Shiprock Solar Facility

Preliminary Plan of Development

Prepared By:

Shiprock Solar, LLC
2279 North University Pkwy
Suite 4881
Provo, UT 84604

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1. Introduction

1.1 Solar Energy Plan of Development

The following Plan incorporates the usual requirements for a Solar Energy Plan of Development (POD) to be submitted prior to initiation of National Environmental Policy Act (NEPA) analysis (including publication of a Notice of Intent to prepare an environmental Impact Statement, if necessary) for a solar energy development project. A POD is required for both a solar energy non- competitive right-of-way application (43 CFR 2804) or a solar energy competitive right-of-way lease (43 CFR 2809). These requirements provide the basic information necessary to begin the NEPA analysis and review process for a proposed solar energy project as part of a non-competitive right-of-way application or a proposed project within an issued competitive right-of-way lease.

The Solar Energy POD is a dynamic document that may require additional information during the NEPA review and analysis process as project development plans change. The POD may require different information from the proponent as the project advances depending upon the solar technology, the environmental resources that may be impacted, the exact location of the proposed project, and the timing of construction, for example. As details related to design and construction of the proposed action are developed, this POD may be amended to provide more details related to construction, operation, and maintenance of the proposed Project. This document will be developed in coordination with the BLM to become part of the final authorization of the Project.

1.2 Due Diligence

A solar energy non-competitive right-of-way applicant is required by the regulations (43 CFR 2804.12(b)(1)) to submit with the right-of-way application a general description of the proposed project and a schedule for the submission of a more complete POD. The BLM will not begin processing the application until submittal of the more complete POD. During the NEPA review process for the application additional information may be requested of the applicant. If the BLM needs more information as part of the POD, the BLM will identify this information in a written deficiency notice asking the applicant to provide the additional information within a specified period of time (43 CFR 2804.25(c)). The applicant is also required by the regulations (43 CFR 2804.25(c)(1)) to commence any required resource surveys or inventories within one year of the request date from the BLM. A 30-day show cause letter will be provided to the applicant prior to issuing any decision to reject the application for failure to respond to a deficiency notice regarding the POD (43 CFR 2804.26(a)) pursuant to the regulations (43 CFR 2804.25[b] and 2804.26[a]).

A solar energy competitive right-of-way lease holder is required by the regulations (43 CFR 2809.18(c)) to submit a complete POD within 2 years of the lease issuance date. The BLM will not begin the NEPA review process for the proposed solar energy development project within the issued lease until submittal of the complete POD. During the NEPA review process for the POD additional information may be requested of the lease holder. If the BLM needs more information as part of the POD, the BLM will identify this information in a written deficiency notice asking the lease holder to provide the additional

information within a specified period of time. A 30-day show cause letter will be provided to the lease holder prior to issuing any decision to suspend or terminate the lease.

1.3 Supplementary Information

Additional Supplementary Information (Appendix B) will be required to complete the final NEPA and approval process. Alternative designs, design features and mitigation measures developed in the NEPA analysis will be incorporated into a final POD as part of the final decision package. Additional environmental information and data (including wildlife surveys, sensitive plants and cultural resource surveys) collected by the proponent will also be required as part of the final NEPA analysis and approval process.

2. Approval Process

2.1 Introduction

The Shiprock Solar Project involves the construction of a 372-megawatt (MW) solar and battery storage facility located in San Juan County, New Mexico (Project). The Project will encompass approximately 2,535 acres; 1980 acres on BLM land and 555 acres of private land (Figure 1). The proposed facility would connect to the existing Western Area Power Administration (WAPA) Shiprock Substation via a 345kV transmission line as the first option for interconnection (using Main Collector Substation Location near WAPA station) or to PNM's San Juan 345KV station as second option (using the alternative location for the Main Collector Substation). Approximately 4,400 feet of the proposed 345 kV transmission line connecting to the WAPA substation would be located outside of the boundary of the Shiprock Solar Project. All transmission lines connecting to the PNM's substation would be located within the boundary of the solar project area.

The Project's interconnection request identification number is 2018-05 for WAPA interconnection and IA-PNM-2017-13 for PNM. The in-service date is expected in December 2021. The Project will initiate preliminary engineering and environmental permitting due diligence in 4Q 2019 after completion of the Project's System Impact Study. We understand that WAPA as a Federal agency will have similar entitlement requirements and understand that WAPA and BLM coordinate those entitlement requirements. Land acquisition, state and federal permitting, ROW permits, natural and cultural resource investigation, and NEPA processes (should they be required) are scheduled for 1Q2020 with construction starting in 4Q2020 and a fully operational facility by 4Q2021.

2.2 Proponents Purpose and Need for the Project

The proposed action (Right-of-Way Grant) will provide the necessary land and access for the operation of a 372 megawatt (MW) solar and battery storage facility and interconnection to existing distribution lines. The PNM San Juan Generating Station (SJGS) is currently being phased out and therefore power generated from the proposal solar facility will replace coal power produced at San Juan.

2.3 General Facility Description, Design, and Operation

The proposed solar facility would be constructed and operated by Shiprock Solar, LLC, a subsidiary of Photosol. The Project would occupy approximately 2,535 acres, 3 miles north of Waterflow, New Mexico (Figure 1). The solar generating facility would consist of multiple parallel rows of photovoltaic (PV) panels on single-axis tracking structures, direct current (DC) to alternating current (AC) inverters, transformers, underground and overhead 34.5kV collection system, on-site substation, and a 345kV interconnection to the existing Shiprock Substation or San Juan Switching Station. Total buildable area is approximated to be 2,415 acres with approximately 13 distinctive areas each area behind an 8-foot chain link perimeter fence. The legal description for the facility may be found in Appendix A.

Temporary construction workspace, staging areas, laydown yards, access roads, operation and maintenance area, drainage controls, and 20-feet wide fire break will be located within the fenced area.

The Project operations and maintenance (O&M) area would contain an O&M building 50 feet by 30 feet with a height of approximately 15 feet. The O&M building would house administrative staff, maintenance facilities, and ancillary support systems such as water treatment and component storage. The main Control Room housing the main supervisory control and data acquisition (SCADA) system will be housed within the O&M building. A gravel parking lot would be constructed adjacent to the building, capable of holding up to 20 vehicles.

The Project will require a temporary water source for fire protection systems as well as provide dust control along access roads and solar facility development areas during construction. Water source and amounts required are unknown at this time.

The majority of the site would drain naturally as sheet flow to the existing large, ephemeral drainage feature east of the site or south to an existing impoundment. The drainage plan would use berm-like structures to slow excessive runoff on the eastern side of the site where elevations decrease and flatten prior to discharge at culverts along existing roads at the Shiprock Substation.

2.4 Alternatives Considered by the Proponent

The proposed action would be in compliance with all relevant federal, state, and local plans, statutes, and regulations. Table 1 presents the federal, state, and local agency approvals, reviews, and permitting requirements anticipated for the Project.

Table 1. Anticipated Federal, State, and Local Agency Approvals, Reviews, and Permitting Requirements

Action Requiring Permit, Approval, or Review	Permit/Approval or Review	Accepting Authority/ Approving Agency
Federal		
SF299 – Application for new ROW	ROW Grant	BLM
National Environmental Policy Act compliance to process ROW application	Environmental Assessment or Environmental Impact Statement	BLM and coordinating agencies
National Historic Preservation Act compliance to process ROW application	Clearance under Section 106 of the National Historic Preservation Act	BLM/State Historic Preservation Office
Endangered Species Act compliance	Biological Assessment / Biological Opinion (Section 7 ESA)	U.S. Fish and Wildlife Service
Clean Water Act (CWA) §402	NMR100000 Construction Stormwater General Permit	U.S. EPA – Region 9
Clean Water Act (CWA) §404	Nationwide Permit 51 - Land-Based Renewable Energy Generation Facilities	U.S. Army Corps of Engineers – Albuquerque District

Action Requiring Permit, Approval, or Review	Permit/Approval or Review	Accepting Authority/ Approving Agency
State		
Threatened & Endangered Species Act compliance	New Mexico Wildlife Conservation	New Mexico Game & Fish
San Juan County		
Commercial Construction within unincorporated areas of San Juan County	Commercial Construction Permit / Electrical Permit	San Juan County – Building Division

2.5 Financial and Technical Capability of Proponent

When processing an application or permitting use of the public lands, the Bureau of Land Management (BLM) must evaluate the technical and financial capabilities of an applicant or holder of a ROW grant or lease in accordance with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1764(J)) (FLPMA).

The Project is being co-developed by a consortium of experienced developers, including Photosol, Panorama Company, and Case Investments, who have been successful in developing in aggregate more than 3,100 MW of solar projects in the Americas and in France. Photosol has over 4,800 MW of solar projects in development throughout the US.

Photosol, the Project sponsor, is a large independent French solar developer who owns 300 MW of solar PV projects in operation in France and 80 MW of ready to build projects, with more than 6,000 MW under development in France and the US. The Group is managed by a lean team of skilled and experienced professionals that oversees the assets and the pipeline of projects. It employs today a total of 50 people (developers, engineers, technicians, accountants, in-house counsel, financial and renewable energy experts). As of July 2018, Photosol is the second largest solar energy producer in France. Photosol had 2018 net revenues of 33 million Euros.

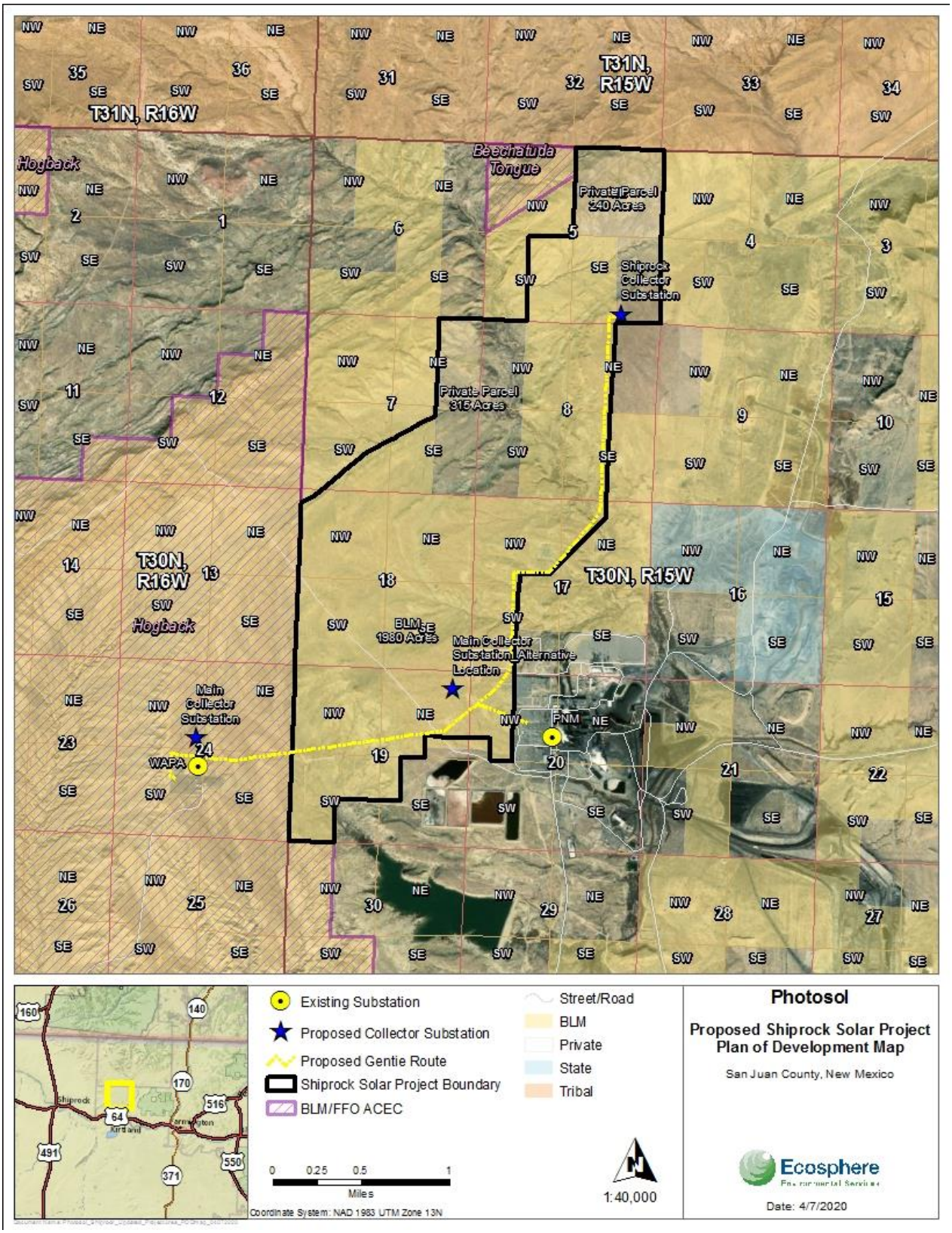


Figure 1. Proposed Shiprock Solar Project

3. Construction of the Facilities

Access to the site is available via a well maintained 25-foot-wide dirt road that connects to County Road 6800. The Project access road may be improved with rock or gravel to reduce impacts related to dust during high traffic volumes.

Construction would initiate with staking and flagging of the perimeter fence and then installation of the 8-foot security fence and grading of perimeter roads. A biological and/or cultural resource monitor may be presence during initial grading and excavation if studies determine reasonable threats to natural and cultural resources. After completion of perimeter fence and boundary road activities would commence to prepare the laydown areas, O&M area, parking, and substation. These areas would be cleared and grubbed of vegetation. Construction entrance and exit gates would be established.

Vegetation Clearing and Grading

Vegetation would not be removed from the solar facility area unless it is located along planned access or maintenance roads, or the area requires grading to ensure stable or level area for PV module construction. All vegetation cleared from the site will be hauled to a nearby compost facility. Vegetation that interferes with PV modules will be trimmed or mowed to 12 inches. Sensitive cacti and yucca may be relocated from impacted areas prior to construction in accordance with agency opinion.

Noxious Weed Control

A Weed Management Plan would be prepared and submitted to the BLM for review and approval before construction begins. A Weed Management Plan is a planning document that acknowledges and assesses the realities of weed risk and treatment obstacles. The Plan will recognize the Proposed Project's impact on vegetation and define the expected treatments and activities necessary to both maintain the determined desired conditions for the vegetation community around the solar facility and control the weeds that may arise within the Project footprint. In lieu of a completed weed plan at this date, the weed control expectations and requirements are summarized as follows:

- Weed seed production and/or plant growth will be controlled or eradicated in a manner established by the BLM on the BLM ROW.
- Established noxious weeds and invasive species within the proposed Project's pre-existing footprint will be controlled to a level equal to or below that of the original site or adjacent lands.
- Herbicide use for noxious weeds and invasive species will be restricted to areas within the fenced solar facility.

Firebreak

A 20-foot wide firebreak will be constructed around or within the perimeter of the solar facility boundary to prevent wildfire from entering or exiting the site. Construction of the firebreak would require removal of all vegetation through discing or use of a grader. The firebreak will not be constructed within the high banks or established channels of ephemeral washes.

Dust Control

The construction phase of the proposed Project would temporarily cause fugitive dust related to grading, vehicle traffic, drilling bore holes, and other construction activities. Dust control measures, to be outlined in a Storm Water Pollution Prevention Plan, will be in compliance with New Mexico and Region 9 EPA requirements. Binding agents and chemicals may be used on access roads if studies show no habitat for threatened and endangered species exist on or near site. The following BMPs would be incorporated to minimize fugitive dust and wind erosion:

- Minimize grading and vegetation removal.
- In areas where vegetation removal and/or grading is required, delay the process of vegetation remove to the maximum time required prior to module installation.
- Limit vehicle speed on access road and on solar facility roads to 15 mph.
- Apply water to disturbed soil areas using water trucks to control dust and maintain proper moisture levels for soil compaction. Minimize over application of water to prevent runoff and ponding.
- Suspend excavation and grading during periods of high wind.
- Cover all trucks hauling soil or other loose material in and out of the proposed Project site.
- Gravel or aggregate should be used where access roads meet paved roads to limit offsite disturbance and prevent mud and dirt track-out.

Substation and Switchyard Construction

After clearing, grubbing and grading, the substation area (approximately 15 acres in size) would be excavated to a maximum depth of 10 feet for large transformer foundations and switch gear. A copper grounding grid would be installed and the foundations for transformers and metal structures would be poured. The area(s) would be backfilled, compacted, and leveled. A 6-inch layer of aggregate would be uniformly distributed across the entire substation area.

Installation of the transformers, breakers, busswork, and metal dead-end structures would follow. A prefabricated Control House would be installed in the O&M building to house the electronic components required of the substation and switchyard equipment.

Switchyard construction would consist of site grading, concrete equipment foundations, crane placed electrical and structural equipment, underground and overhead cabling and cable termination, ground grid trenching and termination, control building erection, and installation of all associated systems including heating, ventilation, air conditioning, distribution panels, lighting, communications and control systems, and lightning protection.

Transmission Line Poles

All structures for the 345-kV transmission line will be constructed of either galvanized or weathering steel poles or lattice steel towers similar to what is currently used within the utility corridor. The final finish of the structures will be determined as part of the detailed design process.

A detailed geotechnical specification would be required to provide the basis for foundation design for the Project. It is expected that foundations for the project will be designed as steel-reinforced drilled concrete pier foundations. Steel reinforcement shall be in the form of Grade 60 reinforcing bars that conform to ASTM A615. Soil shall be tested for contamination as well as soluble sulfate and soluble chloride ion content as part of the geotechnical investigation to determine the type of cement to be used; however, experience in the project area has shown that concrete based on Type II cement should be adequate. Design compressive strength for steel reinforced DCP foundations shall be a minimum of 4000 psi.

34.5 kV Transmission Lines

The 34.5 kV output from each medium-voltage transformer would be "daisy-chained" together using a combination of underground trenched conductors and above-ground overhead lines. The daisy-chain method involves running a wire from the transformer into the field with transformers spliced into this wire along its length. Transformers for this application would be ordered as loop-feed transformers, meaning that they would have two sets of medium-voltage bushings. Each transformer would connect to the transformers from adjacent blocks, except for the last transformer in each circuit, which only connects to one other transformer. Each underground circuit would collect up to 30 MW of transformers in this configuration before transitioning to overhead conductors. At the underground-overhead transition, a pole- mounted, visible disconnect switch would be used to isolate conductors for service.

Conductor Stringing

Conductor stringing would likely be done one phase at a time, with all equipment in the same operational place until all phases of that operation are strung. The sequence of conductor stringing is summarized below:

- **Finger Lines**: The finger line is used to pull the later pilot line through travelers installed on each davit arm. The finger line is typically a small diameter synthetic rope that can be pulled by hand or with a crawler tractor.
- **Pilot Lines**: The finger line, once in place, is used to pull the pilot line, which is a larger synthetic rope or small steel line. This requires a vehicle at each side of the pulling area, a Bullwheel tensioner truck doing the pulling of the pilot line, and a drum puller truck on the other side holding the reel.
- **Conductor**: Using the pilot line, the conductor is pulled through. Other activities may include offset clipping if suspension insulators are not plumb or splicing together two reels of conductor. Once complete, the traveler equipment would be removed.
- **Tensioning**: After the conductor is completely strung through a section, the section is tensioned to comply with design specifications. Once the conductor has been tensioned or loosened to meet the appropriate sag specification given the ambient temperature, the dead-end clamps would be tightened.

Solar Array Assembly and Construction

Solar Field

Pre-assembly of solar arrays would be completed prior to delivery or finished in designated areas using tent structures described above. Assembled solar equipment would be installed on metal poles or on pre-cast concrete foundation and ballast systems to form a row of panels. Special trucks would be used to transport and complete assembly of PV panels in the field. Small mobile cranes may be used to lift, guide, and place structures into place. Trenchers would be used to bury connecting wires that lead to the transformers, where applicable. Other equipment that may be used to complete PV installation include welding machines, forklifts, and tractors.

PV Equipment Installation

The solar field would be constructed in 0.5 MW (500 Kw) blocks (Figure 2). Each block would be approximately 280 feet by 10 feet and would contain 900 solar modules, a set of inverters, and a medium voltage transformer. Temporary laydown areas near each block would be used to finish assembly and erect the block. The sub-surface soil condition of the site is primarily composed of a thick layer of hard caliche, which is difficult to drill at thick layers. Therefore, vertical fixed tilt and tracker poles will be installed using a direct drill and placement with cementing materials or pre-cast ballasts where drilling is not practical. Drilled holes 6 to 8-foot deep would be completed using track or tired vehicle drilling rigs.

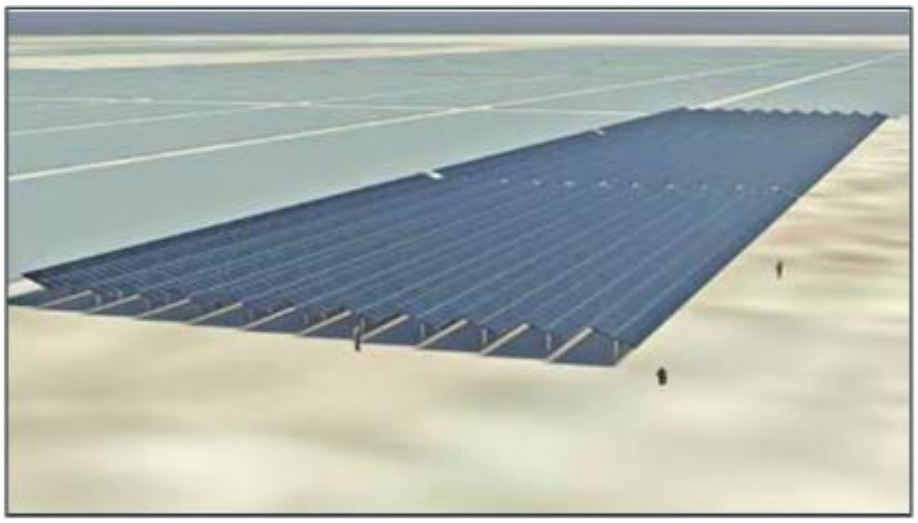


Figure 2. Typical Solar Block

The inverter/transformer concrete equipment pad would be poured to provide a mounting surface for the equipment. A set of inverters and a three-phase transformer would be installed on the foundation pads and would contain the necessary enclosures to protect the equipment from adverse environmental conditions. Once all equipment is inspected, all PV modules would be wired into the inverters and transformers via appropriate conductor transfer mediums.

Cable Trenching

Prior to any trenching, shrub and scrub would be removed. Trenches would be a minimum of 12-inches wide and up to 3-foot deep, depending on the number of conductors and voltage of equipment, to comply with local electrical code. Prior to cable installation, the trenches would be backfilled with the appropriate materials to provide suitable bedding for conductors, and then covered with 3 to 4 inches of sand. The remaining backfill would be composed of native, excavated material. Excess soil would be redistributed onsite or used to provide level foundations for other equipment such as inverters and transformers.

3.1 Construction Workforce

The on-site construction workforce would consist of scientists, laborers, craftsmen, supervisory personnel, and construction management personnel (Table 2). In total there will be approximately 150-200 workers onsite, on average. There could be as many as 250 workers on-site during the peak of construction activities.

Construction will occur five days a week for an estimated 10-12 hours per day. Additional hours may be necessary to make up for schedule and weather delays. Due to extreme heat during summer months, cement crews (for example), may need to work during nighttime hours to avoid extreme heat that would complicate curing and drying of cement.

3.2 Truck Trips and Deliveries

During peak construction, an average of 40 truck trips per day would be required to supply concrete, construction materials, proposed Project components, and equipment to the site (Table 3). An additional estimated 100 passenger vehicles would also make a round trip to the site. The use of bus pooling will be investigated to reduce daily round trips of construction worker vehicles. Concrete for PV module foundations, if required, would be procured using an on-site ready-mix operation depending on the amount of concrete needed for the project, otherwise concrete will be provided by an off-site ready mix plant. Construction materials such a pipe, PV modules, solar module assemblies, wire and cable, fuels, reinforcing steel, transformers and inverters, and small tools and consumables would also be delivered to the site by truck.

Table 2. Workforce Numbers

Classification	Quantity
Electricians	10
Heavy Equipment Operators	6
General Laborers	150
Engineers	5
H&S Personnel	6
Project Management and Administration	4

Table 3. Vehicles and Equipment for Facility Construction

Equipment	Quantity (per day)
Pickup trucks (3/4-ton and 1-ton)	10
Vibratory roller	3
Excavator	3
Dump truck	10
Grader	2
Loader	2
Low-boy trailer	5
Concrete Delivery Truck	2
Worker Passenger Vehicles	100
Delivery Trucks/semi	10
Water Trucks	3

3.3 Health and Safety Program

The Applicant will require all construction and operation subcontractors to operate under a health and safety program that is approved by OSHA and BLM industry standards. While the use of petroleum products and hazardous materials is not a major component of the proposed Project, the Health and Safety Program should include a standard indemnification and Hold Harmless HazMat stipulations for use of BLM ROW. Stipulations and requirements should be in place to notify the BLM in the event of a release of hazardous substances or petroleum products.

4. Related Facilities and Systems

Status of power purchase agreements—TBD

Status of interconnect agreement—TBD

Communications system requirements (microwave, fiber optics, hardwire, wireless) during construction and operation—TBD

5. Operations and Maintenance

5.1 Operations Workforce

The O&M of the proposed Project would employ approximately 20 full-time positions as seen in Table 4.

Table 4. Operational Workforce

Worker Title	Quantity	Comments
General Manager	1	Overall Manager of Operations
Plant/Performance Engineer, EHS	1	Plant Engineer with EHS Responsibilities
Power/Controls Engineer	1	Responsible for switchyard, inverters, 34.5 kV ac
Maintenance Supervisor	1	Manager of all maintenance personnel
PV Maintenance Technicians	8	Preventive maintenance & repairs for PV arrays
Machinist	1	Responsible for providing machine support
Instrument & Controls Lead	1	Highly skilled supervisor, computer skills
Instrument & Controls	2	Controls systems and collection systems wiring
General Administration	2	Maintains building, water treatment plant
Security/Misc.	2	Maintains building and grounds (possibly
Total	**20**	

Maintenance and administrative staff would typically work an 8-hour day, Monday through Friday. During times of major repair, the maintenance workforce would typically work longer hours and/or weekends and holidays. This workforce would be stationed at the proposed O&M building.

5.2 Operations and Maintenance Activities

There are few moving parts to the PV single tracker systems as well as no process water, gas, or fuels required for power generation. Maintenance would consist of dust control and grounds upkeep, cleaning and repair of modules, repair and upkeep of all transformers, inverters and wiring collection systems, control systems upkeep, building maintenance and water treatment, and permanent stormwater controls and maintenance.

Maintenance and equipment inspections would be completed in accordance to the recommendations of the Original Equipment Manufacturer (OEM) requirements. Routine Preventative Maintenance (PM) activities will be scheduled in accordance to the frequencies outlined in the OEM specifications. O&M would require the use of vehicles and equipment including but not limited to welding, re-fueling, lubricating, panel washing equipment, forklifts, manlifts, and chemical sprayers for weed abatement. Flatbed trucks and pick-up trucks as well as utility vehicles would be used daily at the facility and on-site.

Major equipment maintenance and overhauls would be completed at intervals of approximately 5-10 years. Replacement of non-functioning equipment may require the use of heavy haul transport equipment and large overhead cranes.

6. Environmental Considerations and Other Resources

6.1 General Description of Site Characteristics and Potential Environmental Issues

Surface Hydrology, Wetlands and Floodplains

Field investigations and wetland delineations will be necessary where proposed facilities cross washes, arroyos, wetlands, or rivers to verify site conditions, confirm jurisdictional status under the United States Army Corps of Engineers (USACE), and to identify potential permitting requirements under Sections 401 and 404 of the Clean Water Act (CWA). Facilities within special flood hazard areas on private land would require a permit from the San Juan County Office of Emergency Management.

Geology, Topography, and Soils

Areas with excessive slopes or other topographical features that could limit development may occur in the project area. Due to the numerous existing transmission line corridors in the area, soil conditions are largely conducive for development of solar infrastructure. However, within the site, soils indicate the potential for a shallow resistive layer being present and susceptibility to shrink and swell

Cultural Resources

A Class III survey of 2,600 acres in the Shiprock site has been conducted. Consultation with the State Historic Preservation Office would be required in compliance with Section 106 of the National Historic Preservation Act. Consultation with Native American Tribes (government to government) would also be required for development on federal, state or tribal land.

Visual Resources

There are no Class I Visual Resource Management (VRM) areas in the analysis area. The BLM's VRM classification system is designed with the goal of minimizing the visual impacts of surface-disturbing activities and maintaining scenic values for the long term. For project components on federal lands in Class III VRM areas, a visual contrast rating worksheet and analysis would be required by the BLM. Additional specific analysis may be required as directed by the BLM Farmington Field Office (FFO).

Land Use

BLM land in the analysis area is managed for multiple use. Assigning large tracks of land to a single commercial use and restricting public access may require some design modification and/or additional analysis during the NEPA permitting process.

There are active oil/natural gas leases within the analysis area, but these are not expected to be a critical issue for solar development. Development, other than transmission lines, on SJM, would require the mine to change the post-mining use from grazing and wildlife to commercial. Alternatively, the SJM could fully reclaim areas and that have been mined out and release those from the mine permit. Once released, BLM could lease the area for solar development.

6.2 Other Uses on the Project Site

Grazing permit (grazing use, range improvements including fences and water sources and distribution, access, proposed mitigation, and any agreements with permittee)

- Other existing authorized uses (rights-of-way, leases and permits)
- Public access and roads
- Recreation and OHV conflicts
- Aviation and/or military conflicts (as appropriate).
- Mining claims
- Other environmental considerations

6.3 Mitigation Measures

Invasive species and Noxious Weeds

- Clean all large civil equipment before mobilizing to the construction site to prevent any possible carrying or transferring of noxious weed seeds.
- Use only weed-free gravel, fill, and road base when constructing the access road.
- The ROW-holder will be responsible for controlling noxious weeds within the limits of the ROW.
- Noxious weeds are defined as those listed by the Director of the New Mexico Department of Agriculture under the Noxious Weed Act of 1988 and those declared noxious by San Juan County. The ROW-holder will employ weed-control methods approved in writing by the BLM. An approved pesticide use proposal must be obtained prior to the application of herbicides (if necessary).

Wildlife

- Preconstruction resource surveys would be conducted depending upon the timing of construction and species potentially present.
- If construction activities occur within active raptor nest buffer zones, construction activities would be coordinated with the BLM to establish appropriate monitoring and mitigation protocol, which may allow for construction to proceed.
- Construction activities would be coordinated with the BLM to establish appropriate monitoring and mitigation protocol within sensitive species habitat, which may allow for construction to proceed.

Water and Soil Resources

An Erosion and Sediment Control Plan will be implemented.

Hazardous Wastes

All applicable state and federal regulations for the storage and disposal of any hazardous material, including oil and fuel, will be followed.

7. Supplemental Information

Additional Supplementary Information (Appendix B) will be required in order to prepare the final NEPA analysis and complete the review and approval process but is not required to be submitted with the initial POD. This information is required before the BLM can complete the environmental analysis. This information is developed as further data is gathered on-site and as alternative designs and mitigation measures are incorporated into a final POD. Other environmental data and inventory information (including but not limited to cultural resources, sensitive species and other biological data) will also be required to be collected by the proponent in order to prepare the final NEPA analysis.

Appendix A – Legal Description

Federal Lands

345 kV Transmission Line

NE SW 1/4, NW SE 1/4, NE SE 1/4, Section 24, Township 30 North, Range 16 West, New Mexico Principal Meridian (NMPM)

Solar Facility

SW SW 1/4, NW SW 1/4, NE SW 1/4; NW 1/4; NE 1/4; NW SE 1/4 Section 19;
SW 1/4, NW 1/4, NE 1/4, SE 1/4; Section 18;
SW SW 1/4, NW SW 1/4, NW 1/4, SW NE 1/4, NW NE 1/4 Section 17;
SW SW 1/4, SE SW 1/4, SW SE 1/4, NW SE 1/4 Section 7;
SE SW 1/4, NE SW 1/4, SE NW 1/4, NE NW 1/4, NW NE 1/4, SW NE 1/4, NW SE 1/4, SW SE 1/4 Section 8;
SE SW 1/4, NE SW 1/4, NW SE 1/4, SW SE 1/4 Section 5;
Township 30 North, Range 15 West, NMPM

Private Lands

345 kV Transmission line to PNM

NE NW 1/4, SE NW 1/4 Section 20 Township 30 North, Range 15 West, NMPM

Solar Facility

SE SE 1/4, NE SE 1/4, SE NE 1/4, NE NE 1/4, Section 7;
SW SW 1/4, NW SW 1/4, SW NW 1/4, NW NW 1/4, Section 8;
NE 1/4, NE SE 1/4, SE SE 1/4 Section 5,
Township 30 North Range 15 West, NMPM.

Appendix B – Supplementary Information

Additional Supplementary Information will be required in order to prepare the final NEPA analysis and complete the review and approval process but is not required to be submitted with the initial POD. This information is required before the BLM can complete the environmental analysis. This information is developed as further data is gathered on-site and as alternative designs and mitigation measures are incorporated into a final POD. Other environmental data and inventory information (including but not limited to cultural resources, sensitive species and other biological data) will also be required to be collected by the proponent in order to prepare the final NEPA analysis.

1. Engineering and Civil Design
    a. Facility survey and design drawing standards
    b. Supplemental engineering and civil design packages may be required based on modifications to the initial POD during preparation of the NEPA analysis. Final engineering and civil design packages will be required prior to approval of the Notice to Proceed for all solar facilities, thermal power conversion facilities, electrical facilities and ancillary facilities that incorporate all mitigation measures developed in the final NEPA analysis and incorporated into the final approved POD. Final as-built drawings will be required for all facilities after completion of construction.
    c. Watershed and drainage analysis and calculations
    d. Watershed protection and erosion control design drawings
    e. Supplemental site grading plans may be required based on modifications to the initial POD during preparation of the NEPA analysis. Final site grading plans will be required prior to approval of the Notice to Proceed that incorporate all mitigation measures developed in the final NEPA analysis and incorporated into the final approved POD.

2. Alternatives Considered by the Proponent

    a. Alternative engineering design considerations
    b. Alternatives considered but not carried forward by proponent c. Comparative analysis of design alternatives

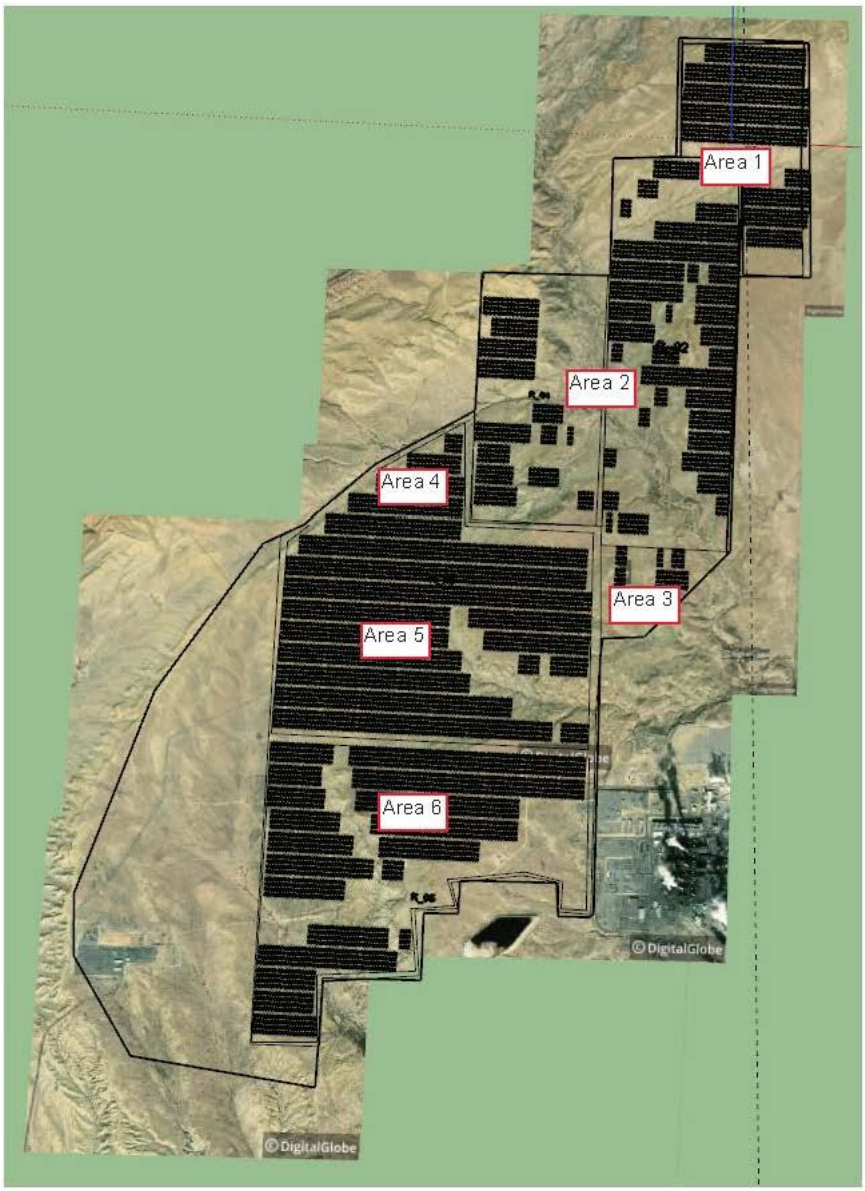
3. Facility Management Plans

    a. Stormwater Pollution Prevention and Protection Plan b. Hazardous Materials Management Plan
    b. Waste Management Plan
    c. Invasive Species and Noxious Weed Management Plan e. Health and Safety Plan (meeting OSHA requirements)
    d. Environmental Inspection and Compliance Monitoring Plan
    e. Worker Education and Awareness Plan

4. Facility Decommissioning

    a. Reclamation and site stabilization planning b. Temporary reclamation of disturbed areas
    b. Removal of power generation and substation facilities d. Removal of heliostats/panels
    c. Removal of other ancillary facilities.

Appendix C – Engineering Plan/Facility Layout


Area 1
Area 2
Area 4
Area 3
Area 5
Area 6
© DigitalGlobe
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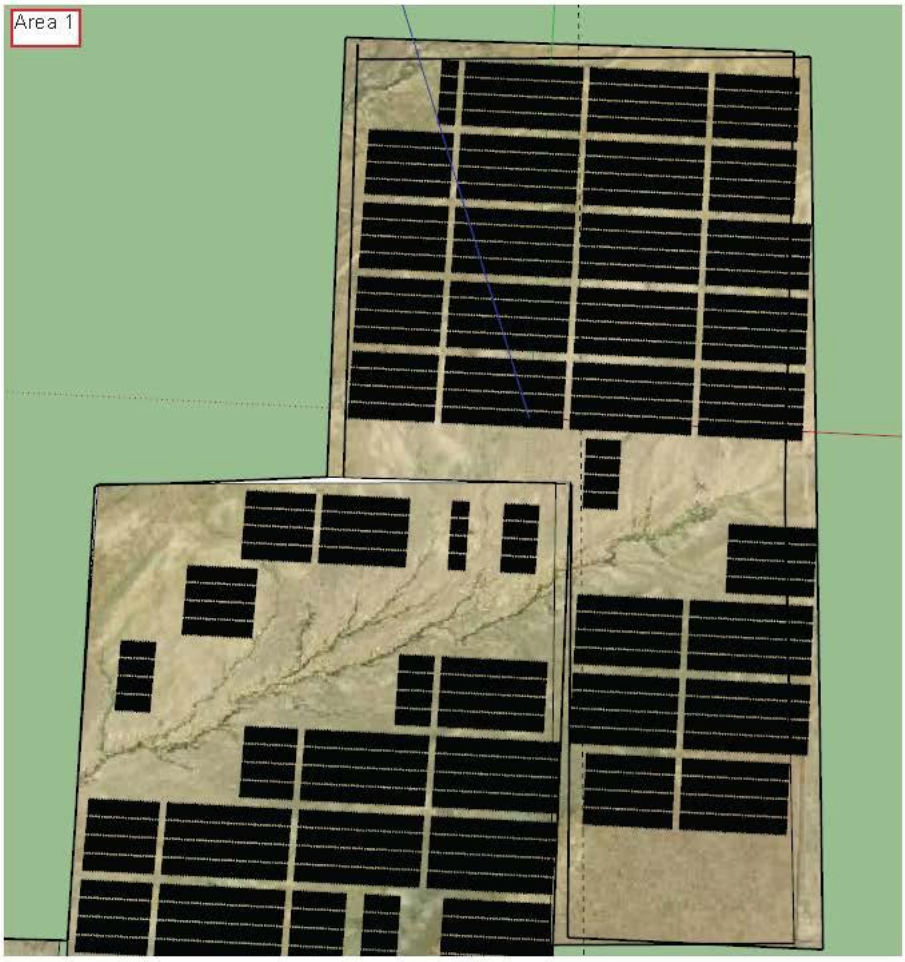
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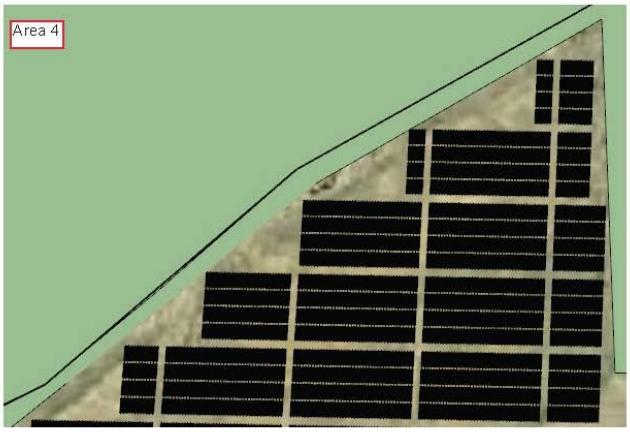
Area 2


Area 3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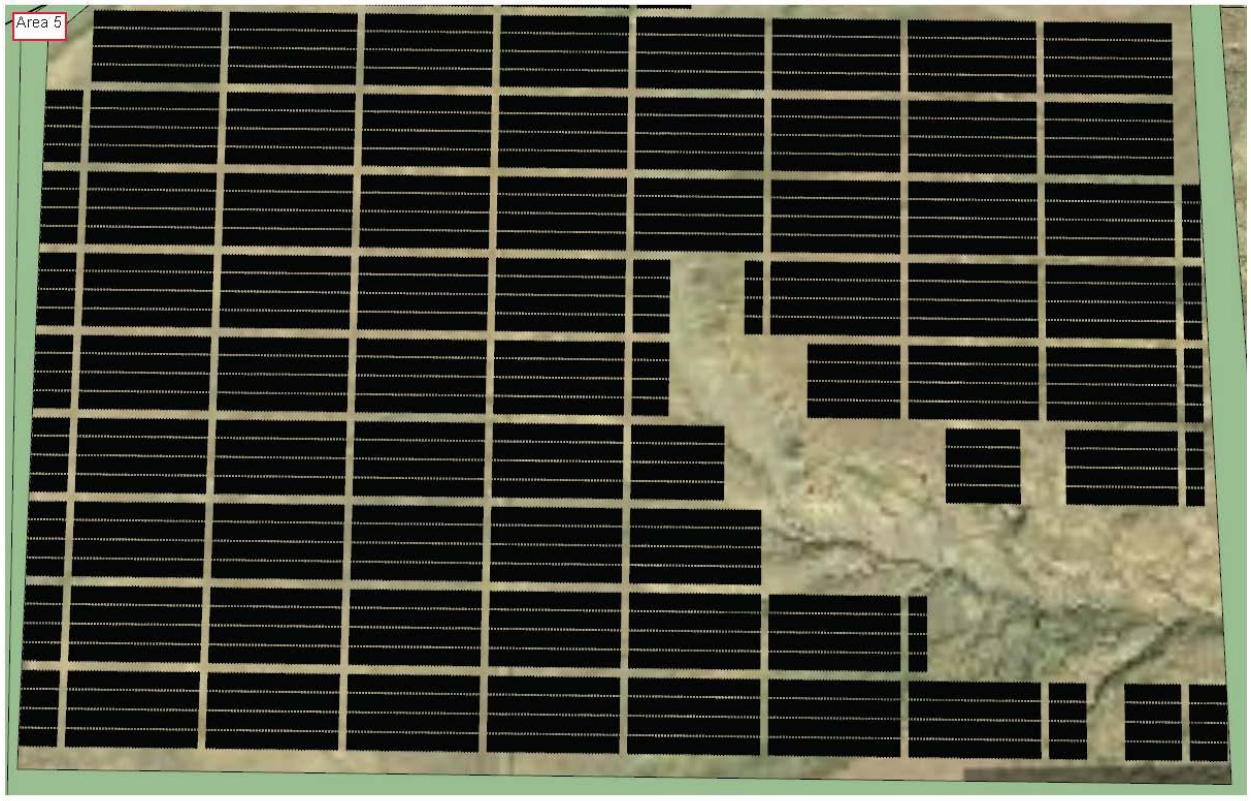
Area 5


Area 6