Plan of Development LARREA SOLAR PROJECT CLARK COUNTY, NEVADA



Submitted by:

Naturgy Candela Devco, LLC

Submitted To:

U.S. DEPARTMENT OF THE INTERIOR BOILDO OF LAND PARADOMINI

BUREAU OF LAND MANAGEMENT

Southern Nevada District

Las Vegas Field Office

April 2023

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1 Project Description

1.1 Introduction

1.1.1 Type of Facility, Planned Uses, Generation Output

Naturgy Candela Devco, LLC (Applicant) proposes to construct, operate and decommission the Larrea Solar Project (Project). The Project would be a up to 205-megawatt (MW) alternating current (AC) solar photovoltaic (PV) power generating facility on approximately 1,233 acres of federal land managed by the Bureau of Land Management (BLM) land located in Clark County, Nevada. The Project would include energy storage up to approximately 820 MWh. The Project would interconnect from the Project substation via a 230 kilovolt (kV) transmission line (gen-tie) into the constructed Gridliance Trout Canyon Substation pursuant to an Interconnection Agreement where the renewable generation would be delivered into the electrical transmission system. The energy storage component of the Project would optimize the delivery of power to the grid.

1.1.2 Schedule for Project

The Applicant would work with BLM, Clark County and other agencies towards the Project Schedule outlined in **Table 1-1**.

Table 1-1 GENERAL PROJECT LARREA SOLAR	SCHEDULE PROJECT
Task	Date
SF 299 Application	November 2022
Notice of Intent (NOI)	January 2024
Final EIS / Record of Decision (ROD)	August 2025
Right-of-Way Grant (ROW)	September 2025
Construction Start	January 2026
Commercial Operation	June 2027

1.2 Proponent's Purpose and Need for the Project

The purpose of the Project is to provide a clean, renewable source of solar electricity to help meet the region's growing demand for power and fulfill national and state renewable energy and greenhouse gas emission goals. This Project could serve electricity users in Nevada and/or California. Nevada has recently updated its Renewable Portfolio Standard (RPS) to require that 25 percent of all electricity generated in Nevada be derived from renewable sources by 2025 and 50 percent by 2030.

Also, the State of California has updated its RPS to a requirement for California's electric utilities to have 50 percent of their retail sales provided by renewable energy resources by 2030. In September 2018, Senate Bill (SB) 100 further increased the overall RPS requirement from 50 percent to 60 percent by 2030. This legislation also adopted a goal of 100 percent from renewable energy and zero-carbon resources by 2045.

1.3 General Facility Description, Design and Operation

1.3.1 Project Location, Land Ownership and Jurisdiction

The Project site would be on up to approximately 1,233 acres of federal land managed by BLM land located in the Pahrump Valley in Clark County, Nevada. The Project is located approximately 38 miles west of Las Vegas and southeast of the Town of Pahrump and is bordered on southeast by Tecopa Road and on the west by the Clark County/Nye County border. Project fencing would be set back 50 feet or more from Tecopa Road. The Project would interconnect at the planned Trout Canyon Substation at the intersection of SR-160 and Tecopa Road approximately 4.9 miles north of the site. All Project facilities would be located on lands administered by the BLM.

1.3.2 Legal Land Description of Facility

The Project is to be located on the BLM-managed lands described using the US Public Land Survey System listed in **Table 1-2**. A land surveyor would prepare a detailed legal description of the rights-of-way (ROWs) prior to issuance of the ROW grants.

			Table 1-2		
		LARREA SOLA	R PROJECT LAND DESCRIPTION		
Township	Range	Sections	Quarter Sections / Lots		
Solar Field					
		Section 29	W½, SW¼NE¼		
22 South	FF Fact	Section 30 Lot 1, Lot 2, Lot 3, Lot 4, SE ¹ /NE ¹ / ₄ SW ¹ / ₄ , SE ¹ / ₄ SW ¹ / ₄	Lot 1, Lot 2, Lot 3, Lot 4, SE¼, NW¼, SW¼NE¼, SE¼NE¼, NE¼SW¼, SE¼SW¼		
	JJ Last	Section 31	Lot 1, Lot 2, Lot 3, Lot 4, NE¼, NW¼SE¼, NE¼NW¼, SE¼NW¼, NE¼SW¼, SE¼SW¼		
		Section 32	NW¼NW¼		
23 South	55 East	Section 6	Lot 4		
			Gen-Tie Line		
		Section 29	SW¼NE¼, NW¼NE¼, NE¼NE¼		
		Section 20	SE¼SE¼, NE¼SE¼		
		Section 21	NW¼SW¼, SW¼NW¼, SE¼NW¼, NE¼NW¼		
	2 South 55 East Section Section Section	Section 16	SE¼SW¼, SW¼SE¼, NW¼SE¼, NE¼SE¼, SE¼NE¼, NE¼NE¼		
22 South		Section 15	NW¼NW¼		
		Section 10	SE¼SW¼, NE¼SW¼, NW¼SE¼, SW¼NE¼, NW¼NE¼, NE¼NE¼		
		Section 3	SE¼SE¼		
Based on Moun	t Diablo Meridia	Section 2	SW¼SW¼, NW¼SW¼, SW¼NW¼		

1.3.3 Facilities Summary

The Project would be a solar PV power generating facility. PV modules convert sunlight into direct current (DC) electricity that would be collected and converted to AC electricity though a system of inverters. Transformers would step up the AC electricity to 34.5 kV and the energy would be delivered to the onsite substation. There the electricity would be stepped up to 230 kV and then delivered to the Trout Canyon Substation - the Point of Interconnection (POI) - via a new 230 kV generation tie line (gentie). The physical specifications of the proposed Larrea Solar Project are outlined in **Table 1-3**.

	Table 1-3					
LARREA SOLAR PROJECT						
Project Characteristics						
Power Output Capacity						
Solar Field Footprint	Up to 1,055 acres					
Technology	Photovoltaic (PV) panels arranged in arrays					
Panel Mounting	Single-axis trackers or fixed-tilt					
Energy Collection System	DC collection lines, inverters/transformers, AC collection lines					
Battery Energy Storage System	Up to 820 MWh on up to 5 acres if AC-coupled					
Project Substation	Up to 3 acres					
O&M Building / Storage Area	Up to 3 acres					
Gen-tie Line between Onsite Subs	tation and Offsite Trout Canyon Substation					
Line length	Approximately 4.91 miles all on BLM-managed land or					
	within the Tecopa Road right-of-way					
Right-of-Way Acreage	144.93 acres					
Circuit configuration	One single or double circuit (three phases per circuit)					
Voltage	230 kV					
Type of Structure	Wooden or steel poles					
Typical structure height	Up to 120 feet					
Typical span lengths	350 feet					
Right-of-way width	300 feet					
Tensioning/Pulling Sites	Temporary ROW of 100x400 feet					
Access roads	12-foot-wide access road located within ROW, or 12-foot					
	spur roads off of Tecopa Road (entirely within requested					
	ROW)					
Maximum pole foundation	15 feet / 10 feet					
depth/diameter						

1.3.4 Power Plant Facilities Components

The selected Engineering, Procurement and Construction (EPC) contractor would prepare final design based on most appropriate technology available and final mitigation requirements incorporated into the ROD. Manufacturer, size, quantities and dimensions would vary somewhat based on vendors / technologies selected. The initial conceptual design layout shown in Section 6 could change somewhat but all facilities would be within the ROW boundaries as described in this POD.

Major components of the solar generating facility include the following:

• Solar arrays consisting of solar PV modules on fixed-tilt or single-axis horizontal tracker mounting systems attached to steel posts or other foundations. DC collection lines from each

module to PCS. Each solar array would connect to Power Conversion Stations (PCS) which includes inverter(s) that convert DC power to AC power, transformer(s) that step up the voltage to 34.5 kV, and other controls/data equipment. The Project could have arrays of 2 MW AC or more.

- Aboveground and underground 34.5 kV collection system from each PCS to the on-site substation.
- One onsite substation with one or more 34.5 kV to 230 kV transformers.
- Energy storage system and associated equipment.
- Operations and maintenance (O&M) area / building.
- Communications facilities
- Two or more permanent meteorological stations
- Site security and fencing

Ancillary components of the solar generating facility would include the following:

- 4.91 mile single or double circuit 230 kV gen-tie.
- Interconnection facilities at the Trout Canyon Substation
- Access driveway(s) from Tecopa Road, perimeter road and PCS access

Temporary construction components are described in Section 1.3.5. Construction of facilities would be conducted as described in Section 2 and operations and maintenance activities are described in Section 4.

1.3.5 Temporary Construction Workspace, Yards, Staging Areas

Temporary facilities would include areas for construction trailers and parking; storage areas for equipment, materials, recycling, and waste; laydown and assembly areas; pulling/tensioning areas along the gen-tie; water storage tank(s), seseptiptic system, generators/power service, and communications used during the construction phase. These areas would be located within the solar facility fence except for those areas associated with the gen-tie line, which would be located within the gen-tie portion of the ROW.

1.3.6 Studies and Data Needs

Geotechnical investigations would be conducted to support the design of the solar facilities and gen-tie line. The description and testing locations for the geotechnical studies would be provided to BLM under separate application.

Temporary meteorological stations could be installed for 18 months prior to construction to gather solar insolation and weather data. Two fenced areas would be installed to secure the meteorological equipment and connected with above-ground conduit. These would be removed before start of construction and would not be the permanent metrological stations. Description and locations of these pre-construction met stations would also be provided to BLM under separate application.

A water well could be drilled on site under separate application. If included, it would be installed and tested prior to construction.

1.3.7 Ancillary Facilities

1.3.7.1 Access

The Project would construct two access points from Cathedral Canyon Road and one entrance off of Tecopa Road to access the three anticipated blocks of arrays shown the attached maps. These short driveways would be 20 feet wide and cover the distance from the road to the Project boundary approximately 50 feet back with a paved surface or as required.

The Project would have perimeter road inside project fence. Typically, this road would be 20 feet wide with compacted soil surface. Gravel could be installed as needed.

Within the solar arrays, the Project would have access ways to each PCS. Typically, these would be a minimum of 12 feet wide with a compacted soil surface.

1.3.7.2 Operations Building Area

An operations area would be constructed near the entrance. This area would cover up to 3 acres and include an operations and maintenance (O&M) building, water storage, septic system, materials storage and parking. The O&M Area is shown on the conceptual site plan.

1.3.7.3 Battery Energy Storage System

The Project would include a battery energy storage system that would have a capacity of approximately 820 MWh. It would be either an AC-coupled or DC-coupled system as dictated by Applicant or customer preference. The AC-coupled system would occupy approximately 5 acres next to the site substation and would include equipment enclosures and/or buildings. If a DC-coupled system is used, battery units would be stored in containers adjacent to the PCSs in each solar array.

1.3.7.4 Communications

Communication service to the Project would be provided by local service providers and/or microwave tower. The Project would have onsite communication lines connecting the Project components. There would also be a fiber optic line included on the gen-tie line between the onsite substation and the interconnecting substation (Trout Canyon). Redundancy in the communication system would be provided as required by the Interconnection Agreement and/or power purchase agreement (PPA). Communications lines could be aboveground or underground.

1.3.7.5 Permanent Meteorological Stations

Two or more permanent meteorological stations would be installed on posts approximately 15 feet high within the Project site and would remain during Project operations. The quantity of met towers would be determined by requirements in the Interconnection Agreement and/or PPA.

1.3.8 Water Usage, Amounts, Sources

Water is not required for PV generation. The Project would require water during construction primarily for dust control as well as some minor consumptive use for concrete and other needs. Water consumption during operation would be relatively low and primarily for potable uses by site personnel and periodic washing of panels. Construction water needs are estimated to be up to approximately 400 acre-feet (AF). Estimated operational water requirements would be up to 8 acre-feet per year (AFY).

Water would be provided by either developing a well on-site or delivering water from a local provider to the site via truck or pipeline. If a water well is developed, it would be installed per State of Nevada requirements by a licensed well driller. Water lines and pumps could be installed to deliver water from

on-site water tanks to construction trailers and the operations building. Water treatment may be needed depending on water quality. Drinking water may be delivered to the site during construction and operations.

1.3.9 Erosion Control and Stormwater Drainage

A detailed hydrology study and erosion control plan would be prepared prior to construction as part of final design. The Project could include permanent or temporary drainage improvements to manage site flows. As mentioned above, water would be applied for dust control and BLM-approved palliatives could also be applied where needed. Project-specific Best Management Practices (BMPs) would be provided in the erosion control and hydrology/drainage plans.

1.3.10 Vegetation Treatment and Weed Management

Vegetation would be removed only where needed in the solar array for localized ground contouring and for construction and maintenance of access roads, buildings, equipment enclosures, the site substation, met stations, and where it could interfere with facility operations. In other areas, vegetation would be trimmed or mowed as needed for construction safety and allowed to re-grow to a height that would not interfere with facility operations or create a fire risk. Vegetation and weed management plans would be prepared for BLM review and approval prior to the start of construction.

1.3.11 Waste and Hazardous Materials Management

Recycled materials and waste would be collected and transported to appropriate facilities. Construction trailers and the operations building would either utilize portable toilets or have an onsite septic system designed per Clark County standards. The septic system, if utilized, would be located adjacent to the O&M building. Portable toilets and washing stations would be serviced by a contracted company.

A Hazardous Materials Management Plan for the limited hazardous materials expected to be used onsite would be prepared and provided to BLM for review and approval prior to the start of construction. Construction vehicles and generators would contain fuel and an onsite above ground fuel storage tank could be used. The design of the energy storage system would include materials management and containment system. Additional battery backups may be installed for critical components throughout the facility. Disposal of modules and batteries would be conducted to comply with applicable laws.

1.3.12 Fire Protection

Electrical equipment including inverters, transformers, and battery energy storage equipment would be housed in appropriately rated National Electric Manufacturers Association (NEMA) enclosures. Vegetation around buildings and equipment would be maintained to minimize fire risk. Water storage would be located in the O&M Area near the main entrance for fire and domestic use. A Fire Protection Plan would be provided to BLM for review and approval prior to the start of construction.

1.3.13 Site Security and Fencing

Site security would include fencing and possibly motion sensor lighting, onsite security guards, cameras and other technology during construction and operations. An approximately 3x4 foot sign would be installed directly to the fence at the site entrance with project contact information. Smaller signs, approximately 1x1 foot, would be attached periodically to the security fence with text warning of the high-voltage equipment contained within the site.

The Project perimeter fencing would be about 7 feet tall and may be chain-link or other design possibly with barbed wire on top. It could include tortoise exclusion fencing during construction and/or operations subject to BLM approval. The site substation would have additional fencing. Fencing would be grounded per industry standards.

Temporary construction fencing could be installed around the site and the construction logistics/storage facilities and/or around construction areas.

1.3.14 Electrical Components

The Project would include the following electrical components manufactured and installed per industry standards:

- PV modules
- DC collection system
- Inverters and medium voltage transformers
- AC collection system
- Energy storage system (AC or DC)
- One or more 230 kV high voltage transformer(s) within the substation
- Circuit breakers and associated protection equipment
- Two or more meters
- Supervisory Control and Data Acquisition (SCADA) control system
- Gen-tie line
- Auxiliary Power Service
- Emergency generator
- Backup battery systems on components

The interconnection study would determine any upgrades to the existing regional transmission system that could be required to facilitate interconnection of the Project.

1.3.15 Interconnection to Electrical Grid

The Project proposes to interconnect into the planned Gridliance Trout Canyon Substation at the intersection of SR 160 and Tecopa Road. The Project would include a 230-kV on-site substation and a single or double circuit 230 kV gen-tie line to the Point of Interconnection (POI) at the Trout Canyon Sub. The gen-tie would also include overhead and/or underground fiber optic communication lines as required by the Interconnection Agreement and/or PPA. The gen-tie would include an access road within the ROW for construction and maintenance, alternatively would include spur roads off of Tecopa Road to access each pole. The access road would originate within the solar array ROW and follow directly underneath the gen-tie line. The road would be approximately 12 feet wide and composed of compacted native soil.

1.3.16 Spill Prevention and Containment

The site substation would include a containment system designed for the high voltage transformer fluids. The fueling area for construction equipment and emergency generators would also include spill containment and prevention measures. A detailed Spill Prevention, Containment, and Countermeasure (SPCC) Plan outlining all these measures for construction and operation of the Project would be developed and provided to BLM for review and approval prior to construction.

1.3.17 Health and Safety Program

A Health and Safety Program (HASP) for the construction and operation of the Project would be provided to BLM for review and approval prior to the start of construction. This plan would include written safety programs and procedures, fire safety program, measures for working in the heat, hearing loss prevention, respiratory protection, heavy equipment procedures, and others. All onsite employees and contractors would be required to comply with the HASP.

1.4 Alternatives Considered by Proponent

Other site options for the solar site and route options for the gen-tie were considered for the Larrea Solar Project. Site options were discussed with BLM and included other federal lands in in Clark and Nye Counties in the vicinity of the point of interconnection (Trout Canyon Substation). After evaluating these sites, the proposed Larrea site was selected as the optimal location in Clark County for the project. Any other potentially viable solar sites or gen-tie routes would be evaluated as part of the NEPA process for this Project.

1.5 Other Federal, State and Local Agency Permit Requirements

Table 1-4 provides a list of other federal, state, and local permits and approvals that could be required for the Larrea Solar project.

	Table 1-4				
FEDERAL, STATE, A	ND LOCAL PERMITS / APPROVALS				
LARF	LARREA SOLAR PROJECT				
Agency	Permit / Approval				
Federal					
RIM	ROW Grant under Title V of FLPMA				
BEIVI	EIS to comply with NEPA, NHPA, ESA				
US Fish and Wildlife Service (USFWS)	Biological Opinion, Incidental Take Permit under Section 7 of ESA				
US Army Corps of Engineers (USACOE)	404 Permit under Section 404 of CWA				
National Park Service (NPS)	Consultation on potential impacts to Old Spanish National Historic Trail				
Federal Aviation Administration (FAA)	Determination of No Hazard				
Advisory Council on Historic Preservation	Consultation under Section 106 of the NHPA				
DoD Clearinghouse, Nellis Air Force Base	Consultation for potential conflicts with military uses				
State					
Nevada State Historic Preservation Office (SHPO)	Consultation under Section 106 of the NHPA				
Nevada Department of Wildlife (NDOW)	Consultation, Take Permit				
Nevada Department of Transportation (NDOT)	Occupancy Permit for facilities/activities within SR 160 ROW				
Public Utilities Commission (PUC)	Utilities Environmental Protection Act (UEPA) Permit				
Nevada Division of Forestry	Cacti and Yucca Salvage Permit				
Local					
Clark County Department of Air Quality	Dust Control Permit				
Clark County Regional Flood Control District	Drainage study review				

FEDERAL, STATE, A LARR	Table 1-4 ND LOCAL PERMITS / APPROVALS REA SOLAR PROJECT			
Agency Permit / Approval				
Clark County Department of Comprehensive Planning	Special Use Permit			
Clark County Building Department	Grading Permit, Building Permit			

1.6 Financial and Technical Capability of Proponent

The Applicant Naturgy Candela Devco, LLC and its development group Candela Renewables, is funded, and has access to construction and development capital, through a partnership with Naturgy Energy Group (Naturgy), a Spanish multinational electrical utilities company with more than 175 years of history, a BBB credit rating, and a ~\$20B market capitalization. Naturgy will take full financial responsibility for projects developed by the Applicant and will raise project-level financing as part of the commercialization process at NTP. Naturgy is expected to be the long-term owner of the projects. Naturgy has the resources and experience to undertake 100% of the construction of the project on balance sheet (i.e., cash) and, along with Candela Renewables, has proven experience raising tax equity and debt for large-scale renewable energy projects. Naturgy will also be the long-term owner of the Applicant's projects.

https://www.naturgy.com/en/shareholders_and_investors/financial_information

The Applicant, and its technical and advisory team, is technically and financially capable of completing the Larrea Solar Project as described in this application.

2 Construction of Facilities

2.1 Solar Field Design, Layout, Installation and Construction Processes Including Timetable and Sequence of Construction

Construction is estimated to take approximately 12 to 18 months. The preliminary construction schedule is outlined in **Table 2-1**. Construction on the solar site is expected to start with the installation of the perimeter fencing and the clearance of desert tortoises from the site. Site preparation and the installation of solar equipment is expected to move continuously across the site from one array to the next. Substation and gen-tie construction would occur in parallel with construction of the solar arrays.

The selected Engineering, Procurement and Construction (EPC) contractor would prepare the final design based on technology available and would determine construction methods. The layout, quantities, schedule and techniques may change. The EPC would provide a detailed construction schedule prior to the start of construction.

Tabl	e 2-1
PRELIMINARY CONST	TRUCTION SCHEDULE
Task	Schedule
[Water Well Drilling]	January 2026
Construction Start	January 2026
Perimeter Fence Installation	January 2026
Desert Tortoise Clearance	March 2026
Site Preparation	April 2026 – December 2026
Post installation	May 2026 – December 2026
Module installation	June 2026 – January 2027
PCS installation	June 2026 – January 2027
Substation installation	May 2026 – Dec 2026
Gen-tie installation	May 2026 – Dec 2026
Operations Building	March 2026 – September 2026
Commercial Operation Date	June 2027

2.2 Phasing

The Project is not planned to be phased unless commercially necessary to meet contractual requirements.

2.3 Access and Transportation System, Component Delivery, Worker Access

Access to the Larrea Project for component deliveries and worker access would be provided directly from Tecopa Road located adjacent to the northeastern boundary of the site. Components would be delivered to site and either unloaded at their installation location or at temporary laydown areas. Worker vehicles would be parked in a temporary construction parking area. Onsite vehicles or ATVs would transport workers to work areas around the site.

2.4 Construction Work Force Numbers, Vehicles, Equipment, Timeframes

The average estimated construction work force would be expected to be up to approximately 300 workers. Construction traffic to the site would include commuting construction workers and the delivery of materials and equipment. Workers would commute daily and could carpool. Materials would be delivered to the site during construction periodically throughout the day via trucks. Once delivered to the site, construction equipment would be used on site for the construction phase and transported off when no longer needed for construction. On-site construction equipment may include tractors, disk/tillers, vibratory rollers, excavators, graders, dump trucks, end loaders, trenching machines, pumps, augers, pile-drivers, forklifts, water trucks, cranes, a variety of truck mounted equipment, and additional support vehicles. Construction would be conducted typically during daylight hours on weekdays. Weekend and nighttime construction activities could be needed.

2.5 Site Preparation

A land surveyor would stake the boundaries of site and the locations of all facilities. Prior to construction, desert tortoise surveys and relocation would be conducted as needed. Temporary or permanent fencing would be installed around the solar site and biologists would locate desert tortoise on the site and relocate them in accordance to a translocation plan developed in coordination with the BLM and US Fish and Wildlife Service. Once the fenced area has been cleared of tortoises, site preparation would be initiated.

2.6 Site Clearing, Grading and Excavation

After the site preparation described above is completed, vegetation would be removed only as needed for construction and maintenance. This is expected to occur for locations of access roads, buildings, equipment enclosures, substation, met stations, firebreaks, where it could interfere with facility operations and for localized ground contouring as necessary within the solar array. In other areas, vegetation would be trimmed or mowed as needed for construction safety. Limited grading would occur for roads and foundations. A detailed grading plan would be provided as part of the final site plan provided to BLM for review and approval prior to NTP. Trenching and excavation for foundations, underground electrical components, drainage improvements, septic system, etc. would be performed using appropriate equipment. The geotechnical investigation data would determine foundation and compaction requirements.

2.7 Solar Equipment Installation

Construction of the solar field would occur by arrays across the solar site. Steel posts would be driven into ground at surveyed locations and per design. Drilling into rock may be required if encountered. Trenching and underground cable installation may occur in parallel. The single-axis tracking or fixed-tilt mounting system would be assembled and secured onto posts. Then PV modules would be installed on the mounting system along with the wiring to connect them. Inspection of each system would occur before terminations are made and commissioning of each array would be performed per specifications at energization.

2.7.1 PCS

Power Conversion Stations (PCS) typically include inverter(s), transformer(s), and related equipment. If the energy storage system is designed as a DC-coupled system, a DC energy storage component would

be added at these locations. PCSs are delivered on one or more skids and lifted by crane into position. Equipment would be grounded and inspection of the system would be conducted before terminations are made. Commissioning of each PCS would be performed per specifications at energization. Switchgear may be included in design to collect the energy produced by blocks of arrays.

2.7.2 Collection System Construction

An electrical collection system would be installed aboveground or underground in the array areas to deliver the energy generated by the PV panels to the PCSs. Where trenching is required, trenches would be excavated, conductors installed and backfilled with riser structures installed to transition to overhead poles.

Aboveground or underground collection lines would be built to deliver the energy from the PCSs to the site substation. Aboveground collection lines would be installed similarly to the gen-tie line. Collection line poles may be steel or wood and could have multiple circuits on poles with insulating conductors.

2.7.3 Substation Construction

Construction of the onsite substation would be initiated with grading, installation of grounding grid and underground conduit, backfilling, and compaction. Concrete foundations and containment systems would then be installed followed by electrical structural equipment including lightening protection. Transformer, breakers, and other equipment enclosures would be installed on to foundations. Fencing would be installed around the entire substation site. Underground and overhead cabling would be installed and terminated with inspection, testing and commissioning of equipment conducted at energization per the Interconnection Agreement.

2.7.4 Gen-tie Line Construction

To build the gen-tie, construction equipment access would be required at each transmission structure. The Project would develop a new access road or improve an existing road within the gen-tie ROW to get construction equipment to each structure location. The access road would typically be about 12 feet wide and bladed and compacted if needed to ensure stability. The access road would be left in place for inspections but less maintained following construction. Construction vehicles would access the gen-tie service road within the ROW from the solar site on the northwestern end of the gen-tie route.

An approximately 100-foot by 400-foot area would be needed around each structure sites for construction which would be temporarily disturbed and cleared of vegetation only as required for safety and efficiency. Holes would be developed for each transmission structure using a drill or auger rig with drilling and blasting of rock possibly needed. The poles would be direct imbedded or placed on a concrete pier foundation with foundations ranging in size from approximately 6 to 12 feet in diameter and from 15 to 50 feet in depth.

Structures would be staged in designated laydown/stringing areas or delivered and unloaded adjacent to their respective final locations. Poles would be delivered on a flat-bed trailer and lifted into place using a crane. After the structures are erected, the conductors and static wires would be strung between them and attached. Temporary pulling and tensioning sites would be located to pull the conductors and wires into place and these sites would be approximately 100 feet wide by 205 feet long and located within the ROW except at angle structures where they would be at least partially outside the ROW.

2.8 Gravel, Aggregate, Concrete Needs and Sources

Gravel and aggregate could be used for access roads, parking, foundations, trenches, stormwater protection and erosion control. Solar and electrical equipment could have pre-cast concrete bases or concrete could be delivered to site. These materials would be sourced from local providers that would be identified prior to construction.

2.9 Construction Power

Construction power would be provided by a local electrical service provider via distribution line or by onsite generators. If a construction power service main is developed, it would remain in place during operations for the O&M building.

2.10Aviation Lighting

The Project would comply with Federal Aviation Administration (FAA) standards for marking and lighting of structures if needed. The Project is not expected to include any structures (over 200 feet) that would require FAA approval.

2.11 Stabilization, Protection, and Reclamation Practices

The Project would comply with plans for stabilization and protection and apply Best Management Practices (BMPs) throughout construction and operations. During and following construction of onsite and offsite facilities, appropriate water erosion and dust-control measures would be implemented to prevent increased dust and erosion. Dust generated by construction would be controlled and minimized by applying water and, if needed, BLM-approved palliatives could be applied to newly constructed interior access roads after they are constructed.

Soil stabilization measures outlined in a stormwater management plan (SWPPP) would be used to prevent soil being eroded by stormwater runoff during construction. The Applicant would implement a Site Restoration and Revegetation Plan immediately after construction that would identify all measures to stabilize and revegetate disturbed areas.

After the Project's useful life, the Project would be decommissioned and existing facilities and equipment would be removed. Decommissioning would involve removal of the solar arrays and other facilities with some buried components (such as cabling) potentially remaining in place. Following decommissioning, the solar site would be reclaimed and restored according to applicable regulations at the time. A final decommissioning plan would be prepared in coordination with the BLM and implemented at end of Project. The final plan would address future land use plans, removal of hazardous materials, impacts and mitigation associated with closure activities, schedule of closure activities, equipment to remain on the site, and conformance with applicable regulatory requirements and resource plans.

3 Related Facilities and Systems

3.1 Transmission System Interconnect

3.1.1 Proposed Transmission System

The Project would construct a single or double circuit 230kV transmission line (gen-tie) to the planned Trout Canyon Substation located approximately 4.9 miles southeast of the solar site. Associated communication lines would be installed overhead and/or underground.

3.1.2 Ancillary Facilities and Substations

The interconnection studies conducted for the Project would determine if ancillary transmission facilities and /or improvements to the Trout Canyon Substation or other system facilities would be needed to facilitate interconnection.

3.1.3 Status of Power Purchase Agreements

The Project is actively seeking Power Purchase Agreements (PPAs) for offtake of electricity generated by the solar facility.

3.1.4 Status of Interconnect Agreement

A Large Generator Interconnection Request was submitted to the California Independent System Operator (CAISO) and GridLiance in April 2019. The Project expects to sign a Large Generator Interconnection Agreement in the fourth quarter of 2022.

3.1.5 General Design and Construction Standards

The Project would be designed in accordance with latest federal, state, and local requirements and industry standards, as applicable. Best management practices (BMPs) would be used during construction and operations. The following plans would be prepared prior to the issuance of the ROD for the Project, incorporated into the design features for the Project, and implemented during construction and operation:

- Dust Control Plan
- Erosion and Sediment Control Plan / Stormwater Pollution Prevention Plan (SWPPP)
- Spill Prevention, Control, and Countermeasures (SPCC) Plan
- Health and Safety Plan
- Fire Management Plan
- Vegetation Management Plan
- Site Restoration and Revegetation Plan
- Integrated Weed Management Plan
- Integrated Pest Management Plan
- Desert Tortoise Translocation Plan
- Bird and Bat Conservation Strategy
- Cultural Resources Unanticipated Discovery Plan
- Traffic Control Plan
- Worker Environmental Awareness Plan (WEAP)
- Hazardous Materials Management Plan
- Decommissioning Plan

3.2 Gas Supply Systems

A natural gas supply system would not be needed for the Project. Fuel for construction and emergency generators would be delivered to the site as needed.

3.3 Other Related Systems

3.3.1 Communications system requirements

The Project would utilize a supervisory control and data acquisition (SCADA) system to manage operations. This would require fiber optic and / or microwave communication systems to collect and control data on the site and communicate with the grid. Microwave would be installed on a tower within the site substation.

During construction, contractors would use temporary wired or wireless communication lines. They also could use the permanent communication systems after they are installed.

4 Operations and Maintenance

4.1.1 Operation and Facility Maintenance Needs

The O&M requirements for a PV solar generation facility includes regular monitoring, periodic inspections, and conducting any needed maintenance and repairs. The Larrea Solar Project is expected to be energized continuously with generation from sunlight or from energy storage or backfeed from the gen-tie. Remote monitoring of the operations would provide safety and optimization controls plus provide reporting and alerts. Any outages for maintenance would typically be scheduled during the nighttime and local task lighting would be used in the specific area of work.

The O&M building would house the administrative and management activities as well as store parts and materials.

4.1.2 Maintenance Activities

The Project would have routine inspections of components based on maintenance program schedule and as the monitoring schedule indicates. In addition, the Project fences, road, gen-tie and drainage facilities would be inspected after significant weather events. Repairs would be performed by the O&M workforce or contracted specialists as needed.

PV module washing could occur periodically using onsite water or water trucked or piped to the site. Based on the quality of the water, a temporary treatment system could be included.

4.1.3 Operations Workforce and Equipment

The operations workforce is estimated to be up to approximately 10 workers. This workforce would include administrative and management personnel, operators, and security and maintenance personnel. Operation and maintenance would require the use of vehicles and equipment for minor equipment maintenance. Maintenance equipment would include forklifts, manlifts, and potential chemical application equipment for weed abatement. Pick-up trucks and ATVs would be used daily on the site. No heavy equipment would be used during normal plant operation but would be brought in only when needed for repairs or replacements.

5 Environmental Considerations and Other Resources

5.1 General Description of Site Characteristics and Potential Environmental Issues

5.1.1 Special or Sensitive Species and Habitats

The Larrea Solar Project is located within suitable habitat for the federally threatened desert tortoise (*Gopherus agassizii*). Construction and operation of the Project could negatively impact individual desert tortoises. A Biological Assessment (BA) in accordance with Section 7 of the Endangered Species Act (ESA) would be developed in consultation with the U.S. Fish and Wildlife Service (USFWS) to address the potential effects to the desert tortoise. The BA would include mitigation measures designed to minimize impacts to the desert tortoise. The USFWS would issue a Biological Opinion (BO) for the project identifying all required mitigation and conservation measures. A key measure of the assessment and BO for desert tortoise would be a translocation plan that would identify the details of handling and moving tortoises that would be affected.

5.1.2 Special Land Use Designations

There are no special land use designations on the lands that would be directly affected by the Project or in the immediate vicinity. There are no nearby Areas of Critical Environmental Concern (ACECs), wilderness or wilderness study areas, wild and scenic rivers, or Special Recreation Management Areas (SRMAs).

5.1.3 Visual Resource Management (VRM) Designations

Visual resource management classes are categories assigned to BLM-managed lands that portray the relative value of the visual resources and the associated visual management objectives. One of four VRM classes, (I, II, III, IV) is assigned to an area. VRM Class I areas have the most valuable visual resources and VRM Class IV areas have the least. The VRM classes guide future land management actions and subsequent site-specific implementation decisions.

The lands affected by the Larrea solar site and gen-tie are managed as visual resource management (VRM) Class III. Class IV lands are located southwest of the site. The objective for Class III lands is to partially retain the existing character of the landscape with the level of change to be moderate. The primary potential viewers of this Project would be motorists traveling on Tecopa Road where there are existing transmission lines and other proposed solar projects.

5.1.4 Cultural and Historic Resource Sites and Values

Cultural resources are defined as buildings, sites, structures, or objects that have historical, architectural, archaeological, cultural, and/or scientific importance. Generally, prehistoric sites across the Great Basin and the greater American Southwest exhibit the presence of humans during the late Pleistocene 15,000 years ago. Around 1,500 years ago, the Ancestral Puebloan inhabitants of the greater southwest came into the vicinity.

A cultural resources records search would be conducted through the SHPOs Nevada Cultural Resource Information System (NVCRIS) to identify previous cultural resource projects and archaeological sites within the Project Area. A Class III Cultural Resources Inventory would be completed in consultation with the BLM to identify the cultural resources that occur within the Project's area of potential effect (APE). The resulting information would be utilized by the BLM to determine project-specific measures necessary to reduce potential impacts to cultural resources. To the extent feasible, significant cultural resources would be avoided and, if they cannot be avoided, appropriate mitigation would be developed.

5.1.5 Native American Tribal Concerns

The BLM would conduct government-to-government consultations with Native American tribes in the region with traditional interests in the area inquiring about potential concerns about the effects of the proposed Project on historic properties or areas of traditional or cultural importance. If Tribal concerns are identified within the Project area, they would be avoided to the extent feasible or mitigation could be implemented as necessary.

5.1.6 Hydrology and Water Quality

There are several ephemeral washes that cross the Project area flowing to the southwest. These drainages appear to terminate in a closed basin. Typically, channels that flow into a closed basin are not jurisdictional by the Corps of Engineers under section 404 of the Clean Water Act. But because the closed basin straddles the State line, these drainages could potentially be jurisdictional.

5.1.7 Vegetation, Invasive Plants / Noxious Weeds

General vegetation in the region consists mainly of Sonora-Mojave Creosote bush-White Bursage Desert Scrub. The creosote-bursage occurs in broad valleys, lower bajadas, plains, and low hills in the Mojave Desert and lower Sonoran Desert. The BLM and the State of Nevada have protections for cactus and yucca species.

The BLM and State also regulate and manage invasive plant species. The BLM would require development and implementation of a Restoration and Revegetation Plan and an Integrated Weed Management Plan to reduce potential impacts from invasive plants and noxious weed species.

5.1.8 Air Quality

Construction and operation of the Project would result in the generation of dust and tailpipe emissions from vehicle traffic. There would be an increase in dust emissions during construction activities that would be mitigated by the application of best management practices outlined within a Fugitive Dust Plan developed to satisfy BLM and Clark County requirements. Disturbed areas would be watered as necessary to suppress dust during construction and operation.

5.1.9 Recreation

There are no Special Recreation Management Areas (SRMAs) located in the vicinity of the proposed Project. Off-highway vehicle (OHV) use in this area is limited to existing roads, trails, and dry washes in this area.

5.1.10 Socioeconomics

Socioeconomic impacts generated from the Project would primarily be positive. The Project would create jobs for the local and regional population during construction and, to a lesser extent, during operation. There would be short-term traffic impacts generated by the transportation of workers and equipment to the site during construction.

5.2 Mitigation Measures Proposed by Applicant

As stated earlier, the Applicant would develop and implement many mitigation plans and conservation measures to minimize the environmental impacts from construction and operation of the Project. These

plans are repeated below and would become part of the Final POD for the Project reviewed and approved by the BLM prior to the initiation of construction:

- Dust Control Plan
- Erosion and Sediment Control Plan / Stormwater Pollution Prevention Plan (SWPPP)
- Spill Prevention, Control, and Countermeasures (SPCC) Plan
- Health and Safety Plan
- Fire Management Plan
- Vegetation Management Plan
- Site Restoration and Revegetation Plan
- Integrated Weed Management Plan
- Integrated Pest Management Plan
- Desert Tortoise Translocation Plan
- Bird and Bat Conservation Strategy
- Cultural Resources Unanticipated Discovery Plan
- Traffic Control Plan
- Worker Environmental Awareness Plan (WEAP)
- Hazardous Materials Management Plan
- Decommissioning Plan

6 Maps and Drawings

Attached are several figures that outline the location and proposed layout of the Larrea Solar Project.

Larrea Solar Project



Module Power Module Type Slope Exclusion

1 67 MW-AC 220 MW-DC 1.32 36% 540W Bificial c:Si PERC



Larrea Solar Project





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TOWNSHIP 22 SOUTH RANGE 55 EAST OF THE MOUNT DIABLO MERIDIAN, NEVADA



STATUS OF PUBLIC DOMAIN LAND AND MINERAL TITLES AND ACQUIRED LANDS MT SUPPL SECS 2, 3, 10, 11

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