*, and Code of Federal Regulations 50 CFR Part 402: *Interagency Cooperation-Endangered Species Act of 1073, as amended*, for which this ESA-Section 7 informal consultation process is being initiated with the US Fish and Wildlife Service (USFWS).

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For this ESA-Section 7 informal consultation process a Draft-Biological Assessment (BA) was prepared to evaluate and determine the Project effects over ESA Listed Species. **Attachment B** of this memorandum contains the Draft-BA report prepared for the Project, which includes supporting documentation such as the USFWS *Information for Planning and Consultation Online* (IPaC), Project specific Flora and Fauna Studies and Natural Habitat Certifications from the Puerto Rico Department of Natural and Environmental Resources (DRNA).

Based on the desktop review of existing literature from the IPaC, and other federal and commonwealth consulted references, there are no USFWS or DRNA critical habitats designated at the proposed Project areas. The IPaC Report indicates the potential occurrence of the listed species Puerto Rican Boa (*Chilabothrus inornatus*) within the project vicinity. The presence of the Puerto Rican Boa was not confirmed during the execution of any of flora and fauna studies performed for the Project. In addition, the IPaC reports that there are no migratory birds of conservation concern expected to occur within the Action Area. Based on the National Wetland inventory maps, the IPaC reports the presence of wetlands classified as R4SBC (riverine intermittent streambed seasonally flooded), which correspond to an ephemeral stream that was canalized, its northern section runs through a concrete channel through part of the western portion of the Project and when crosses PR-3 in a south direction it was realigned through an earthen channel, built within what appears to be a stormwater detention area. The Project has been designed to avoid any impacts to aquatic resources.

During the flora and fauna assessment of the Project's interconnexion line, three (3) specimens of the endemic and endangered bird species *Agelaius xanthomus* (Yellow-shouldered Blackbird) were documented with a flock of the bird species *Quiscalus niger* (Greater Antillean Grackle) perched on trees of the tree species *Albizia procera* (white siris); the Icterid birds flew over foraging and perched over the tree species *Pithecellobium dulce* (Manila tamarind) and later flew outside the interconnexion line ROW. This sighting is considered random and transitory, when the Icterids tend to group together just before the reproductive season. This species was not observed during previous studies at the Project Site.

Based on historic aerial photograph interpretation, reference literature and on field observations, the lands where the Project will be developed have been extensively impacted in the past for intensive agriculture and later for industrial uses, some are partially developed, some are under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), denominated as *Fibers Public Supply Wells Superfund Site* and most are currently being used for informal cattle grazing.

Vegetative communities of the Action Area are mostly dominated by the species: *Albizia procera* (white siris) *Prosopis juliflora* (mesquite), *Pithecellobium dulce* (Manila tamarind), *Guazuma ulmifolia* (West Indian elm), *Leucaena leucocephala* (white leadtree), *Megathyrsus maximus* (Guinea grass), *Achyranthes aspera* (prickly chaff flower), *Sida acuta* (common wireweed) and *Solanum torvum* (turkey berry).

Based on the performed studies, habitat type and prepared Draft-BA, it is likely to seldomly and sporadically encounter Puerto Rican Boas and Puerto Rican Yellow-shouldered Blackbirds within Project areas. All these assumptions are based on the habitat observed and on the species' behaviors. Considering the potential occurrence of these species, a series of best management practices (BMPs) and conservation measures will be implemented for the project. These BMPs and conservation measures includes the implementation of a conservation protocol, included in the Draft BA (see **Attachment B**), BMPs associated to the implementation of the Project's *Stormwater Pollution Prevention Plan*, and complying with the non-discretionary *Reasonable and Prudent Measures*, the *Terms and Conditions*, *Monitoring and Reporting Requirements* and *Conservation Measures* included in the USFWS Programmatic Biological Opinion (PBO) issued on July 2023 for the Puerto Rican Boa.

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Based on the above-mentioned assumptions, and on the proposed conservation measures, these are the anticipated effects of the Action over ESA Listed Species:

- **Puerto Rican Boa**: Based on the species behavior, Project location, and on the fact that structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession with almost no developed understory and immature canopy, and which also show limited evidence of suitable habitat (habitat structure and prey availability) for this species, it has been determined that the proposed action ***"may affect, but not likely to adversely affect"*** the species *Chilabothrus inornatus.* This effect is mostly related to seldom incidental encounters during the construction phase of the proposed action. Based on the species behavior, the proposed action may affect this species through injury or death caused by mechanized works, construction and boas hidden on engine vehicle compartment. Consequences include potential loss of individuals; however, those can be considered not likely to adversely affect this species' existence. Capture and relocation of boas is an effective nonlethal mechanism of removing individuals out of harm's way, however it is considered as an incidental take, given this fact, the relocation of any encountered specimens will be coordinated with the corresponding agencies and no boas are proposed to be relocated by project personnel.
- **Yellow-shouldered Blackbird (YSB):** Based on the species behavior and distribution range, Project location, on the fact that the structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession and which do not have the typical suitable habitat for this species, on the fact that this species flies and can have a very wide range mobility along natural areas, it has been determined that the proposed action will have ***"no effect"*** over the species *Agelaius xanthomus*. This effect is mostly related to seldom occurrence of the species during the construction and operation phases of the proposed action and with a higher probability during matting and nesting season.

Based on DRNA recommendations and to comply with Law No. 241 of August 15, 1999 (New Wildlife Law of Puerto Rico) and to compensate for impacts over lands where the Yellow-shouldered Blackbird was observed and classified as Category 4, *natural habitat of ecological value*, which consist of a segment of the interconnexion line consisting of approximately 3.5 cuerdas, Clean Flexible Energy, LLC will buy and transfer a land, which the DRNA has prioritized for acquisition to be added to the Jobos Bay National Estuarine Research Reserve.

We respectfully request your concurrence with the presented effect analysis based on the above narrative and supporting documentation. We will appreciate your comments and prompt response to this determination.

Sincerely,

Walter E. Soler-Figueroa
Presidente

ATTACHMENTS

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AMBIENTA INC.
Environmental Consultants

October 20, 2023

Edwin E. Muñiz
Field Supervisor
U.S. Fish and Wildlife Service Caribbean Ecological Services Field Office
P.O. Box 491 Boquerón, P.R. 00622

INFORMAL CONSULTATION: SECTION 7-ENDANGERED SPECIES ACT
PROJECT: SALINAS SOLAR PV PHOTOVOLTAIC PROJECT
MUNICIPALITIES OF SALINAS AND GUAYAMA, PR

Esteem Mr. Muñiz:

Clean Flexible Energy, LLC, an affiliated entity of AES in Puerto Rico, is under contract with LUMA Energy, which has an agreement to work with the Puerto Rico Electric Power Authority (PREPA) in managing Puerto Rico's electric power system. Clean Flexible Energy, LLC proposes the construction of the photovoltaic solar system Salinas Solar PV (the Project) to provide renewable energy to the distribution network of PREPA.

A Federal financing loan from the U.S. Department of Energy (DOE) Loan Program Office (LPO) is being considered to establish this privately own project which support the objectives of the "Puerto Rico Public Energy Policy Law" (Law No. 17 of April 11, 2019). **Attachment A** of this memorandum contains the LPO *non-federal designation letter*, delegating to Clean Flexible Energy, LLC the ESA-Section 7 consultation process.

The Project will be established within lots of land owned by Agriart, LLC, with a total approximate footprint area of 661 cuerdas, located highway PR-706, km 2.3, in the Aguirre and Jobos Wards, in the Municipalities of Salinas and Guayama, P.R. Additionally, Clean Flexible Energy, LLC proposes an electric transmission line (interconnection line), within a property located to the northwest of the Project, owned by CIRO GROUP with an approximate occupation area of 20 cuerdas to connect the proposed photovoltaic solar system to a new electric substation.

The construction of this project is in line with the objectives of Law No. 17 of April 11, 2019, since in addition to providing an alternative energy source, also contributes to improving the quality of the environment using renewable energy sources, reducing the burning of fossil fuels and greenhouse gas emissions, representing a better use of natural resources for benefit of the environment, public health, and the economy.

Since the Project will likely receive federal financial assistance, it will need to comply with US Code 16 U.S.C. 1536: *Interagency Assistance*, and Code of Federal Regulations 50 CFR Part 402: *Interagency Cooperation-Endangered Species Act of 1073, as amended*, for which this ESA-Section 7 informal consultation process is being initiated with the US Fish and Wildlife Service (USFWS).

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For this Endangered Species ACT (ESA) Section 7 informal consultation process a Draft-Biological Assessment (BA) was prepared to evaluate and determine the Project effects over ESA Listed Species. **Attachment B** of this memorandum contains the Draft-BA report prepared for the Project, which includes supporting documentation such as the USFWS *Information for Planning and Consultation Online* (IPaC), Project specific Wetland Jurisdictional Determination and Delineation Studies, Flora and Fauna Studies and Natural Habitat Certifications from the Puerto Rico Department of Natural and Environmental Resources (DRNA).

Based on the desktop review of existing literature from the IPaC, and other federal and commonwealth consulted references, there are no USFWS or DRNA critical habitats designated at the proposed Project areas. The IPaC Report indicates the potential occurrence of the listed species Puerto Rican Boa (*Chilabothrus inornatus*) within the project vicinity. The presence of the Puerto Rican Boa was not confirmed during the execution of any of studies performed for the Project. In addition, the IPaC reports that there are no migratory birds of conservation concern expected to occur within the Action Area. Based on the National Wetland inventory maps, the IPaC reports the presence of wetlands. During the Project planning stages, wetland jurisdictional determination and delineation studies were performed in order to properly plan the Project design and to avoid impacts over streams and wetlands. The Project has been designed to avoid any impacts to aquatic resources.

During the flora and fauna assessment of the Project's interconnexion line, two (2) specimens of the endemic and federally and commonwealth endangered bird species, Yellow-shouldered Blackbird (*Agelaius xanthomus*), which were documented with a flock of the Puerto Rican Grackle (*Quiscalus niger*) building nest within abandoned structures that use to be part of the former agriculture operation located outside of the Action Area. In addition, during the evaluation of the interconnexion line, a specimen of the Yellow-shouldered Blackbird (*Agelaius xanthomus*) was observed flying over the portion of the line that crosses road PR-706, in the vicinity of km 2.3, outside the Project area. This species was not observed in any other location of the Action Area. The seldom sightings of the Yellow-shouldered Blackbird can be considered as aleatory and to occur sporadically. Based on the species' behavior and since its typical suitable habitat does not occur within the Action Area, limited sightings of the species can occur.

Based on historic aerial photograph interpretation, reference literature and field observations, the lands where the Project will be developed have been extensively impacted in the past for intensive agriculture. Vegetative communities of the Action Area are mostly dominated by the species: *Megathyrsus maximus* (Guinea grass), *Achyranthes aspera* (prickly chaff flower), *Sida acuta* (common wireweed) *Solanum torvum* (turkey berry) *Albizia procera* (white siris) *Prosopis juliflora* (mesquite), *Pithecellobium dulce* (Manila tamarind), *Guazuma ulmifolia*, and (West Indian elm), *Leucaena leucocephala* (white leadtree).

Based on the performed studies, habitat type and prepared Draft-BA, it is likely to seldomly and sporadically encounter Puerto Rican Boas and Puerto Rican Yellow-shouldered Blackbirds within Project areas. All these assumptions are based on the habitat observed and on the species' behaviors. Considering the potential occurrence of these species, a series of best management practices (BMPs) and conservation measures will be implemented for the project. These BMPs and conservation measures includes the implementation of a conservation protocol, included in the Draft BA (see **Attachment B**), BMPs associated to the implementation of the Project's *Stormwater Pollution Prevention Plan*, and complying with the non-discretionary *Reasonable and Prudent Measures*, the *Terms and Conditions*, *Monitoring and Reporting Requirements* and *Conservation Measures* included in the USFWS Programmatic Biological Opinion (PBO) issued in July 2023 for the Puerto Rican Boa.

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Based on the above-mentioned assumptions, and on the proposed conservation measures, these are the anticipated effects of the Action over ESA Listed Species:

- **Puerto Rican Boa**: Based on the species behavior, Project location, and on the fact that structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession with almost no developed understory and immature canopy, and which also show limited evidence of suitable habitat (habitat structure and prey availability) for this species, it has been determined that the proposed action ***"may affect, but not likely to adversely affect"*** the species *Chilabothrus inornatus*. This effect is mostly related to seldom incidental encounters during the construction phase of the proposed action. Based on the species behavior, the proposed action may affect this species through injury or death caused by mechanized works, construction and boas hidden on engine vehicle compartment. Consequences include potential loss of individuals; however, those can be considered not likely to adversely affect this species' existence. Capture and relocation of boas is an effective nonlethal mechanism of removing individuals out of harm's way, however it is considered as an incidental take, given this fact, the relocation of any encountered specimens will be coordinated with the corresponding agencies and no boas are proposed to be relocated by project personnel.
- **Yellow-shouldered Blackbird (YSB):** Based on the species behavior and distribution range, Project location, on the fact that the structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession and which do not have the typical suitable habitat for this species, on the fact that this species flies and can have a very wide range mobility along natural areas, it has been determined that the proposed action will have ***"no effect"*** over the species *Agelaius xanthomus*. This effect is mostly related to seldom occurrence of the species during the construction and operation phases of the proposed action and with a higher probability during matting and nesting season.

In addition, one (1) specimen of the endemic non-federally listed species, but commonwealth endangered reptile species southern garden lizard (*Ctenonotus poncensis*), was documented within forested areas associates to the northern hills. This species was reported by previous environmental studies performed for the former agriculture operation (DOW-Mycogen Seeds) to occur within forested corridors and streams of the Project vicinity.

All the portions of lands classified by the DRNA under the natural habitat classification Category 4, *natural habitat of ecological value*, which includes delineated wetlands, streams and forested corridors will be avoided and were set apart of the Action Area. No impacts will occur within those lands.

We respectfully request your concurrence with the presented effect analysis based on the above narrative and supporting documentation. We will appreciate your comments and prompt response to this determination.

Sincerely,

Walter E. Soler-Figueroa
President

ATTACHMENTS

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
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P.O. Box 491
Boquerón, Puerto Rico 00622

In Reply Refer To:
FWS/R4/CESFO/72123-056

Via Electronic Mail: wsoler@ambientainc.com

Mr. Jesús Bolinaga
President
Clean Flexible Energy, LLC
P.O. Box 1890
Guayama, PR 00785

Re: Salinas Solar PV Photovoltaic Solar System
Aguirre, Jobos and Pozo Hondo wards
Salinas and Guayama, Puerto Rico

Dear Mr. Bolinaga:

Thank you for your letter of November 16, 2023, requesting to initiate consultation for the above referenced project as a designated non-federal representative of the Department of Energy Loan Programs Office (DOE-LPO). As per your request, our comments are provided under the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

Ambienta, Inc. on behalf of Clean Flexible Energy, LLC (the Applicant) provided information on the proposed construction of a 120 MWn solar photovoltaic system and a 100 MW-4Hr battery system to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The Project will be established within lots of land owned by Agriart, LLC, with an approximate total footprint area of 661 cuerdas (approximately 642 acres), located in highway PR-706, km 2.3, in the Aguirre and Jobos Wards in the Municipalities of Salinas and Guayama, respectively. Additionally, Clean Flexible Energy, LLC proposes an electric transmission line (interconnection line), within a property located to the northwest of the proposed project, owned by CIRO GROUP, to connect the photovoltaic solar system to a new electric substation.

According to the information provided, based on the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system, the proposed project lies within the range of the endangered Puerto Rican boa (*Epicrates inornatus*, now known as *Chilabothrus inornatus*) and the endangered yellow shouldered blackbird (YSBL; *Agelaius xanthomus*).

The documents provided by the Applicant indicate that during the flora and fauna assessment for the project, three YSBL individuals were observed within the property, but outside the proposed project site. The Applicant considered these sightings as aleatory and transitory, and determined that the proposed actions will have no effect (NE) on the YSBL based on the species' behavior and distribution, structure and composition of the vegetative communities present at the proposed projects sites that are in very early stages of secondary succession and which do not have the typical suitable habitat for this species.

Based on the vegetative composition (e.g., *Pithecellobium dulce*, *Prosopis juliflora*) and photos of the sites included in the flora and fauna study, the habitat, although disturbed in the past and currently under secondary successional stages, is similar to other areas in southwestern Puerto Rico used by the YSBL for foraging and other behaviors. Therefore, the Service does not agree with your *no effect* (NE) determination for the YSBL. We recommend that the Applicant reconsider such determination and analyze if a not likely to adversely affect (NLAA) determination is more appropriate for this species with the implementation of the conservation measures included in page 14 of the Draft Biological Assessment, also adding that if a YSBL is observed (e.g., foraging, resting) within the project area, any disturbance to the species should be avoided and to not flush the bird until it leaves on its own.

The Applicant also determined the proposed actions *may affect but are not likely to adversely affect* (NLAA) the Puerto Rican boa. This determination was based on the species' behavior, project location in an area impacted by past intensive agricultural practices, and on the fact that the structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession with almost no developed understory and immature canopy, and which also show limited evidence of suitable habitat (habitat structure and prey availability) for this species. The Applicant further indicates the reasonable and prudent measures and terms and conditions included in the U.S. Fish and Wildlife Service's (Service) Programmatic Biological Opinion issued in July 2023 will be implemented (Ambienta Inc., cover letter, p. ii; Draft Biological Assessment, p. 13). However, the Draft Biological Assessment (p. 14) indicates that if a Puerto Rican Boa is encountered within the working areas, it should be left alone without harm until it goes away on its own, but if a boa is encountered within any machinery cavity (e.g., engine, radiator, etc.) and relocation is needed, it should not be captured by project personnel, and designated staff shall call the Puerto Rico DNER to manage the specimen.

The Service developed the Programmatic Biological Opinion (PBO, amended in July 2023) for the Puerto Rican boa and the Virgin Islands tree boa activities with Federal nexus or under the jurisdiction of a Federal agency in Puerto Rico and U.S. Virgin Islands that will result in a take of the species and requires the Federal Agency to make *a may affect, likely to adversely affect* (MLAA) determination, which will trigger a formal consultation under section 7 of the Act. However, since there is a PBO in place, the Service will concur with the MLAA determination, and DOE-LPO will be exempted from the take that would result from the actions described in Section 2 of the PBO (including the capture and relocation of the boas out of harm's way), provided that the Applicant comply with the Terms and Conditions stated in Section 6.4 of the PBO (see enclosure). Please, note the PBO also has reporting requirements (Section 6.5) regarding the capture and relocation of boas that must be complied with.

Should the PBO for the Puerto Rican boa be implemented in this project, which allows for capture and relocation of the species, the Service will not concur with the NLAA determination, and DOE-LPO must submit the consultation with a MLAA determination for the Puerto Rican boa under a formal section 7 consultation process. Nonetheless, if no Puerto Rican boas will be captured and handled during the project implementation, the NLAA determination is appropriate. Thus, we ask the Applicant to clarify which determination will be applied.

Regarding streams and wetlands within the project area, the Applicant performed studies in order to properly plan the project design and to avoid any impacts to aquatic resources. A series of conservation measures and best management practices will be implemented for vegetation clearing and proper erosion and sedimentation control. We recommend the boundaries of the project area, buffer zones, and areas to be excluded and protected be clearly marked in the project plan and in the field prior to any construction activity. Also, we recommend that vegetation along any stream, drainage or creek within the project sites be maintained as those serve as corridors for wildlife species, including the YSBL.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact José Cruz Burgos, Acting Deputy Field Supervisor, via email at jose_cruz-burgos@fws.gov or caribbean_es@fws.gov, or by phone at (786) 244-0081.

Sincerely,

LOURDES MENA

Digitally signed by LOURDES MENA
Date: 2024.01.18 11:19:32 -04'00'
Adobe Acrobat version: 2023.008.20470

Lourdes Mena
Acting Field Supervisor

mgv/jacb

cc:
DOE-LPO, Washington
PREPA, San Juan
PRDNER, San Juan

Department of Energy
Washington, DC 20585

February 12, 2024

Lourdes Mena
Acting Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
P.O. Box 491 Boqueron, P.R. 00622

SUBJECT: Formal Consultation Under Section 7 of the Endangered Species Act for the Salinas Solar PV Photovoltaic Project in Salinas and Guayama Municipalities

Dear Lourdes Mena,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects that support energy infrastructure reinvestment and authorizes the Secretary of Energy to make loan guarantees available for those projects. Clean Flexible Energy, LLC, an affiliate of AES Corporation (The Applicant), has applied for a loan guarantee pursuant to the U.S. DOE's Title XVII Energy Infrastructure Reinvestment Program. DOE is evaluating whether to provide a federal loan guarantee to the Applicant to support the development of a 240 MW Solar Photovoltaic Installation of 641 acres on private properties between the Aguirre and Jobos neighborhoods of the municipalities of Salinas and Guayama ("Salinas"), shown in Figure 1. The loan guarantee application also includes another site located in Barrio Jobos, Guyama, PR, which involves the construction and operation of a 120 MW photovoltaic (PV) electricity generation facility covering 318 acres. The "Jobos" site is being addressed in a separate consultation with your office, submitted by the Applicant on November 22, 2023.

In accordance with the Endangered Species Act of 1973, DOE is requesting formal consultation with your office regarding the effects on the federally endangered Puerto Rican Boa (*Chilabothrus inornatus*) for the Salinas project. Based on the Service's response to Clean Flexible Energy LLC's Biological Assessment, received Janurary 18, 2024, we have determined that adhering the terms and conditions of the Programmatic Biological Assessment (PBO) for the Puerto Rican Boa is in the best interest of species conservation. Consultation under the PBO requires DOE to make a determination that the proposed action *may affect, likely to adversely affect* (MLAA) the Puerto Rican Boa.

As part of the construction of the project, Boas may need to be captured and relocated for their protection. DOE is required to make a MLAA determination, triggering formal consultation under the Act, to implement the action. The PBO, amended in July 2023, specifically addresses activities involving the Puerto Rican Boa and Virgin Islands Tree Boa, and contains and *Incidental Take Statement* (ITS) for these species. Based on your

January 18, 2024, letter, the Service will concur with DOE's MLAA determination, and DOE will be exempted from take that may result from activities described in Section 2 of the PBO. These actions include the capture and relocation of boas to safer locations, provided the applicant complies with Section 6.4 of the PBO. The PBO also includes reporting requirements (Section 6.5) regarding the capture and relocation of boas, which will be adhered to.

DOE requests your concurrence with our MLAA determination and commitment to compliance with the terms and conditions of the PBO to support the conservation of the Puerto Rican Boa.

If you or your staff have additional questions or comments, please contact me in the DOE Loan Programs Office at 240-457-7973, or email at LPO_Environmental@hq.doe.gov.

Sincerely,

David Oster

Digitally signed by David Oster
Date: 2024.02.12 16:08:26 -05'00'

David A. Oster
NEPA Document Manager
Loan Programs Office

Attachments:

DOE NEPA Initiation Letter
Figure 1: Project Area
Figure 2: Salinas Site Plan

Oster, David

From: Walter E. Soler <wsoler@ambientainc.com>
Sent: Tuesday, February 20, 2024 8:09 AM
To: Jose (Jowie) Cruz; Jan Zegarra FWS Zegarra; Mena, Lourdes
Cc: Oster, David; carlos.molina@aes.com; Edgard Mauricio Luna AES Luna; Gina Carrillo PMG & Associates Carrillo; Pedro Garcia
Subject: [EXTERNAL] BIOLOGICAL ASSESSMENT FOR SECTION 7-ESA: SALINAS SOLAR PV PHOTOVOLTAIC PROJECT
Attachments: Biological Assessment_Salinas Solar PV_20240206_compressed2.pdf

Importance: High

Esteem Ms. Mena:

On behalf of Clean Flexible Energy, LLC (CFE), an affiliated entity of AES in Puerto Rico, I am pleased to submit the revised Biological Assessment of the referenced project for your evaluation. This submission is in response to your comments regarding the ESA listed species effect analysis and supplements the Department of Energy's formal consultation process of the project.

We kindly request confirmation of receipt for this email and confirmation of access to the provided files.

Thank you for your attention to this matter.

Sincerely,

Walter E. Soler-Figueroa
Senior Scientist
President
AMBIENTA INC.
Environmental Consultants
M. (787) 510-7031
Adaptive management for sustainable development!

****

****

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Bayamón | Mayagüez | Maricao | Río Grande | St Croix
P.O. Box 491
Boquerón, Puerto Rico 00622

In Reply Refer To:
FWS/R4/CESFO/72123-056

Submitted Via Electronic Mail: LPO_Environmental@hq.doe.gov

Mr. David Oster
Department of Energy
Environmental Protection Specialist
Loan Programs Office
Washington DC 20585

Re: Salinas Solar PV Photovoltaic Solar System
Aguirre, Jobos and Pozo Hondo wards
Salinas and Guayama, Puerto Rico

Dear Mr. Oster:

Thank you for your letter of February 12, 2024, requesting initiation of formal consultation for the above referenced project. As per your request, our comments are provided under the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The U.S. Department of Energy-Loan Programs Office (DOE-LPO) is evaluating whether to provide a Federal loan guarantee to Clean Flexible Energy, LLC (Applicant) to support the development of a 240 MW Solar Photovoltaic Installation of 641 acres in private lots between the Aguirre and Jobos Wards of the municipalities of Salinas and Guayama, respectively.

On November 22, 2023, Ambienta Inc. on behalf of Clean Flexible Energy, LLC (as designated non-Federal representative from DOE-LPO) initiated informal consultation under section 7 of the Act with the U.S. Fish and Wildlife Service (Service) for this project. The federally listed species identified within the range of the project included the endangered Puerto Rican boa (*Epicrates inornatus*, now known as *Chilabothrus inornatus*) and the endangered yellow shouldered blackbird (YSBL; *Agelaius xanthomus*).

During that consultation, the Service recommended the Applicant reconsider their no effect (NE) determination for the yellow shouldered blackbird and analyze if a not likely to adversely affect (NLAA) determination was more appropriate for this species with the implementation of the conservation measures included on page 14 of the Draft Biological Assessment submitted by the Applicant. In addition, the Service recommended including a requirement that if a YSBL was

observed (e.g., foraging, resting) within the project area, the Applicant avoid any disturbance to the birds that would result in flushing. Work could proceed when the birds leave on their own.

Furthermore, the Applicant made an NLAA determination for the Puerto Rican boa, indicating the reasonable and prudent measures and terms and conditions included in the Service's Amended Programmatic Biological Opinion (PBO) issued in July 2023, would be implemented. The Service clarified that in order to implement the PBO, the Federal Agency needed to make a may affect, likely to adversely affect (MLAA) determination, triggering a formal consultation under section 7 of the Act. However, since there is a PBO in place, the Service would concur with the MLAA determination, and DOE-LPO and the Applicant will be exempted from the take that would result from the actions described in Section 2 of the amended PBO (including the capture and relocation of the boas out of harm's way), provided DOE-LPO and the Applicant comply with the terms and conditions and reporting requirements stated in Sections 6.4 and 6.5 of the amended PBO, respectively (see enclosure).

Based on the above, DOE-LPO changed the NLAA effects determination for the Puerto Rican boa and determined that the proposed actions may affect and are likely to adversely affect (MLAA) the species and will request the implementation of the terms and conditions established in the amended PBO as project conditions.

We have reviewed the information provided by DOE-LPO and concur with their MLAA determination for the Puerto Rican boa with the implementation of the terms and conditions included in Sections 6.4 and 6.5 of the amended PBO.

Regarding the YSBL effects determination, on February 20, 2024, we received an updated Biological Assessment from Ambienta, Inc. on behalf of Clean Flexible Energy, LLC (CFE). This updated Biological Assessment reconsidered the original no effect (NE) determination for the YSBL and requests concurrence with a may affect but not likely to adversely affect (NLAA) determination for the YSBL with the implementation of conservation measures, as recommended by the Service.

Based on the new information regarding the YSBL, we concur with the NLAA effects determination for the species. The Service continues to recommend that, in addition to the conservation measures provided, if a YSBL is observed (e.g., foraging, resting) within the project area, it not be disturbed (flushed) until it leaves on its own.

In view of this, we believe that requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner that was not previously considered; (2) this action is subsequently modified in a manner not previously considered in this assessment; or, (3) a new species is listed, or critical habitat determined that may be affected by the identified action.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact José Cruz Burgos, Acting Deputy Field Supervisor, via email

at jose_cruz-burgos@fws.gov or caribbean_es@fws.gov, or by phone at (786) 244-0081.

Sincerely,

ROBERT TAWES

Digitally signed by ROBERT TAWES
Date: 2024.03.07 20:49:46 -05'00'

Robert Tawes
Acting Field Supervisor

mgv/jacb

cc:
Ambienta, Inc.
Clean Flexible Energy, LLC.
DNER, San Juan

Enclosure: Programmatic Biological Opinion for the Puerto Rican boa and the Virgin Islands tree boa

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Bayamón | Mayagüez | Maricao | Río Grande | St Croix
P.O. Box 491
Boquerón, Puerto Rico 00622

In Reply Refer To:
FWS/R4/CESFO/72057-028

Submitted Via Electronic Mail: wsoler@ambientainc.com

Mr. Jesús Bolinaga
President
Clean Flexible Energy, LLC
P.O. Box 1890
Guayama, PR 00785

Re: Jobos PV Photovoltaic Solar System
Jobos Industrial Park, Guayama, Puerto Rico

Dear Mr. Bolinaga:

Thank you for your letter of November 16, 2023, requesting to initiate consultation for the above referenced project as a designated non-federal representative of the Department of Energy Loan Programs Office (DOE-LPO). As per your request, our comments are provided under the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

Ambienta, Inc., on behalf of Clean Flexible Energy, LLC (Applicant) provided information on the proposed construction of an 80 MWn solar photovoltaic system and a 100 MW-4Hr battery system to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The Project will be developed within lots of land owned by the Puerto Rico Development Corporation (PRIDCO in Spanish) with a combined approximate area of 318.52 cuerdas (309 acres). The project is located to the north and south of State Road PR-3, km 143.1-145.3, Jobos Ward in the Municipality of Guayama, Puerto Rico. Additionally, Clean Flexible Energy, LLC proposes an electric transmission line (interconnection line), with an approximate length of 900 meters and up to 30 meters wide of right-of way (ROW), for a total area of 6.87 cuerdas (6.67 acres), within lots of PRIDCO and the Puerto Rico Land Authority (AT in Spanish), to connect the previously mentioned proposed solar photovoltaic system.

According to the information provided, based on the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system, the proposed project lies within the range of the endangered Puerto Rican boa (*Epicrates inornatus*, now known as *Chilabothrus inornatus*) and the endangered yellow shouldered blackbird (YSBL; *Agelaius xanthomus*).

The documents provided by the Applicant indicate that during the flora and fauna assessment for the project, three YSBL individuals were observed within the property. The Applicant considered these sightings as random and transitory, and determined that the proposed actions will have no effect (NE) on the YSBL, based on the species' behavior and distribution, and structure and composition of the vegetative communities present at the proposed projects sites, which are in very early stages of secondary succession and do not have the typical suitable habitat for this species.

Based on the vegetative composition (e.g., *Pithecellobium dulce*, *Prosopis juliflora*) and photos of the sites included in the flora and fauna study, the habitat, although disturbed in the past and currently under secondary successional stages, is similar to other areas in southwestern Puerto Rico used by the YSBL for foraging and other behaviors. Therefore, the Service does not agree with your *no effect* (NE) determination for the YSBL. We recommend that the Applicant reconsider such determination and analyze if a not likely to adversely affect (NLAA) determination is more appropriate or prudent for this species with the implementation of the conservation measures included in page 13 of the Draft Biological Assessment. In addition, if a YSBL is observed (e.g., foraging, resting) within the project area, any disturbance to the species must be avoided until the bird leaves on its own. Do not flush the bird.

The Applicant also determined the proposed actions may affect but are not likely to adversely affect (NLAA) the Puerto Rican boa. This determination was based on the species' behavior, project location in an area impacted by past intensive agricultural practices, and on the fact that the structure and composition of the vegetative communities present at the sites are in very early stages of secondary succession with almost no developed understory and immature canopy, which also show limited evidence of suitable habitat (habitat structure and prey availability) for this species. The Applicant further indicates the reasonable and prudent measures and terms and conditions included in the U.S. Fish and Wildlife Service's (Service) Programmatic Biological Opinion issued in July 2023, will be implemented (Draft Biological Assessment, p. 9). However, the Draft Biological Assessment (p. 13) indicates that if a Puerto Rican Boa is encountered within the working areas, it should be left alone without harm until it goes away on its own, but if a boa is encountered within any machinery cavity (e.g., engine, radiator, etc.) and relocation is needed, it should not be captured by project personnel, and designated staff shall call the Puerto Rico Department of Natural and Environmental Resources to manage the specimen.

The Service developed the Programmatic Biological Opinion (PBO; amended in July 2023) for activities with Federal nexus or under the jurisdiction of a Federal agency in Puerto Rico and U.S. Virgin Islands that could impact the Puerto Rican boa and Virgin Islands tree boa, and that would result in take of these species. Thus, requiring the Federal agency, in this case DOE-LPO, to make a may affect likely to adversely affect (MLAA) determination, which would trigger a formal consultation under section 7 of the Act. Since there is a PBO in place, the Service would concur with the MLAA determination, and DOE-LPO will be exempted from the take that would result from the actions described in Section 2 of the PBO (including the capture and relocation of the boas out of harm's way), provided that the Applicant comply with the Terms and Conditions stated in Section 6.4 of the PBO (see enclosure). Please, note the PBO also has reporting requirements (Section 6.5) regarding the capture and relocation of boas that must be complied with.
Should the PBO for the Puerto Rican boa be implemented in this project, which allows for capture and relocation of the species, the Service will not concur with the NLAA determination, and DOE-LPO must submit the consultation with a MLAA determination for the Puerto Rican boa under a

formal section 7 consultation process. Nonetheless, if no Puerto Rican boas will be captured and handled during the project implementation, the NLAA determination is appropriate. Thus, we ask the Applicant to clarify which determination will be applied.

Regarding streams and wetlands within the project area, there are R4SBC (riverine intermittent streambed seasonally flooded) classified wetlands present, which corresponds to an ephemeral stream that was canalized. Where its northern section runs through a concrete channel through part of the western portion of the project and when it crosses State Road PR-3 in a south direction it is realigned through an earthen channel, built within what appears to be a stormwater detention area. The Applicant has designed the project to avoid any impacts to aquatic resources and a series of conservation measures and best management practices will be implemented for vegetation clearing and proper erosion and sedimentation control. We recommend the boundaries of the project area and any areas to be excluded and protected be clearly marked in the project plan and in the field prior to any construction activity. Also, we recommend that vegetation along any stream be maintained as those serve as corridors for wildlife species, including the YSBL.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact José Cruz Burgos, Acting Deputy Field Supervisor, via email at jose_cruz-burgos@fws.gov or caribbean_es@fws.gov, or by phone at (786) 244-0081.

Sincerely,

LOURDES MENA

Digitally signed by LOURDES MENA
Date: 2024.02.28 16:00:06 -04'00'
Adobe Acrobat version: 2023.008.20533

Lourdes Mena
Acting Field Supervisor

mgv/jacb

Enclosure: Programmatic Biological Opinion for the Puerto Rican boa and the Virgin Islands tree boa

cc:
DOE-LPO, Washington
PREPA, San Juan

Department of Energy
Washington, DC 20585

March 15, 2024

Rob Tawes
Acting Field Supervisor
Caribbean Ecological Services Field Office
U.S. Fish and Wildlife Service
P.O. Box 491 Boqueron, P.R. 00622

SUBJECT: Formal Consultation Under Section 7 of the Endangered Species Act for the Jobos Solar PV Photovoltaic Project in Guayama Municipality

Dear Mr. Tawes,

Title XVII of the Energy Policy Act of 2005 (EPAct) established a federal loan guarantee program for certain projects that support energy infrastructure reinvestment and authorizes the Secretary of Energy to make loan guarantees available for those projects. Clean Flexible Energy, LLC, an affiliate of AES Corporation (The Applicant), has applied for a loan guarantee pursuant to the U.S. DOE's Title XVII Energy Infrastructure Reinvestment Program. DOE is evaluating whether to provide a federal loan guarantee to the Applicant to support the development of an 80 MWn solar photovoltaic system and a 100 MW – 4 Hr Battery Energy Storage System (BESS) to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA). The project is located in the Jobos Barrio of Guayama, PR, shown in Figure 1. The site layout is provided in Figure 2.

In accordance with the Endangered Species Act of 1973, DOE is requesting formal consultation with your office regarding the effects on the federally endangered Puerto Rican Boa (*Chilabothrus inornatus*) for the Jobos project. Based on the Service's response to Clean Flexible Energy LLC's Biological Assessment, received March 5, 2024, we have determined that adhering the terms and conditions of the Programmatic Biological Assessment (PBO) for the Puerto Rican Boa is in the best interest of species conservation. Consultation under the PBO requires DOE to make a determination that the proposed action *may affect, likely to adversely affect* (MLAA) the Puerto Rican Boa.

As part of the construction of the project, Boas may need to be captured and relocated for their protection. DOE is required to make a MLAA determination, triggering formal consultation under the Act, to implement the action. The PBO, amended in July 2023, specifically addresses activities involving the Puerto Rican Boa and Virgin Islands Tree Boa, and contains and *Incidental Take Statement* (ITS) for these species. Based on your March 5, 2024, letter, the Service will concur with DOE's MLAA determination, and DOE will be exempted from take that may result from activities described in Section 2 of

the PBO. These actions include the capture and relocation of boas to safer locations, provided the applicant complies with Section 6.4 of the PBO. The PBO also includes reporting requirements (Section 6.5) regarding the capture and relocation of boas, which will be adhered to.

DOE requests your concurrence with our MLAA determination and commitment to compliance with the terms and conditions of the PBO to support the conservation of the Puerto Rican Boa.

If you or your staff have additional questions or comments, please contact me in the DOE Loan Programs Office at 240-457-7973, or email at LPO_Environmental@hq.doe.gov.

Sincerely,

David Oster

Digitally signed by David Oster
Date: 2024.03.15 13:49:04 -04'00'

David A. Oster
NEPA Document Manager
Loan Programs Office

Attachments:

DOE NEPA Initiation Letter
Figure 1: Project Area
Figure 2: Jobos Site Plan

Oster, David

From: Walter E. Soler <wsoler@ambientainc.com>
Sent: Monday, March 18, 2024 5:16 AM
To: Roman, Damaris
Cc: Vargas, Maritza; Cruz-Burgos, Jose; Oster, David; anais.rodriguez@drna.pr.gov; gmcarrillo@pmggroupllc.com; Farel S. Velazquez Cancel; Ruth Dones Ramos; CEO@prepa.com; carlos.molina@aes.com
Subject: [EXTERNAL] Re: JOBOS PV PHOTOVOLTAIC PROJECT
Attachments: Biological Assessment_Jobos PV_20240314_compressed.pdf

Importance: High

Dear Ms. Román,

I hope this message finds you well. Please find attached the revised Biological Assessment in accordance with the recommendations provided by the Service.

Should you have any questions or require additional information, please do not hesitate to contact us at your earliest convenience.

Best regards,

Walter E. Soler-Figueroa
Senior Scientist
President
AMBIENTA INC.
Environmental Consultants
M. (787) 510-7031
Adaptive management for sustainable development!

From: Roman, Damaris <damaris_roman@fws.gov>
Sent: Tuesday, March 5, 2024 2:14 PM
To: Walter E. Soler <wsoler@ambientainc.com>
Cc: Vargas, Maritza <maritza_vargas@fws.gov>; Cruz-Burgos, Jose <jose_cruz-burgos@fws.gov>; david.oster@hq.doe.gov <david.oster@hq.doe.gov>; anais.rodriguez@drna.pr.gov <anais.rodriguez@drna.pr.gov>; gmcarrillo@pmggroupllc.com <gmcarrillo@pmggroupllc.com>; Farel S. Velazquez Cancel <fvelazquez@drna.pr.gov>; Ruth Dones Ramos <ruth.dones@prepa.com>; CEO@prepa.com <CEO@prepa.com>; carlos.molina@aes.com <carlos.molina@aes.com>
Subject: JOBOS PV PHOTOVOLTAIC PROJECT

Mr. Soler

See attached files regarding the referenced project. Should you have any questions or require additional information, please contact José Cruz Burgos, Acting Deputy Field Supervisor, via email at jose_cruz-burgos@fws.gov or caribbean_es@fws.gov

Thanks

***** If you need assistance, please contact me at emails or mobile below. If you are sending a request for technical assistance or Section 7 consultation, please contact us at Caribbean_es@fws.gov*****

Need a project evaluation? Please visit our Consultation Guidelines website.

Cordially,

Damaris Román Ruiz

Biological Science Technician
US Fish and Wildlife Service
Caribbean Ecological Service Field Office
P.O Box 491/Road 301 km 5.1
Boqueron PR 00622

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Flicker: https://www.flickr.com/photos/usfwssoutheast/sets/72157626859158391/

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Caribbean Ecological Services Field Office
Bayamón | Mayagüez | Maricao | Río Grande | St Croix
P.O. Box 491
Boquerón, Puerto Rico 00622

In Reply Refer To:
FWS/R4/CESFO/72057-028

Via Electronic Mail: LPO_Environmental@hq.doe.gov

Mr. David Oster
Department of Energy
Environmental Protection Specialist
Loan Programs Office
Washington DC 20585

Re: Jobos Solar PV Photovoltaic Solar System
Jobos Ward, Guayama, Puerto Rico

Dear Mr. Oster:

Thank you for your letter of March 15, 2024, requesting initiation of formal consultation under section 7 of the Endangered Species Act (ESA) for the above referenced project. As per your request, our comments are provided under the ESA (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The U.S. Department of Energy-Loan Programs Office (DOE-LPO) is evaluating whether to provide a federal loan guarantee to Clean Flexible Energy, LLC (Applicant) to support the development of an 80 MWn solar photovoltaic system and a 100 MW battery energy storage system to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority. The project will be established in a total combined approximate area of 318 “cuerdas” (308 acres) located in Jobos Ward, in the municipality of Guayama.

On January 24, 2024, Ambienta Inc. on behalf of Clean Flexible Energy, LLC (as designated non-Federal representative from DOE-LPO) initiated informal consultation under section 7 of the ESA with the U.S. Fish and Wildlife Service (Service) for this project. The federally listed species identified within the range of the project included the endangered Puerto Rican boa (*Epicrates inornatus*, now known as *Chilabothrus inornatus*) and the endangered yellow shouldered blackbird (YSBL; *Agelaius xanthomus*).

During that consultation, the Service recommended the Applicant reconsider their no effect (NE) determination for the yellow shouldered blackbird and analyze if a not likely to adversely affect

(NLAA) determination was more appropriate for this species with the implementation of the conservation measures included on page 13 of the Draft Biological Assessment submitted by the Applicant. In addition, the Service recommended including a requirement that if a YSBL was observed (e.g., foraging, resting) within the project area, the Applicant avoid any disturbance to the birds that would result in flushing. Work could proceed when the birds leave on their own.

Furthermore, the Applicant made an NLAA determination for the Puerto Rican boa, indicating the reasonable and prudent measures and terms and conditions included in the Service's Amended Programmatic Biological Opinion (PBO) issued in July 2023, would be implemented. The Service clarified that in order to implement the PBO, the Federal Agency needed to make a may affect, likely to adversely affect (MLAA) determination, triggering a formal consultation under section 7 of the ESA. However, since there is a PBO in place, the Service would concur with the MLAA determination, and DOE-LPO and the Applicant will be exempted from the take that would result from the actions described in Section 2 of the amended PBO (including the capture and relocation of the boas out of harm's way), provided DOE-LPO and the Applicant comply with the terms and conditions and reporting requirements stated in Sections 6.4 and 6.5 of the amended PBO, respectively (see enclosure).

Based on the above, DOE-LPO changed the NLAA effects determination for the Puerto Rican boa and determined that the proposed actions may affect and are likely to adversely affect the species and will request the implementation of the terms and conditions established in the amended PBO as project conditions.

We have reviewed the information provided by DOE-LPO and concur with their MLAA determination for the Puerto Rican boa with the implementation of the terms and conditions included in Sections 6.4 and 6.5 of the amended PBO.

Regarding the YSBL effects determination, on March 18, 2024, we received an updated Biological Assessment from Ambienta, Inc. on behalf of Clean Flexible Energy, LLC (CFE). This updated Biological Assessment reconsidered the original no effect (NE) determination for the YSBL and requests concurrence with a NLAA determination for the YSBL with the implementation of conservation measures, as recommended by the Service.

Based on the new information regarding the YSBL, we concur with the NLAA effect determination for the species. The Service continues to recommend that, in addition to the conservation measures provided, if a YSBL is observed (e.g., foraging, resting) within the project area, it not be disturbed (flushed) until it leaves on its own.

In view of this, we believe that requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner that was not previously considered; (2) this action is subsequently modified in a manner not previously considered in this assessment; or, (3) a new species is listed, or critical habitat determined that may be affected by the identified action.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact José Cruz Burgos, Supervisory Fish and Wildlife Biologist, via email at jose_cruz-burgos@fws.gov or caribbean_es@fws.gov, or by phone at (786) 244-0081.

Sincerely,

ROBERT TAWES

Digitally signed by ROBERT TAWES
Date: 2024.03.29 08:42:26 -04'00'

Robert Tawes
Acting Field Supervisor

mgv/jacb

cc:
Ambienta, Inc.
Clean Flexible Energy, LLC.
DNER, San Juan

Enclosure: Programmatic Biological Opinion for the Puerto Rican boa and the Virgin Islands tree boa

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request January 29, 2024
Name of Project Project Marahu - Jobos - Guayama	Federal Agency Involved U.S. Department of Energy
Proposed Land Use Solar Photovoltaic Power Generation	County and State Guayama, Puerto Rico
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 1/29/2024 / Person Completing Form: Jacqueline Vega-NRCS

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES	NO	Acres Irrigated	Average Farm Size
	☑	☐	1666	87

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount of Farmland As Defined in FPPA
Plantains	Acres: 126,825 % 27	Acres: 126,825 % 27

Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS
LESA - Humacao (SSA)	N/A	2/20/2024

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	316.5			
B. Total Acres To Be Converted Indirectly	5.5			
C. Total Acres In Site	322			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	211.30			
B. Total Acres Statewide Important or Local Important Farmland	72.30			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.2236			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	25.42			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	79			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	12			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	5			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	0			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	27	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	79	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	27	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	106	0	0	0

Site Selected: Jobos	Date Of Selection 3/5/2024	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

The Jobos site is being evaluated as the preferred alternative location for the 120 MW PV facility in DOE's National Environmental Policy Act review of the project's loan guarantee application.

Name of Federal agency representative completing this form: David A. Oster	Date: 3/5/2024

(See Instructions on reverse side)

Form AD-1006 (03-02)

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request January 29, 2024
Name of Project Project Marahu - Salinas	Federal Agency Involved U.S. Department of Energy
Proposed Land Use Solar Photovoltaic Power Generation	County and State Guayama and Salinas, Puerto Rico
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 1/29/2024 — Person Completing Form: Jacqueline Vega-NRCS

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES	NO	Acres Irrigated	Average Farm Size
	☑	☐	1,666	87

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount of Farmland As Defined in FPPA
Plantains	Acres: 126,825 % 27	Acres: 126,825 % 27

Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS
LESA - Humacao (SSA)	N/A	2/20/2024

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	375			
B. Total Acres To Be Converted Indirectly	33			
C. Total Acres In Site	408			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	398.60			
B. Total Acres Statewide Important or Local Important Farmland	4.10			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.3175			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	18.68			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	93			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	20			
5. Distance From Urban Built-up Area	(15)	5			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	1			
8. Creation Of Non-farmable Farmland	(10)	1			
9. Availability Of Farm Support Services	(5)	0			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	62	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	93	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	62	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	155	0	0	0

Site Selected: Salinas	Date Of Selection 3/5/2024	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

The Salinas site is being evaulated as the preferred alternative for the 240MW PV Installation as part of DOE's evaluation of the Project Marahu-Salinas loan application through the National Environmental Policy Act review process.

Name of Federal agency representative completing this form: David A. Oster — Date: 3/5/2024

(See Instructions on reverse side)

Form AD-1006 (03-02)

6 de marzo de 2024

Luis E. Lamboy Torres
Director, Office of Geology and Hydrogeology
Physical Planning Area
Coastal Zone Management Program
Puerto Rico Planning Board
PO Box 41119
San Juan, PR 00940-1119
Via: comentariosjp@jp.pr.gov

Re: Application for Certification of Consistency with the Puerto Rico Coastal Management Program, Form JP-833
Jobos PV
Guayama, Puerto Rico

Dear Director Lamboy Torres,

Clean Flexible Energy, LLC plans to develop a photovoltaic solar system with a total capacity of 120 megawatts (MW). The purpose of this project is to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA), currently administered by LUMA Servco, LLC. This project is conceived in contribution to achieve the goals set by the Puerto Rico Energy Public Policy Act, Act. No. 17 of 17 of April 11, 2019. Jobos PV was granted with a critical designation status per the dispositions stipulated by Administrative Order OGPe 2022-05.

A schematic design of the proposed action is provided in **Attachment A**, while the main components for its development are listed below:

- Ground-mounted solar panels and inverters with approximate total capacity of 120 MW
- Battery Energy Storage System (BESS) with an approximate storage capacity of 100 MW
- Electric Substation
- Transmission Line of 115 kilovolt (Kv) and a length of approximately 4,727 linear meters.
- Service paths
- Administrative Building

- Control room for electrical equipment such as panelboards, transformers and switchgear as specified by the electric design.
- Parking area

A Federal financing loan from the U.S. Department of Energy (DOE) Loan Program Office (LPO) is being considered to establish this privately own project which supports the objectives of the "Puerto Rico Public Energy Policy Law" (Act No. 17 of April 11, 2019).

Taking into consideration that the project site lays within the Coastal Zone Management Act boundary (refer to **Attachment B**) PMG & Associates as authorized representative (refer to **Attachment C**), is submitting this Application for Consistency with the Puerto Rico Coastal Management Program on behalf of the owner.

Attached please find application documents (see **Attachment D**) for the proposed action. If you have any questions or need additional information, do not hesitate to contact us a 787-743-4761 or via email at gmcarrillo@pmggroupllc.com.

Sincerely,

Gina M. Carrillo, PE
PMG & Associates, LLC

Anejos (4)

Cc. Rose A. Ortiz, ortiz_r@jp.pr.gov
Maryguel Fuentes Lancén, fuentes_m@jp.pr.gov

JP-833
Rev. Jan. 01

Commonwealth of Puerto Rico
Office of the Governor
Puerto Rico Planning Board
Physical Planning Area
Land Use Planning Bureau

Application for Certification of Consistency with the Puerto Rico Coastal Management Program

General Instructions:

A. Attach a 1:20,000 scale, U.S. Geological Survey topographic quadrangular base map of the site.

B. Attach a reasonably scaled plan or schematic design of the proposed object, indicating the following:

1. Peripheral areas

2. Bodies of water, tidal limit and natural systems.

C. You may attach any further information you consider necessary for proper evaluation of the proposal.

D. If any information requested in the questionnaire does not apply in your case, indicate by writing "N/A"(not applicable).

E. Submit a minimum of seven (7) copies of this application.

DO NOT WRITE IN THIS BOX

Type of application: _____ Application Number: _____

Date received: _____ Date of Certification: _____

Evaluation result: ☐ Objection ☐ Acceptance ☐ Negotiation

Technician: _____ Supervisor: _____

Comments:

1. Name of Federal Agency: Department of Energy

2. Federal Program Catalog Number:

3. Type of Action:

☐ Federal Activity ☐ License or permit ☒ Federal Assistance

4. Name of Applicant: Clean Flexible Energy, LLC

5. Postal Address: 350 Carlos Chardon Ave., Suite 1034, San Juan, PR 00918

Telephone: 787-866-6817 Fax: _____

6. Project name: Jobos PV

7. Physical Description of Project Location (area, facilities such as vehicular access, drainage, storm and sanitary sewer placement, etc.): see attached document

Lambert Coordinates: X = 17.955° Y = -66.151°

8. Type of construction or other work proposed:

☐ drainage ☐ channeling ☐ landfill ☐ sand extraction

☐ pier ☐ bridge ☐ residential ☐ tourist

others (specify and explain) Photovoltaic Solar System

Description of proposed work: Construction of a 120 MW peak (80 MW nominal) photovoltaic solar system with the purpose of supplying renewable energy to the distribution grid of the Puerto Rico Electric Power Authority (PREPA). Projet includes a battery storage system and installation of a 115 Kv interconnection line (LT).

9. Natural, artificial, historic or cultural systems likely to be affected by the project

Place an X opposite any of the systems indicated below that are in the project area or its surroundings, which are likely to be affected by that activity. Indicate the distance from the project to any outside system that would likely be affected.

System	Within Project	Outside Project	Distance (meters)	Local name of affected system
beach, dunes				
marshes				
coral, reefs				
river, estuary		X	50	
bird sanctuary				
pond, lake, lagoon				
agricultural unit				
forest, wood				
cliff, breakwater				
cultural or tourist area	X			
other (explain)				

Describe the likely impact of the project on the identified system (s).

Positive ☒ Negative ☐

Explain: See attached document

10. Indicate permits, approvals and endorsements of the proposal by Federal and Puerto Rican government agencies. Evidence of such support should be attached to the proposal.

	Yes	No	Pending	Application Number
a. Planning Board	☐	☒	☐	
b. Regulation and Permits Administration	☒	☐	☐	2023-486785-CUB-008692
c. Environmental Quality Board	☒	☐	☐	2023-486785-DEA-011958
d. Department of Natural Resources	☒	☐	☐	O-SE-CCH01-SJ-01882-19052021/SJ-01878-19052021
e. State Historic Preservation Office	☒	☐	☐	SHPO 11-21-23-02
f. U.S. Army Corps of Engineers	☐	☒	☐	N/A
g. U.S. Coast Guard	☐	☒	☐	N/A
h. Other (s) (specify)	☒	☐	☐	See attached document

CERTIFICATION

I CERTIFY THAT (project name) Jobos PV is consistent with the Puerto Rico Coastal Zone Management Program, and that to the best of my knowledge the above information is true.

Jesús Bolinaga
Name (legible)

Signature

President - CFE, LLC
Position

Mar 06. 2024
Date

PMG AND ASSOCIATES
ENGINEERING DESIGN & CONSULTING

6 de marzo de 2024

Luis E. Lamboy Torres
Director, Office of Geology and Hydrogeology
Physical Planning Area
Coastal Zone Management Program
Puerto Rico Planning Board
PO Box 41119
San Juan, PR 00940-1119
Via: comentariosjp@jp.pr.gov

Re: Application for Certification of Consistency with the Puerto Rico Coastal Management Program, Form JP-833
Salinas Solar
Salinas-Guayama, Puerto Rico

Dear Director Lamboy Torres,

Clean Flexible Energy, LLC plans to develop a photovoltaic solar system with a total capacity estimated in 240 megawatts (MW). The purpose of this project is to provide renewable energy to the distribution network of the Puerto Rico Electric Power Authority (PREPA), currently administered by LUMA Servco, LLC. This project is conceived in contribution to achieve the goals set by the Puerto Rico Energy Public Policy Act, Act. No. 17 of 17 of April 11, 2019. Salinas Solar was granted with a critical designation status per the dispositions stipulated by Administrative Order OGPe 2022-05.

Salinas Solar is proposed to be developed in two phases of 120 MW each. A schematic design of the proposed action is provided in **Attachment B**, while the main components for its development are listed below:

- Ground-mounted solar panels and inverters with approximate total capacity of 240 MW
- Battery Energy Storage System (BESS) with an approximate storage capacity of 100 MW
- Electric Substation
- Transmission Line of 115 kilovolt (Kv) and a length of approximately 4,727 linear meters.
- Service paths
- Administrative Building

- Control room for electrical equipment such as panelboards, transformers and switchgear as specified by the electric design.
- Parking area

A Federal financing loan from the U.S. Department of Energy (DOE) Loan Program Office (LPO) is being considered to establish this privately own project which supports the objectives of the "Puerto Rico Public Energy Policy Law" (Act No. 17 of April 11, 2019).

Taking into consideration that the project site lays within the Coastal Zone Management Act boundary, PMG & Associates as authorized representative (refer to **Attachment B**), is submitting this Application for Consistency with the Puerto Rico Coastal Management Program on behalf of the owner.

Attached please find application documents (see **Attachment C**) for the proposed action. If you have any questions or need additional information, do not hesitate to contact us a 787-743-4761 or via email at gmcarrillo@pmggroupllc.com.

Sincerely,

Gina M. Carrillo, PE
PMG & Associates, LLC

Anejos (8)

Cc. Rose A. Ortiz, ortiz_r@jp.pr.gov
Maryguel Fuentes Lancén, fuentes_m@jp.pr.gov

JP-833
Rev. MAR 2005

Commonwealth of Puerto Rico
Office of the Governor
Puerto Rico Planning Board
Physical Planning Area
Land Use Planning Bureau

Application for Certification of Consistency with the Puerto Rico Coastal Management Program

General Instructions:

A. Attach a 1:20,000 scale, U.S. Geological Survey topographic quadrangular base map of the site.

B. Attach a reasonably scaled plan or schematic design of the proposed object, indicating the following:

1. Peripheral areas

2. Bodies of water, tidal limit and natural systems.

C. You may attach any further information you consider necessary for proper evaluation of the proposal.

D. If any information requested in the questionnaire does not apply in your case, indicate by writing "N/A"(not applicable).

E. Submit a minimum of seven (7) copies of this application.

DO NOT WRITE IN THIS BOX

Type of application: _____ Application Number: _____

Date received: _____ Date of Certification: _____

Evaluation result: ☐ Objection ☐ Acceptance ☐ Negotiation

Technician: _____ Supervisor: _____

Comments: _____

1. Name of Federal Agency: Department of Energy
2. Federal Program Catalog Number: _____
3. Type of Action:

☐ Federal Activity ☐ License or permit ☒ Federal Assistance

4. Name of Applicant: Clean Flexible Energy, LLC

Postal Address: 350 Carlos Chardon Ave. Suite 1034, San Juan 00918

Telephone: 787-866-6817 Fax: _____

5. Project name: Salinas Solar
6. Physical Description of Project Location (area, facilities such as vehicular access, drainage, storm and sanitary sewer placement, etc.): See attached document.

Lambert Coordinates: X = 17.98656342 Y = -66.21259694

7. Type of construction or other work proposed:

☐ drainage ☐ channeling ☐ landfill ☐ sand extraction

☐ pier ☐ bridge ☐ residential ☐ tourist

others (specify and explain) photovoltaic

Description of proposed work: Construction of a 240 MW solar photovoltaic solar system with a storage capacity of 100 MW, an electrical substation and an interconection line with the purpose of providing renewable energy to the distribution grid of the Puerto Rico Electric Power Authority (PREPA).

8. Natural, artificial, historic or cultural systems likely to be affected by the project

Place an X opposite any of the systems indicated below that are in the project area or its surroundings, which are likely to be affected by that activity. Indicate the distance from the project to any outside system that would likely be affected.

System	Within Project	Outside Project	Distance (meters)	Local name of affected system
beach, dunes				N/A
marshes				N/A
coral, reefs				N/A
river, estuary	X			moros, aguas verdes, unnamed creek
bird sanctuary				N/A
pond, lake, lagoon				N/A
agricultural unit				N/A
forest, wood				N/A
cliff, breakwater				N/A
cultural or tourist area	X			Ramal Rovira, Hist 30227
other (explain)				

Describe the likely impact of the project on the identified system (s).

Positive ■ Negative ☐

Explain:

There will be no significant impact in the affected areas since the project will maintain buffer zones of 5-7 meters to completely avoid those areas. See attached document.

9. Indicate permits, approvals and endorsements of the proposal by Federal and Puerto Rican government agencies. Evidence of such support should be attached to the proposal.

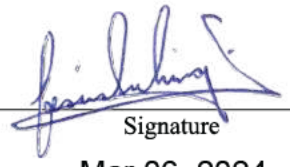
	Yes	No	Pending	Application Number
a. Planning Board	☐	☒	☐	
b. Regulation and Permits Administration	☐	☐	☒	2023-507196-CUB-009853
c. Environmental Quality Board	☒	☐	☐	023-507196-DEA-013159
d. Department of Natural Resources	☒	☐	☐	O-SE-CCH01-SJ-01881-19052
e. State Historic Preservation Office	☒	☐	☐	SHPO 11-21-23-02
f. U.S. Army Corps of Engineers	☐	☒	☐	N/A
g. U.S. Coast Guard	☐	☒	☐	N/A
h. Other (s) (specify)	☒	☐	☐	ICP - SN-21-452

CERTIFICATION

I CERTIFY THAT (project name) Salinas Solar is consistent with the Puerto Rico Coastal Zone Management Program, and that to the best of my knowledge the above information is true.

Jesus Bolinaga
Name (legible)

President - CFE, LLC
Position


Signature

Mar 06, 2024
Date

GOVERNMENT OF PUERTO RICO
PUERTO RICO PLANNING BOARD

April 26, 2024

Federal Consistency Certification with the
Puerto Rico Coastal Zone Management Program
Federal Assistance

CZ-2024-0314-133
Municipality of Guayama, Jobos PV
PR-3 Km 143.1-145.3

RESOLUTION

TO NOTIFY PARTIES ABOUT THE ISSUANCE OF A FEDERAL CONSISTENCY CERTIFICATE ACCORDING TO THE COASTAL ZONE MANAGEMENT ACT FEDERAL CONSISTENCY REGULATIONS, 15 CFR Part 930

Clean Flexible Energy, LLC, represented by Mr. Jesús Bolinaga submitted the application to obtain federal assistance. Jobos PV was granted with a strategic designation status per the dispositions stipulated by Puerto Rico Planning Board (PRPB) PE-2023-71-004. A Federal financing loan from the U.S. Department of Energy (DOE) Loan Program Office (LPO) is being considered to establish this privately own project which supports the objectives of the "Puerto Rico Public Energy Policy Law".

The applicant plans to develop a photovoltaic solar system with a total capacity of 120 megawatts (MW). The purpose of this project is to provide renewable energy to the distribution network of the Puerto Rico Power Authority (PREPA), currently administered by LUMA Servco, LLC.

The project site will be located on a land area of approximately 318.52 acres on PR-3 Km 143.1-145.3 and consists of four parcels of land with cadastral numbers 441-000-004-06, 441-000-003-07, 441-000-003-09, 441-000-004-13 within the Jobos Industrial Park in the Municipality of Guayama, Puerto Rico. The Puerto Rico Industrial Development Company (PRIDCO) is the owner of the parcels where the photovoltaic installation proposed for the Jobos project will be located. Clean Flexible Energy, LLC and PRIDCO have entered into agreements in which the Project Owner will lease several vacant parcels to the Property Owner.

The purpose of the project is to achieve the goals established by the Public Energy Policy of Puerto Rico Act. No. 17 of 17 April 11, 2019. The main components for the development are:

- Ground-mounted solar panels and inverters with approximate total capacity of 120 MW
- Battery Energy Storage System (BESS) with approximate storage capacity of 100 MW
- Electric Substation
- Transmission Line of 115 kilovolt (Kv) and length of approximately 4,727 linear meters.
- Service paths.
- Administrative Building
- Control room for electrical equipment such as panelboards, transformers and switchgear as specified by the electric design.
- Parking area

As part of the completed evaluation, the Puerto Rico Planning Board made the following recommendations:

- The properties are within an X zone of low flooding risk according to FEMA Advisory Maps of April 13, 2018.

- The PR Permit Management Office (OGPe) submitted the required environmental compliance endorsements for the proposed reconstruction project according to the PR Environmental Policy Law (Law Number 416 of September 22, 2004).

- The PRCI issued a favorable recommendation to the proposed project. However, archeological evaluation revealed an irrigation canal determined to be of interest for preservation and conservation. Project design considers a 15-meter buffer zone as a protective measure, required by the PRCI. No impacts to the systems indicated above are expected.

- According to Criteria C, the State Historic Preservation Office (SHPO) classified the irrigation systems found within both sites are historically significant and they believe that are eligible for listing on the National Register of Historic Places. Since the project was designed to exclude historic properties, SHPO confirmed that their records do not show any historic properties impacted by this undertaking.

Considering the above-mentioned recommendations the Puerto Rico Planning Board (PRPB) in its meeting held on April 17, *2024;* **determined that the federal assistance to be awarded through the U.S. Department of Energy (DOE) Loan Program Office (LPO) for the proposed project is consistent with the PR Coastal Zone Management Program Policies**. This final determination does not exempt the project from complying with any other procedures or permits of other State or Federal agencies.

The following parties shall be notified: **Mr. Jesús Bolinaga**, jose.desousa@aees.com President, CFE, LLC; Clean Flexible Energy, LLC 350 Carlos Chardon Ave. Suite 1034, San Juan, PR 00918; Eng. Pedro M. García Campos pmgarcia@pmggroupllc.com PMG Associates, LLC PO Box 669 Caguas, Puerto Rico 00725; Eng. Gina M. Carrillo gmcarrillo@pmggroupllc.com PMG Associates, LLC PO Box 669 Caguas, Puerto Rico 00725; Acting Director PRCZMP Office, Department of Natural an Environmental Resources San José Industrial Park, 1375 Ave Ponce de León San Juan, Puerto Rico 00926;

Julio Lassús Ruiz, LLM, MP, PPL
President

Certify: That this Resolution is copy of the agreement adopted by Puerto Rico Planning Board (PRPB) in its meeting held on **April 17, 2024**. I issue and notify this copy to the parties with my signature and the official Puerto Rico Planning Board stamp.

In San Juan, Puerto Rico, today MAR 2 6 2024

Edgardo Vázquez Rivera
Secretary

GOBIERNO DE PUERTO RICO
JUNTA DE PLANIFICACIÓN

APPENDIX B PERMITS AND AUTHORIZATIONS

Jobos Project

Table B-1: Jobos Project (Solar + BESS) Permits and Authorizations

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	JOBOS PPOA	JOBOS ESSA
PROJECT PLANNING AND PRE-CONSTRUCTION AUTHORIZATIONS, ENDORSEMENTS, AND PERMITS					
0	Site Acquisition, Control, and Development				
0.1	Land Lease and Easements				
0.1.1	Lands		Land agreement	Signed	Signed
0.1.2	Lines & Rights of Way		Land agreement	Signed	Signed
0.2	Develop Project Concept & Description				
0.2.1	Schematic Design PV Area		Basic engineering	Final layout	Final layout
0.2.2	Schematic Design Interconnection Line		Basic engineering	Final layout	Final layout
0.3	Studies				
0.3.1	Land Title Record		Study report	Final report delivered	Final report delivered
0.3.2	Habitat Categorization		Study report	Final report delivered	Final report delivered
0.3.3	Flora and Fauna Study		Study report	Final report delivered	Final report delivered
0.3.4	Phase IA/IB Archaeological Study		Study report	Final report delivered	Final report delivered
0.3.5	Topographic Survey and Boundary Survey (ALTA)		Study report	Final report delivered	Final report delivered
0.3.6	Stormwater Management Study		Study report	Final report delivered	Final report delivered
0.3.7	Neighbors Adjacent Study		Study report	Final report delivered	Final report delivered
0.3.8	Geotechnical and Soil Study		Study report	Final report delivered	Final report delivered
0.3.9	Pull-out Test		Study report	Final report delivered	Final report delivered
0.3.10	Tree Inventory and Mitigation Plan		Study report	Final report delivered	Final report delivered

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	JOBOS PPOA	JOBOS ESSA
0.3.11	Wind Study		Study report	Final report delivered	Final report delivered
1	Determination of Environmental Compliance (Law 416, Art. 4[B][3])				
1.1	Recommendation for Environmental Assessment (REA)	OGPe	Environmental Assessment (EA) w/ supporting studies and impact analysis	Finished	Finished
			REA Submittal	Submitted	Submitted
			OGPe REA revision and approval	Approved	Approved
1.2	Determination of Environmental Compliance (DEA)	OGPe	REA approval and endorsements	Approved	Approved
2	Endorsements/Authorizations				
2.1	Natural Habitat Categorization Certificate	DRNA/OGPe	Flora and fauna study	Approved	Approved
2.2	Single Permit for Terrestrial Material Extraction (40 to 5,000 m^3)	OGPe	Memorandum and location map, field studies trail plan	Approved	Approved
2.3	PREPA Interconnection Point Endorsement/Approval	PREPA/LUMA Energy	Interconnection point design plan/drawings	Interconnection contract signed	Interconnection contract signed
2.4	Infrastructure Recommendations (REA)	OGPe	Consultation letters with explicative memorandum and location maps		
2.4.1	PRASA Recommendation			Approved	Approved
2.4.2	PREPA Recommendation			Approved	Approved
2.4.3	PRHTA Recommendation			Approved	Approved
2.5	General Municipal Recommendation/Endorsement	Municipality	Explicative memorandum	Approved	Approved
2.6	PRHTA/DTOP/Municipality Authorization for Right of Way and/or Boundaries Conformity, as Applicable	PRHTA/DTOP/ Municipality	Design drawings	Approved	Approved
2.7	General Municipal Recommendation/Endorsement and PRHTA/DTOP/Municipality Authorization for Right of Way and/or Boundaries Conformity, as Applicable for Interconnections Work	PRHTA/DTOP/Municipality Authorization for Right of Way and/or Boundaries	Design drawings/PREPA confirmation on interconnection requirement once Phase III of RFP process evaluation is concluded	Approved	Approved

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	JOBOS PPOA	JOBOS ESSA
		Conformity, as Applicable			
2.8	EPA Consultation/Endorsement (Superfund site)	EPA/Fibers	Initial consultation letter to EPA	Approved	Approved
			Consent Fibers Group	Approved	Approved
			EPA consent	Approved	Approved
			Final design approval request	Approved	Approved
2.9	USACE – Cuerpo de Ingenieros		Wetlands jurisdictional	NA	NA
3	Siting Consultation				
3.1	Siting Consultation Approval Process	OGPe	Explicative memorandum	Approved	Approved
			Construction parameters	Approved	Approved
			Flooding certification	Approved	Approved
			Municipal recommendation	Approved	Approved
			Evidence of environmental compliance	Approved	Approved
			Certification and notification of adjacent property owners	Approved	Approved
4	Third-party Contracting				
4.1	BOS/Main Equipment				
4.1.1	BOS		Fully executed contract	Executed	Executed
4.1.2	Module		Fully executed contract	Executed	NA
4.1.3	Inverters		Fully executed contract	Executed	NA
4.1.4	Fix Structure/5B		Fully executed contract	Executed	NA
4.1.5	GSUs		Fully executed contract	Executed	Executed
4.1.6	MTRs Battery System		Fully executed contract	Executed	NA
4.1.7	Battery Energy Storage System		Fully executed contract	Executed	Executed
CONSTRUCTION PERMITS					
5	Recommendations/Endorsements for Construction Permit				
5.1	Final Design PV Site, Step-up Substation, and Interconnection (100%)		Schematic design (100%)	In process	In process

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	JOBOS PPOA	JOBOS ESSA
5.2	Infrastructure Recommendations (REC)	OGPe	Consultation letters with explicative memorandum and location maps		
5.2.1	PRASA Recommendation			Approved	Approved
5.2.2	PREPA Recommendation			Approved	Approved
5.2.3	PRHTA Recommendation			Approved	Approved
5.3	Fire Department Endorsement	OGPe	Explicative memorandum and location map	Approved	Approved
5.4	Department of Health Endorsement	OGPe	Explicative memorandum and location map	Approved	Approved
5.5	Telecommunications Bureau (NET, formerly JRTPR) Recommendation	OGPe	Explicative memorandum and location map	Approved	Approved
6	Construction Permits				
6.1	Construction Permit (PCU) Application	OGPe	Project design PV and step-up substation (60%)	Approved	Approved
			Fire department and Department of Health recommendations (see 4.0)	Approved	Approved
			PREPA REC (see 2.4)	Approved	Approved
			PRHTA/DTOP/municipal endorsements (see 2.6)	Approved	Approved
			Contractor/inspector information	Approved	Approved
			ADS recycling plan approval	Approved	Approved
6.2	Construction Permit (PCO) Application	OGPe	Final project design (100%)	Expected in July 2024	Expected in July 2024
			Fire department and Department of Health recommendations (see 4.0)	Expected in July 2024	Expected in July 2024
			PREPA REC (see 2.4)	Expected in July 2024	Expected in July 2024

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	JOBOS PPOA	JOBOS ESSA
			PRHTA/DTOP/municipal endorsements (see 2.6)	Expected in July 2024	Expected in July 2024
			Contractor/inspector information	Expected in July 2024	Expected in July 2024
			ADS recycling plan approval	Expected in July 2024	Expected in July 2024
6.3	NPDES General Construction Permit	EPA	Notice of intent	Expected in July 2024	Expected in July 2024
			Stormwater pollution prevention plan (SWPPP)	Expected in July 2024	Expected in July 2024
			Notice of termination	Expected in July 2024	Expected in July 2024
7	Permiso Único Incidental Operacional (PUI)				
7.1	General Consolidated Permit (PGC)	OGPe	CES Plan and drawings	Expected in July 2024	Expected in July 2024
			DS-3 operating plan	Expected in July 2024	Expected in July 2024
			Mitigation measures for fugitive dust	Expected in July 2024	Expected in July 2024
7.2	Earth Work Incidental Permit (PI)	OGPe	Design drawings (survey)	Expected in July 2024	Expected in July 2024
7.3	Permit for Tree Removal, Planting, and Reforestation	OGPe	Tree inventory and tree mitigation plan (should be coordinated with the habitat categorization)	Expected in July 2024	Expected in July 2024
OPERATIONAL PERMITS					
8	Application for Approval for the Construction or Operation of Emission Sources in Puerto Rico	DRNA	Emission source specifications, control measures, emission calculations	Expected in November 2025	Expected in November 2025
9	Permit for Power Generator (if required, based on project technical requirements)	OGPe	Municipal recommendation, professional certification, air emission calculations, cost estimate	Expected in November 2025	Expected in November 2025

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	JOBOS PPOA	JOBOS ESSA
10	Use Permit	OGPe	Fire department and Department of Health certifications, PV project certification and operation and maintenance plan (see 4.0)	Expected in November 2025	Expected in November 2025
11	PR Energy Bureau Compliance Certification	Energy Bureau	Certification of compliance signed by a licensed engineer, “as built” signed by a licensed engineer, and certification of inspection by a licensed engineer	Expected in November 2025	Expected in November 2025

Salinas Project

Table B-2: Salinas Project (Solar + BESS) Permits and Authorizations

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	SALINAS PPOA	SALINAS ESSA
PROJECT PLANNING AND PRE-CONSTRUCTION AUTHORIZATIONS, ENDORSEMENTS, AND PERMITS					
0	Site Acquisition, Control, and Development				
0.1	Land Lease and Easements				
0.1.1	Lands		Land agreement	Signed	Signed
0.1.2	Lines & Rights of Way		Land agreement	Signed	Signed
0.2	Develop Project Concept & Description				
0.2.1	Schematic Design PV Area		Basic engineering	Final layout	Final layout
0.2.2	Schematic Design Interconnection Line		Basic engineering	Final layout	Final layout
0.3	Studies				
0.3.1	Land Title Record		Study report	Final report delivered	Final report delivered
0.3.2	Habitat Categorization		Study report	Final report delivered	Final report delivered
0.3.3	Flora and Fauna Study		Study report	Final report delivered	Final report delivered
0.3.4	Phase IA/IB Archaeological Study		Study report	Final report delivered	Final report delivered
0.3.5	Topographic Survey and Boundary Survey (ALTA)		Study report	Final report delivered	Final report delivered

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	SALINAS PPOA	SALINAS ESSA
0.3.6	Stormwater Management Study		Study report	Final report delivered	Final report delivered
0.3.7	Neighbors Adjacent Study		Study report	Final report delivered	Final report delivered
0.3.8	Geotechnical and Soil Study		Study report	Final report delivered	Final report delivered
0.3.9	Pull-out Test		Study report	Final report delivered	Final report delivered
0.3.10	Tree Inventory and Mitigation Plan		Study report	Final report delivered	Final report delivered
0.3.11	Wind Study		Study report	Final report delivered	Final report delivered
1	Determination of Environmental Compliance (Law 416, Art. 4[B][3])				
1.1	Recommendation for Environmental Assessment (REA)	OGPe	Environmental Assessment (EA) w/ supporting studies and impact analysis	Finished	Finished
			REA submittal	Approved	Approved
			OGPe REA revision and approval	Approved	Approved
1.2	Determination of Environmental Compliance (DEA)	OGPe	REA approval and endorsements	Approved	Approved
2	Endorsements/Authorizations				
2.1	Natural Habitat Categorization Certificate	DRNA/OGPe	Flora and fauna study	Finished	Finished
2.2	Single Permit for Terrestrial Material Extraction (40 m3 to 5,000 m3)	OGPe	Memorandum and location map, field studies trail plan	Approved	Approved
2.3	PREPA Interconnection Point Endorsement/Approval	PREPA/LUMA Energy	Interconnection point design plan/drawings	Approved	Approved
2.4	Infrastructure Recommendations (SRI)	OGPe	Consultation letters with explicative memorandum and location maps	N/A	N/A
2.4.1	PRASA Recommendation			Approved	Approved
2.4.2	PREPA Recommendation			Approved	Approved
2.4.3	PRHTA Recommendation			Approved	Approved
2.5	General Municipal Recommendation/Endorsement	Municipality	Explicative memorandum	Approved	Approved
2.6	PRHTA/DTOP/Municipality Authorization for Right of Way and/or Boundaries Conformity, as Applicable	PRHTA/DTOP/ Municipality	Design drawings	Approved	Approved

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	SALINAS PPOA	SALINAS ESSA
2.7	General Municipal Recommendation/Endorsement and PRHTA/DTOP/Municipality Authorization for Right of Way and/or Boundaries Conformity, as Applicable for Interconnections Work	PRHTA/DTOP/Municipality Authorization for Right of Way and/or Boundaries Conformity, as Applicable	Design Drawings/PREPA confirmation on interconnection requirement once Phase III of RFP process evaluation is concluded	Approved	Approved
2.8	EPA Consultation/Endorsement (Superfund site)	EPA / Fibers	Initial consultation letter to EPA	NA	NA
			Consent Fibers Group	NA	NA
			EPA consent	NA	NA
			Final design approval request	NA	NA
2.9	USACE – Cuerpo de Ingenieros		Wetlands jurisdictional	NA	NA
3	Siting Consultation				
3.1	Siting Consultation Approval Process	OGPe	Explicative memorandum	Approved	Approved
			Construction parameters	Approved	Approved
			Flooding certification	Approved	Approved
			Municipal recommendation	Approved	Approved
			Evidence of environmental compliance	Approved	Approved
			Certification and notification of adjacent property owners	Approved	Approved
4	Third-party Contracting				
4.1	BOS/Main Equipment				
4.1.1	BOS		Fully executed contract	Executed	Executed
4.1.2	Module		Fully executed contract	Executed	NA
4.1.3	Inverters		Fully executed contract	Executed	NA
4.1.4	Fix Structure/5B		Fully executed contract	Executed	NA
4.1.5	GSUs		Fully executed contract	Executed	Executed
4.1.6	MTRs Battery System		Fully executed contract	Executed	NA

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	SALINAS PPOA	SALINAS ESSA
4.1.7	Battery Energy Storage System		Fully executed contract	Executed	Executed
CONSTRUCTION PERMITS					
5	Recommendations/Endorsements for Construction Permit				
5.1	Final Design PV Site, Step-up Substation and Interconnection (100%)		Schematic design (100%)	In process	In process
5.2	Infrastructure Recommendations (REC)	OGPe	Consultation letters with explicative memorandum and location maps		
5.2.1	PRASA Recommendation			Expected in June 2024	Expected in June 2024
5.2.2	PREPA Recommendation			Expected in June 2024	Expected in June 2024
5.2.3	PRHTA Recommendation			Expected in June 2024	Expected in June 2024
5.3	Fire Department Endorsement	OGPe	Explicative memorandum and location map	Expected in June 2024	Expected in June 2024
5.4	Department of Health Endorsement	OGPe	Explicative memorandum and location map	Expected in June 2024	Expected in June 2024
5.5	Telecommunications Bureau (NET, formerly JRTPR) Recommendation	OGPe	Explicative memorandum and location map	Expected in June 2024	Expected in June 2024
6	Construction Permits				
6.1	Construction Permit (PCU) Application	OGPe	Project design PV and step-up substation (60%)	Expected in July 2024	Expected in July 2024
			Fire department and Department of Health recommendations (See 4.0)	Expected in July 2024	Expected in July 2024
			PREPA REC (see 2.4)	Expected in July 2024	Expected in July 2024
			PRHTA/DTOP/municipal endorsements (see 2.6)	Expected in July 2024	Expected in July 2024
			Contractor/inspector information	Expected in July 2024	Expected in July 2024
			ADS recycling plan approval	Expected in July 2024	Expected in July 2024
6.2	Construction Permit (PCO) Application	OGPe	Final project design (100%)	Expected in July 2024	Expected in July 2024
			Fire department and Department of Health	Expected in July 2024	Expected in July 2024

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	SALINAS PPOA	SALINAS ESSA
			recommendations (see 4.0)		
			PREPA REC (see 2.4)	Expected in July 2024	Expected in July 2024
			PRHTA/DTOP/municipal endorsements (see 2.6)	Expected in July 2024	Expected in July 2024
			Contractor/inspector information	Expected in July 2024	Expected in July 2024
			ADS recycling plan approval	Expected in July 2024	Expected in July 2024
6.3	NPDES General Construction Permit	EPA	Notice of intent	Expected in July 2024	Expected in July 2024
			Stormwater pollution prevention plan (SWPPP)	Expected in July 2024	Expected in July 2024
			Notice of termination	Expected in July 2024	Expected in July 2024
7	Permiso Único Incidental Operacional (PUI)				
7.1	General Consolidated Permit (PGC)	OGPe	CES Plan and drawings	Expected in July 2024	Expected in July 2024
			DS-3 operating plan	Expected in July 2024	Expected in July 2024
			Mitigation measures for fugitive dust	Expected in July 2024	Expected in July 2024
7.2	Earth Work Incidental Permit (PI)	OGPe	Design drawings (survey)	Expected in July 2024	Expected in July 2024
7.3	Permit for Tree Removal, Planting, and Reforestation	OGPe	Tree inventory and tree mitigation plan (should be coordinated with the habitat categorization)	Expected in July 2024	Expected in July 2024
OPERATIONAL PERMITS					
8	Permit for Power Generator (if required, based on project technical requirements)	OGPe	Municipal recommendation, professional certification, air emission calculations, cost estimate	Expected in December 2025	Expected in December 2025
9	Use Permit	OGPe	Fire department and Department of Health Certifications, PV project certification and operation and maintenance plan (see 4.0)	Expected in December 2025	Expected in December 2025

ITEM	PERMITS/AUTHORIZATIONS	AGENCY	REQUIRED	SALINAS PPOA	SALINAS ESSA
10	PR Energy Bureau Compliance Certification	Energy Bureau	Certification of compliance signed by a licensed engineer, “as built” signed by a licensed engineer, and certification of inspection by a licensed engineer	Expected in December 2025	Expected in December 2025