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May 6, 2009

Gregory L. Helseth
Renewable Energy Project Manager
Bureau of Land Management
Las Vegas Field Office
4701 North Torrey Pines
Las Vegas, Nevada 89130

Re: NextLight Renewable Power, Silver State South Photovoltaic Power Project (NVN-085077) Plan of Development, Amendment

Dear Greg:

Attached are six copies of the amendment to NextLight Renewable Power, LLC Plan of Development for the Silver State South Photovoltaic Power Project (NVN-085077) for distribution to your staff. This project was formerly known as the Primm Solar Generating Project. This amendment reflects a design change from concentrating solar to photovoltaic solar design. An electronic copy of this document has been sent to you via e-mail.

Please call me at 916-286-0278 if you have any questions about this matter.

Sincerely,

Douglas M. Davy, Ph.D.
Program Manager

c: Mike Hatfield, NextLight Renewable Power, LLC
Bill Chilson, NextLight Renewable Power, LLC
Dave Watkins, NextLight Renewable Power, LLC
Geoff Baxter, NextLight Renewable Power, LLC
Linda Bullen, Lionel, Sawyer, and Collins

Draft
Plan of Development, Amendment

Silver State South Photovoltaic Power Project

NVN-085077

Project #2008-443

Prepared for

Bureau of Land Management
Las Vegas Field Office

Prepared by

With technical assistance from
CH2MHILL
2285 Corporate Circle
Suite 200
Henderson, NV 8907

May 2009

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Acronyms, Abbreviations, and Glossary

°F	degrees Fahrenheit
AC	alternating current
ACEC	Area of Critical Environmental Concern
APE	Area of Potential Effects
BLM	Bureau of Land Management
BMPs	best management practices
CAISO	California Independent System Operator
CFR	Code of Federal Regulations
critical habitat	For a species listed under the Endangered Species Act, an area that the U.S. Fish and Wildlife Service has determined is essential for the continued viability of the species.
CWA	Clean Water Act
DAQEM	Department of Air Quality and Environmental Management
dBA	decibel, A-weighted
DC	direct current
DCS	distributed control system
DWMA	Desert Wildlife Management Area
ECP	Energy Capital Partners
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FLPMA	Federal Land Policy and Management Act
fugitive dust	Dust caused by construction that escapes from a construction site

geotextiles	Fabrics used in large-scale construction applications to control erosion
HVAC	heating, ventilation, and air conditioning
kV	kilovolt(s)
LADWP	Los Angeles Department of Water and Power
LGIP	Large Generator Interconnect Procedures
LIDAR	Light Detection and Ranging
MCC	motor control center
MSDS	Material Safety Data Sheets
MSHCP	Multi-Species Habitat Conservation Plan
MW	megawatt
O&M	operation and maintenance
NDEP	Nevada Department of Environmental Protection
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
OHV	off-road vehicle
OSHA	Occupational Safety and Health Administration
PM_{10}	particulate matter 10 microns or less in diameter
POD	Plan of Development
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
ROW	right-of-way
SCADA	Supervisory Control and Data Acquisition
SCE	Southern California Edison
SHPO	State Historic Preservation Office

SPCC	Spill Prevention, Control, and Countermeasures Plan
SUT	step-up transformer
SWPPP	Stormwater Pollution Prevention Plan
TSDF	Treatment, Storage, and Disposal Facility
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V	volt

Executive Summary

NextLight Renewable Power, LLC (NextLight) proposes to construct, own, and operate a 267-megawatt (MW) (nominal annual plant capacity) solar photovoltaic (PV) power generation facility, the Silver State South Photovoltaic Power Project (Project, or Silver State South Project), on land administered by the Department of the Interior, Bureau of Land Management (BLM) in the Ivanpah Valley near Primm in Clark County, Nevada. This Plan of Development (POD) describes the design, location, and proposed permitting and construction schedule for the Project. The POD has been prepared in response to BLM's guidance dated July 3, 2008, titled *Solar Energy Plan of Development*. The Project is designed to meet the increasing demand for clean, renewable electrical power. Development of solar resources reduces reliance on foreign sources of fuel, promotes national security, diversifies energy portfolios, and contributes to the reduction of greenhouse gas emissions. Solar energy development is also consistent with recent Federal policies including President Bush's Executive Order 13423 (Strengthening Federal Environmental, Energy, and Transportation Management) and U.S. Department of the Interior, BLM Instruction Memorandum No. 2007-097.

NextLight filed a Form SF-299 Right-of-Way (ROW) grant application for the use of project lands with the BLM Las Vegas Field Office and was assigned project serial number NVN 085077. NextLight also filed a Form SF-299 ROW grant application for a similar PV project on adjacent property to the north of, and bordering on the Silver State South project site. The proposed project for the northern area is called the Silver State North PV Power Project (Silver State North Project), and was assigned BLM serial number NVN 085801. These two projects are similar in design, will be constructed concurrently, and the same construction and operation workforce will be used on both sites. Additionally, the Silver State South and Silver State North Projects will share some related facilities and equipment, including the operations & maintenance (O&M) facility, access road, and transmission lines and switchyards. All of the shared facilities, however, will be located on the Silver State North Project site. In addition, the electrical substation for Silver State South Project will be located on the Silver State North Project site.

The Project will use crystalline silicon, or possibly thin film, PV technology on single-axis trackers or tilted fixed panels. The technology described in the POD is based on SunPower T-20 and/or T-0 trackers and associated equipment. Actual equipment will be similar to this technology, and will be selected based on cost and market availability of the equipment. The solar modules will use concrete ballasts, embedded foundations, or other suitable structures to support the trackers.

The Project site is in Clark County, Nevada, approximately 2 miles southeast of Primm, Nevada. The Project boundary would encompass approximately 4,640 acres (7.25 sections) of federal, BLM-managed lands. The Project is proposed for T27S, R59E, Mount Diablo Base and Meridian (U.S. Geological Survey [USGS] State Pass 7.5-minute quadrangle).

The Project would include the following main design elements:

- Modular photovoltaic solar panels

- Single-axis tracker systems or fixed panels, mounted on precast cement ballasts that sit directly on the ground, or other foundation design.
- Direct current (DC) to alternating current (AC) power inverters mounted on concrete pads
- Three-phase pad mounted transformers that convert the output of each inverter to a nominal 34.5 kilovolts (kV)
- An overhead 34.5-kV collection system to convey electricity from the solar field to the substation.

The following elements will be located on the NextLight Silver State North Project site, and will be shared with the Silver State North Project:

- A 3.85-mile-long paved access road connecting the Project site from the existing Interstate 15 access road north of the Primm Resort that makes use of an existing crossing of the Union Pacific Railroad tracks. Approximately 1.45 miles of this road connects the frontage road with the western Section 3 boundary of the Silver State North Project site. The additional 2.4 miles of road will be located within the Silver State North Project site. Alternatively, access to the site will be from Primm Boulevard and will use the existing Union Pacific Railroad overpass that provides access to the NV Energy Higgins Power Plant Substation. A new 0.3-mile-long access road would be constructed to connect with the Silver State North Project site.
- A substation, with a 34.5-kV to 220-kV step-up transformer (SUT), located on and near the southern boundary of the Silver State North Project site. This substation will be approximately 350 feet by 350 feet in size (2.8 acres) and the highest point at the substation will be approximately 60 feet.
- A 2.5-mile-long, 220-kV transmission line to connect the substation with the existing Southern California Edison (SCE) Eldorado-Mountain Pass transmission line. The existing line is 115 kV; however, SCE plans to upgrade the line to 220 kV under its planned system upgrades as identified in the *SCE Conceptual Transmission Requirements and Costs for Integrating Renewable Resources* report, September 6, 2007. The new generation tie line will be owned by NextLight.
- A 2.2-acre switchyard, located on the Silver State North Project site at the connection point with the SCE Eldorado-Mountain Pass transmission line. This switchyard will be owned and maintained by NextLight.
- A 2.8-acre O&M area that will accommodate a 20,000 square foot O&M building, parking area, temporary covered assembly areas and other associated facilities that will be used for both projects.
- A 2.8-acre substation will be located on the Silver State North Project site that will connect to the NV Energy Higgins Power Plant Substation. This substation and its associated generation tie-line are described in the Silver State North Project Plan of Development and could be used to transfer electrical power from the Silver State South Project to the NV Energy Higgins Power Plant Substation.

The PV modules will convert sunlight into DC electricity. Between 1 and 3 MW of DC power will be collected from each of the multiple rows of PV modules through one or more combiner boxes and conveyed to an inverter. The inverter will convert the DC power to AC power, which will then flow to a medium-level transformer that converts the output of the inverter to 34.5 kV. Multiple medium-level transformers will be connected in parallel in a daisy chain configuration and collected at the Project substation, where the power will be stepped up to 220 kV for delivery to a new switchyard located at the SCE Eldorado-Mountain Pass transmission line, where it will enter the transmission system. Alternatively, the power can be delivered to the NV Energy Higgins Power Plant Substation through the Silver State North Project.

The Project schedule includes environmental studies and permitting that will take place between October 2008 and November 2010. Construction will take an additional 48 months, to November 2014. The plant will be commissioned in 2- to 5-MW blocks that will begin generating power as soon as the project substation is completed. Initial delivery of power is scheduled for June 2012. As noted previously, construction of the Silver State South and Silver State North Projects would take place simultaneously, and in a coordinated fashion.

Project construction will involve a peak workforce of approximately 285, including both field construction and PV module and foundation fabrication personnel. The workforce described in this POD is another shared element of the Silver State South and Silver State North Projects.

Preconstruction activities will include surveying, geotechnical work, environmental permitting, and preparation of an Environmental Compliance Plan for construction and operation. The facility will employ a staff of 15 to 20 individuals to operate and maintain the two projects and provide plant security.

BLM will assess the potential environmental impacts of awarding an ROW grant through the National Environmental Policy Act (NEPA) review process, and will propose mitigation measures for impacts that could otherwise be significant and adverse. NextLight will pursue other federal permits that may be necessary in parallel with the NEPA review process and in coordination with BLM. Studies required for permitting will include identification of biological resources (rare plants, wildlife) to ensure compliance with the federal Endangered Species Act (ESA); identification of wetland resources, if any, to ensure compliance with the federal Clean Water Act (CWA); identification of any cultural resources to ensure compliance with National Historic Preservation Act (NHPA); as well as visual resources, air emissions, and noise assessments. Cooperating federal agencies may include the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), and Nevada State Historic Preservation Office (SHPO).

State and local permits will also be required for stormwater management, industrial wastewater discharges and air emissions. The Project will require a number of state permits from agencies including the Nevada Divisions of Wildlife, Forestry, Water Resources, Environmental Protection, the Department of Transportation, and the Public Utilities Commission. The Project may also require local permits from agencies including the Clark County Development Services Department, and Fire Department.

SECTION 1

Project Description

1.1 Introduction

1.1.1 Type of Facility, Planned Uses, Generation Output

NextLight Renewable Power LLC (NextLight) proposes to construct, own and operate a 267-megawatt (MW) (nominal annual plant capacity) solar photovoltaic (PV) power generation facility, the Silver State South Photovoltaic Power Project (Project, or Silver State South Project), on land administered by the Department of the Interior, Bureau of Land Management (BLM) in the Ivanpah Valley near Primm in Clark County, Nevada. This Plan of Development (POD) describes the design, location, and proposed permitting and construction schedule for the Project. The POD has been prepared in response to BLM's guidance dated July 3, 2008 titled *Solar Energy Plan of Development*.

Section 1 of the POD provides the project description, including the purpose and need for the Project, provides information about the Applicant, and discusses federal, state, and local permits and authorizations needed to construct and operate the Project. Section 2 describes the construction of the project and construction schedule. Section 3 provides a description of the related facilities, including the site access road and transmission interconnection. Section 4 describes operation and maintenance. Section 5 discusses environmental considerations and NextLight's proposed mitigation measures for potential environmental impacts. Major design drawings are provided in Section 6.

NextLight filed a Form SF-299 Right-of-Way (ROW) grant application for the use of project lands with the BLM Las Vegas Field Office and was assigned project serial number NVN 085077. NextLight also filed a Form SF-299 ROW grant application for a similar PV project on adjacent property to the north of, and bordering on the Silver State South Project site. The proposed project for this parcel is called the Silver State North PV Project, and was assigned BLM serial number NVN 085801. These two projects are similar in design, will be constructed concurrently, and the same construction and operation workforce will be used for both projects. Additionally, the Silver State South and Silver State North Projects will share some related facilities and equipment, including the operations and maintenance (O&M) facility, access road, and transmission lines and switchyards. All of the shared facilities, however, will be located on the Silver State North Project site.

The Project will use crystalline silicon, or possibly thin film, PV technology on single-axis trackers or fixed panels. The technology described in this POD is based on SunPower T-20 and/or T-0 trackers and associated equipment. Actual equipment will be similar to this technology, and will be selected based on cost and market availability of the equipment. On T-20 trackers, the PV modules are mounted to be south-facing and tilted at 20 degrees from horizontal. PV modules on the T-0 trackers are mounted horizontal (not tilted to the south). The tracking units are arranged into east to west-oriented rows throughout the site and are powered by a drive motor to track the east-west path of the sun on a single axis throughout the day. The tracking systems will use concrete ballasts, embedded foundations, or other

suitable structures to support the trackers. Fixed tilt panels would be constructed in a similar arrangement and with similar foundations. The fixed tilt panels would be positioned to receive optimal solar energy, but the panels do not track the path of the sun.

1.1.2 Applicant's Schedule for the Project

Project development will include permitting, construction, and commissioning phases, as shown in Table 1-1.

TABLE 1-1
Project Schedule

Phase	Duration	Estimated Dates
Prepare, review, and approve POD	7 months	October 2008 to May 2009
Field studies and resource reports for Environmental Impact Statement (EIS)	3 months	May to August 2009
EIS Notice of Intent	—	June 2009
Prepare EIS	14 months (concurrent)	July 2009 to August 2010
Obtain federal permits	16 months (concurrent)	July 2009 to November 2010
EIS Record of Decision	—	August 2010
Fabrication and construction	48 months	December 2010 to November 2014
Total elapsed time	74 months	

1.2 Proponent's Purpose and Need for the Project

The Project is designed to meet the increasing demand for clean, renewable electrical power. The United States has a greater solar energy resource potential than any other industrialized nation. The multiple benefits associated with developing this resource have been recognized repeatedly by both federal and state policy-makers. Development of solar resources reduces reliance on foreign sources of fuel, promotes national security, diversifies energy portfolios and contributes to the reduction of greenhouse gas emissions. The Project will contribute much needed on-peak power to the electrical grid that serves the western United States. The demand for power continues to grow in these states. As older technology fossil-fuel plants reach the end of their useful lives, there is a need to replace them with clean, reliable sources. The Project responds to this need. The project will produce approximately 267 MW of power. Given that the average annual residential household consumption in Nevada in 2006 was 11,494 kWh (Southwest Energy Efficiency Project), this would be enough electricity to power 81,000 homes.

In addition, many states, including Nevada, have enacted legislation to encourage or mandate the development of renewable generation. The Project is consistent with Nevada's policies regarding solar power, and renewable power in general. In 2001, the Nevada legislature passed SB 372, establishing that 15 percent of the electrical power provided by Nevada's electrical utilities be from renewable sources by the year 2013. A revision to the bill required 5 percent of the renewable energy to be solar energy. In 2005, the Nevada legislature passed AB 03, increasing the renewables percentage goal to 20 percent and extending the deadline.

1.3 General Facility Description, Design, and Operation

1.3.1 Project Location, Land Ownership, and Jurisdiction

The Project site is located in an unincorporated portion of Clark County, approximately 40 miles south of Las Vegas and 2 miles southeast of Primm (Figures 1-1 and 1-2). The Project boundary would encompass approximately 4,640 acres (7.25 sections) of federal, BLM-managed lands. The United States Geological Survey (USGS) topographic quadrangle that encompasses the Project site and all appurtenant facilities is the State Pass 7.5-minute quadrangle).

The Project will be located on land administered by the BLM Las Vegas Field Office in Clark County, Nevada. NextLight filed a Form SF-299 ROW grant application for use of the land with the BLM Las Vegas Field Office and was assigned project serial number NVN 085077. NextLight has applied for a project site of approximately 4,640 acres, bounded on the west by the Union Pacific Railroad and on the north by NV Energy's Higgins Power Plant Substation (Figure 1-2).

1.3.2 Legal Land Description of the Facility

The Project site is located in T27S, R59E, Mount Diablo Base and Meridian. The legal description, township/range, section, and subdivision for the entire Project complex, is shown in Table 1-2. Section lines are shown in Figure 1-3. All of the lands proposed for use are federal lands.

TABLE 1-2
Township/Range, Section, and Subdivision Information

Township/Range	Section	Subdivision	Project Element
T27S, R59E	2	SW ¼ of SW ¼	Transmission line, Access road
	3	SW ¼ of NW ¼, W ½ of SW ¼, SE ¼, of SW ¼, S ½, of SE ¼	Transmission line, Switchyard, Access road
	3	SW ¼, of SW ¼	Operations and Maintenance Building and Silver State North Substation
	4	S ½ of NE ¼, NW ¼ of SE ¼, N ½ of SW ¼	Access road
	5	NE ¼ of SE ¼, SW ¼ of SE ¼	Access road
	11	W ½ of NW ¼	Transmission line, Access road
	11	SW ¼ of SW ¼	Substation
	11	W ½ of SW ¼	Transmission line, Access road
	13	All	Collector field/drainage structures
	14	All	Collector field
	15	All	Collector field
	22	All (NV)	Collector field
	23	All	Collector field/drainage
	24	W ½	Collector field/drainage
	25	NW ¼	Collector field/drainage
	26	All (NV)	Collector field/drainage
	27	All (NV)	Collector field

1.3.3 Total Acreage and General Dimensions of All Facilities and Components

Table 1-3 lists all of the Project's facilities and components and gives their acreages and general dimensions. Figure 1-4 shows the site layout.

TABLE 1-3
Project Facilities, Acreage, and Dimensions

Facility	Acreage	Length	Width
Outer project boundary	4,640	3.0 miles	3 miles
Access road	18.7	3.85 miles	40 feet
Transmission Line ROW	45.5	2.5 miles	150 feet

The highest point on the tilted tracker units (the uppermost solar panel) is about 12 to 15 feet above the ground surface. The units are mounted on precast or cast-in-place concrete ballasts, embedded foundations, or other suitable structures to support the trackers. The foundations are located at the north and south end of each tracker unit. The ballast foundations are approximately 10 feet long by 2 feet wide and 1.5 feet high. The embedded foundations are approximately 4.5 inches to 12 inches in diameter and up to 15 feet deep. The northern end of the tracker is attached to two separate foundations, such that each tracker shares a foundation with an adjoining tracker. This shared foundation design provides the necessary support in strong wind conditions. The concrete electrical equipment pads that support the inverters and other electrical equipment are approximately 15 feet by 60 feet; however, these dimensions will vary depending on the number of inverters and other equipment per pad. The electrical equipment enclosures are approximately 12 feet high.

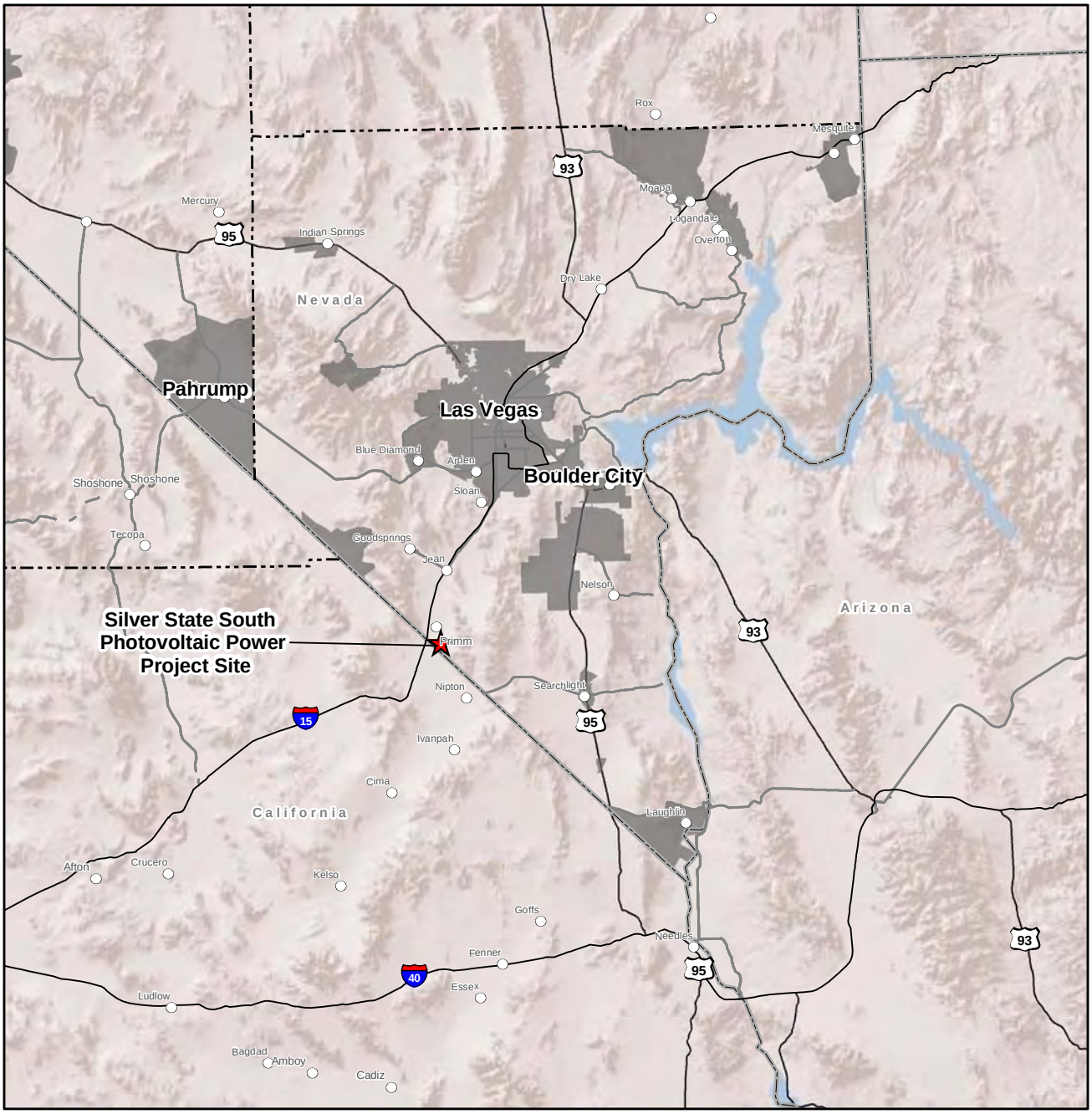
The highest point for a horizontal tracker is during the morning and evening hours and is approximately 8 feet above the ground surface. The vertical support legs at each end of the trackers are driven into the ground; no concrete footing is required. Fixed tilt panels are approximately 6 feet off the ground at the highest point.

1.3.4 Power Plant Facilities, Photoelectric Conversion Process

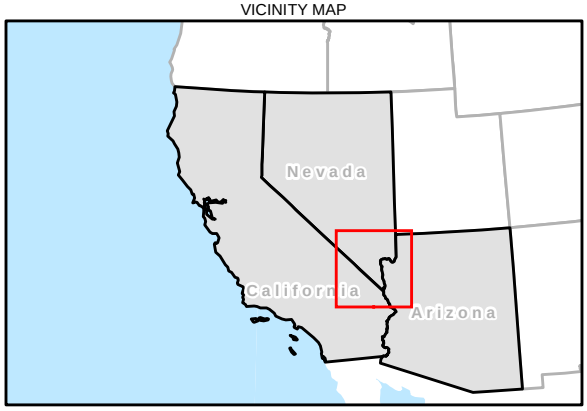
1.3.4.1 Power Plant Facilities

The Project would include the following main elements:

- 746,010 PV solar panels
- 82,890 single-axis tracker systems, or fixed panels, mounted on cement ballasts that sit directly on the ground, or other foundation design
- 300 power inverters
- 300 three-phase, pad-mounted transformers



VICINITY MAP



LEGEND

- Project Site
- City/Town
- Freeway
- Major Roads
- County Boundary
- Urban Areas

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

N

0 12.5 25

Miles

FIGURE 1-1
PROJECT VICINITY

SILVER STATE SOUTH PHOTOVOLTAIC POWER PROJECT, CLARK COUNTY, NEVADA

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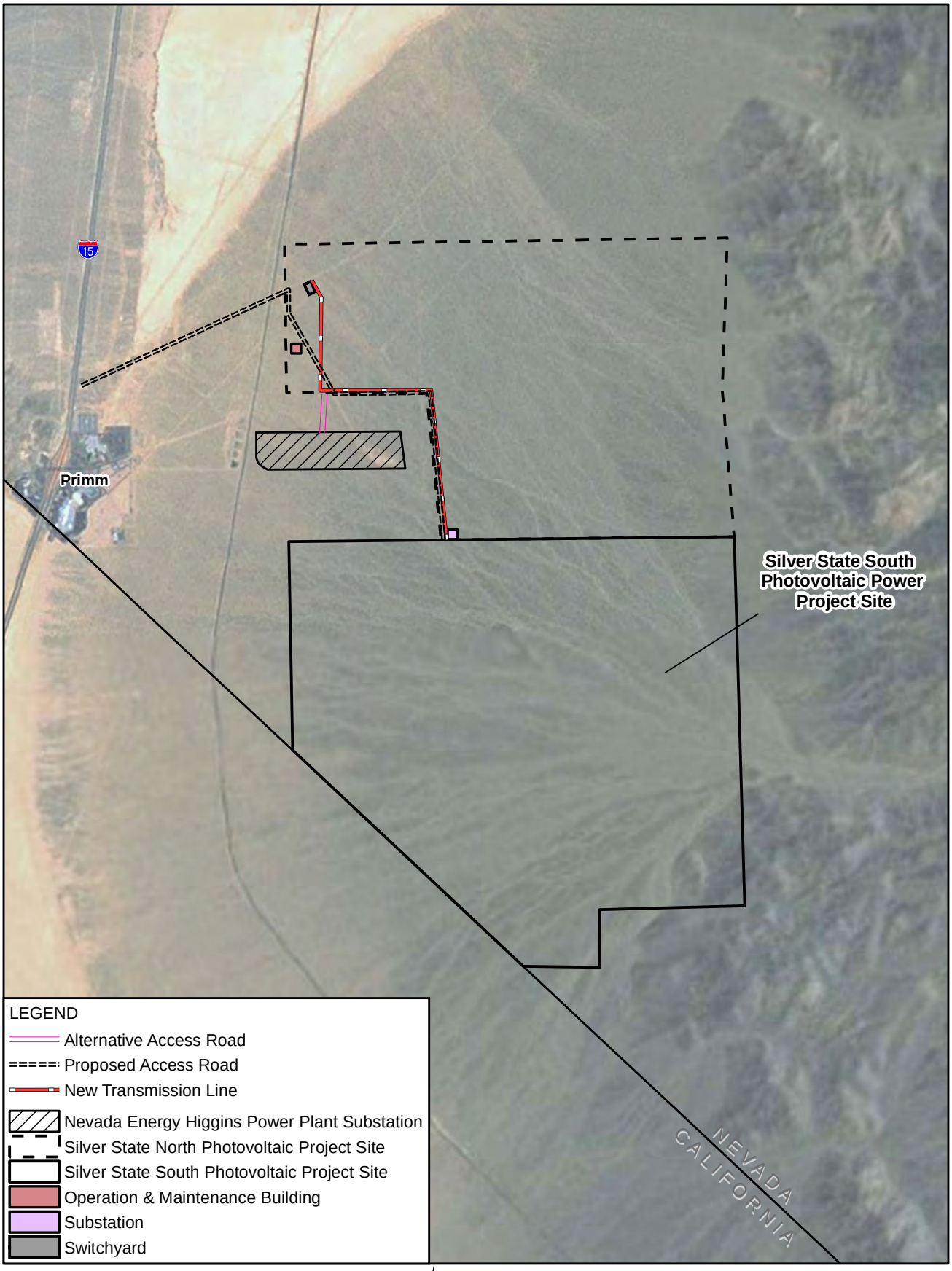

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

FIGURE 1-2
PROJECT LOCATION
SILVER STATE SOUTH PHOTOVOLTAIC POWER PROJECT CLARK COUNTY, NEVADA

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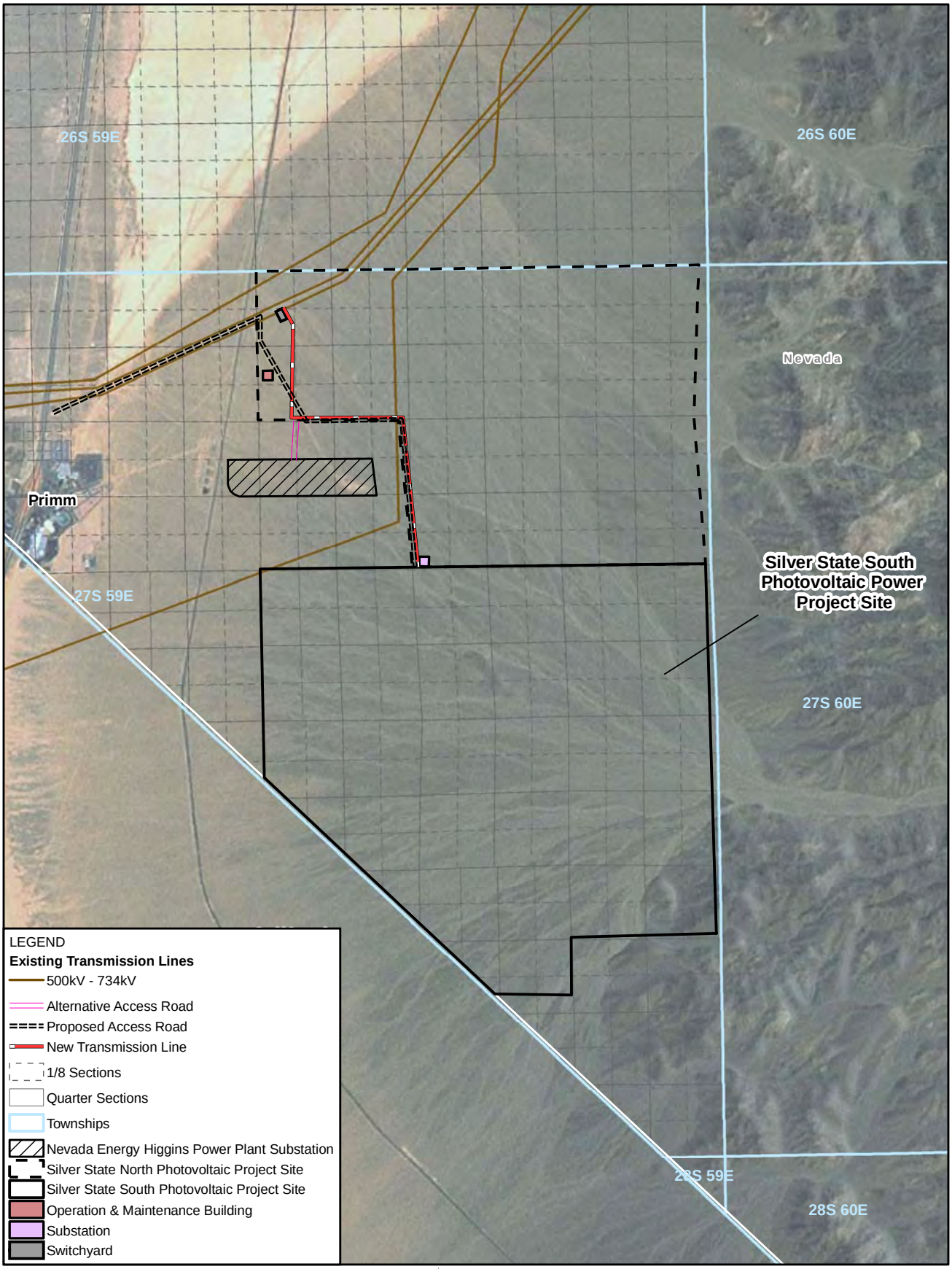

This map was compiled from various scale source data and maps and is intended for use as only an approximate representation of actual locations.

FIGURE 1-3
TOWNSHIP/RANGE, SECTION, AND SUBDIVISION INFORMATION
SILVER STATE SOUTH PHOTOVOLTAIC POWER PROJECT, CLARK COUNTY, NEVADA

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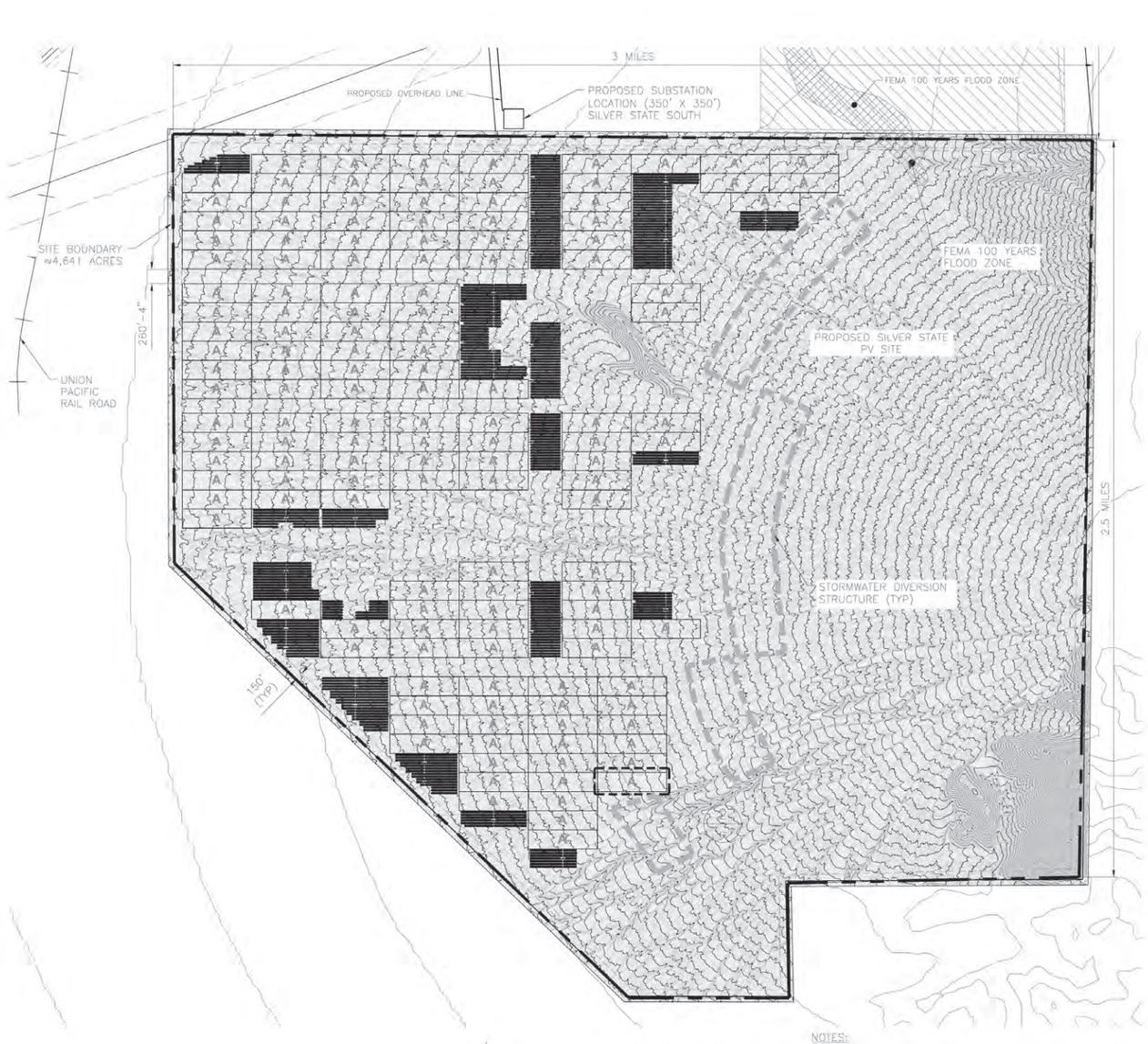

1 ARRAY LAYOUT
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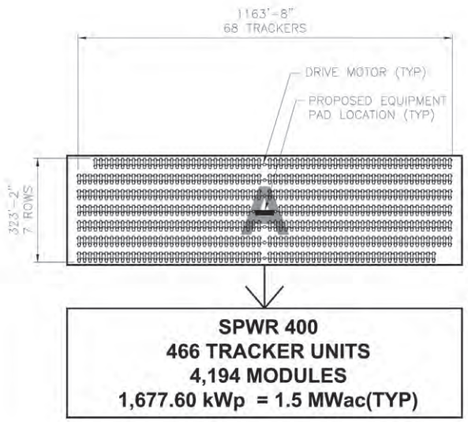

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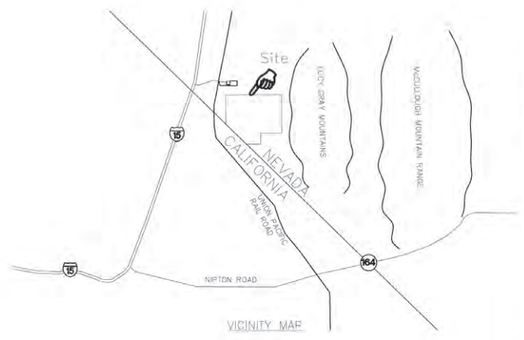


VICINITY MAP

NOTES:

1. THIS DESIGN ASSUMES:
   - THE SITE WILL BE GRADED AND OTHERWISE PREPARED TO MEET ALL TOLERANCES OF THE PROPOSED TRACKER ARRAY SLOPE OF <5%. REQUIRED GRADING IS NOT SHOWN ON THIS PLAN.
   - THAT THE ENVIORNMENTAL REGULATIONS ALLOW INSTALLATION OVER BLUE LINE STREAMS AS SHOWN.
2. 90 MPH WIND ZONE
3. TOPO--MAP PROVIDED WITH 1' INTERVAL

PROPOSED SYSTEM SPECIFICATIONS:

288.00 MWp ≈ 257.14 MWac
(720,000) HIGH EFF. (400W) MODULES
9 MODULES/STRING, 80,000 STRINGS
80,000 TRACKERS, 180 EQUIPMENT PADS
GCR=0.264, 1,470 MOTORS,
AZIMUTH ANGLE: 0°

NOTE: THE PROPOSED ARRAY LAYOUT SHOWN IS DESIGNED TO FIT EXISTING CONDITIONS AS THEY ARE DESCRIBED ON THIS DRAWING. kWp AND MODULE QUANTITY, TYPE AND LAYOUT ARE SUBJECT TO CHANGE BASED ON SUNPOWER VERIFICATION OF ACTUAL SITE CONDITIONS, AS WELL AS ON MODULE AVAILABILITY AT THE DATE OF ORDER.

FIGURE 1-4
Solar Facility Site Plan
Silver State South Photovoltaic Power Project
Clark County, Nevada

Source: Sunpower, 2009. Drawing 003650_AL.dwg

The following elements will be located on the Silver State North Project site, and shared by both projects:

- A 3.85-mile-long paved access road connecting the Project site from the existing Interstate 15 access road north of the Primm Resort that makes use of an existing crossing of the Union Pacific Railroad tracks. Approximately 1.45 miles of this road connects the frontage road with the western boundary of Section 3 at the Silver State North Project site. The additional 2.4 miles of road will be located within the Silver State North Project site. Alternatively, access to the site will be from Primm Boulevard and will use the existing Union Pacific railroad overpass that provides access to the NV Energy Higgins Power Plant Substation. A new 0.3-mile-long access road would be constructed to connect with the Silver State North Project site.
- A substation, with a 34.5-kilovolt (kV) to 220-kV SUT, located on and near the southern boundary of the Silver State North Project site. This substation will be approximately 350 feet by 350 feet in size (2.8 acres) and the highest point at the substation will be approximately 60 feet.
- A 2.5-mile-long, 220-kilovolt (kV) transmission line to connect with the existing Southern California Edison (SCE) Eldorado-Mountain Pass transmission line. The existing line is 115 kV; however, SCE plans to upgrade the line to 220 kV under its planned system upgrades as identified in the *SCE Conceptual Transmission Requirements and Costs for Integrating Renewable Resources* report, September 6, 2007. The new generation tie line will be owned by NextLight.
- A 2.2-acre switchyard, located on the Silver State North Project site at the connection point with the SCE Eldorado-Mountain Pass transmission line. This switchyard will be owned and maintained by NextLight.
- A 2.8-acre O&M area that will accommodate a 20,000 square foot O&M building, parking area, temporary covered assembly areas and other associated facilities that will be used for both projects.
- A 2.8-acre substation will be located on the Silver State North Project site that will connect with the NV Energy Higgins Power Plant Substation. This substation and its associated generation tie-line are described in the Silver State North Project Plan of Development and could be used to transfer electrical power from the Silver State South Project to the NV Energy system at the Higgins Substation.

The following sections describe the Project plant site arrangement and the processes, systems, and equipment that constitute the power plant.

1.3.4.2 Energy Conversion Equipment

As a solar PV facility, the Project relies on solar energy as its sole source of fuel. All of the electricity generated by the Project is generated through the conversion of solar energy to electricity by the PV modules. The Project will not consume fossil fuels of any type for power generation. The Project may require electricity from the grid to keep transformers warm during non-daylight hours and to realign the trackers to the east so that they are properly oriented to catch the morning sun the following day.

The present design calls for PV modules, inverters, and transformers to be combined into 1 MW, or larger, blocks that are repeated to reach the full contract capacity. The inverter and transformer sizes will be selected based on cost and market availability of these units. Figure 1-5 shows a typical tracking PV module.

FIGURE 1-5
Single-Axis Tracking Systems Mounted on Cement Ballasts

1.3.4.3 Supervisory Control and Data Acquisition System

The Project will have a Supervisory Control and Data Acquisition (SCADA) system that will allow for the remote monitoring and control of inverters and other Project components. The SCADA system will be able to monitor Project output and availability, and to run diagnostics on the equipment. This equipment will be located in the O&M building located on the Silver State North Project site.

The SCADA system will provide control, monitoring, alarm, and data storage functions for the power plant systems. Redundant capability will be provided for critical SCADA components such that no single component failure will cause a plant outage. The SCADA will be linked to the PV module control systems and to the solar field controls. These data links will provide control, monitoring, alarm, and data storage functions via the control operator interface and control technician workstation of the SCADA.

The Project will have one or more meteorological monitoring stations to track solar insolation, temperature, wind direction and speed, and other parameters.

1.3.5 Numbers and Dimensions of Solar Array and Other Equipment

The Project will consist of solar PV modules mounted onto single-axis trackers or fixed panels. The solar modules would be arranged into rows of up to 72 trackers per row. Each

row will be powered by a 0.5-horsepower electric motor that drives the trackers to follow the sun. Between 1 and 3 MW of direct current (DC) power from multiple rows of PV modules will be collected through one or more combiner boxes and directed to an inverter. The inverter will convert the DC power to alternating current (AC) power, which then flows to a medium-level transformer that converts the output of the inverter to 34.5 kV. Multiple medium-level transformers will be connected in parallel in a daisy chain configuration and collected at the Project substation where the power will be stepped up to 220 kV for delivery to the SCE Eldorado-Mountain Pass transmission line where it enters the transmission system. Table 1-4 summarizes this information for the solar array and other equipment.

TABLE 1-4
Numbers and Dimensions of the Solar Array and Other Equipment

Facility	Number	Length	Width
PV solar modules	746,010	36 inches	18 inches
Single-axis tracker systems	82,890	13.5 feet	4.5 feet
Pad-mounted inverters	300	15 feet	9 feet
Pad-mounted transformers	300	10 feet	8 feet
Shared Facilities			
34.5 kV to 220 kV substation	2	350 feet	350 feet
Switchyard	1	460 feet	240 feet
Transmission line	1	2.5 miles	150 feet
Access road	1	3.85 miles	40 feet
O&M Area	1	350 feet	350 feet

1.3.6 Temporary Construction Workspace, Yards, Staging Areas

The Project construction contractor will mobilize and develop temporary construction facilities and laydown areas within the solar field development area. Once a final design has been established, the contractor will prepare site maps showing the construction project in detail. The project will include the following temporary construction facilities:

- Full-length trailer offices or equivalent
- Chemical toilets
- Tool sheds/containers
- Parking for construction vehicles
- Parking for construction equipment
- Construction material laydown area
- Solar field equipment laydown area

The Project site itself will be used for construction laydown. Temporary covered assembly areas will be located adjacent to the O&M building site on the Silver State North Project site. NextLight will provide 24-hour site security during construction.

1.3.7 Geotechnical Studies and Data Needs

NextLight will conduct geotechnical studies during the permitting phase of the Project to determine the engineering characteristics of local soils and geology. These geotechnical

studies will include borings to develop a geological profile of the area underlying the Project site.

NextLight will also install a meteorological data collection tower to gather basic information on air temperature, wind, and solar transmissivity at the Project site.

1.3.8 Ancillary Facilities

The following subsections describe the various power plant auxiliary systems associated with the project.

1.3.8.1 Water

Annual Project water consumption during operation is expected to be approximately 14 acre-feet per year. The Project does not require process water; however, the administrative area will require domestic potable water service. The main consumption of water during operation will be for occasional panel washing (approximately twice per year). Water requirements for dust control during construction also will be small because the entire site will not be graded at once. Instead, limited grading will proceed just ahead of panel erection. Water requirements for both operation and construction will be met by trucking water to the site from nearby sources, such as Jean, Nevada. A small water tank will be located at the O&M building for fire protection.

1.3.8.2 Supervisory Control and Data Acquisition System

The microprocessor-based SCADA will provide control, monitoring, alarm, and data storage functions for power plant systems. Redundant capability will be provided for critical SCADA components such that no single component failure will cause a plant outage. The control room for the SCADA system will be located off site at an administrative area located on private property.

All field instruments and controls will be hard-wired to local panels. Local panels will be hard wired to the plant distributed control (DCS) system. Wireless technology will be reviewed as an alternative during project design phase.

1.3.8.3 Lighting System

The Project's lighting system will provide operation and maintenance personnel with illumination for both normal and emergency conditions. Lighting will be designed to provide the minimum illumination needed to achieve safety and security objectives and will be shielded and oriented to focus illumination on the desired areas. Lighting for the solar array will normally be shut off except when needed to safely conduct maintenance activities and security purposes. Plant personnel will be able to turn on lights for each solar unit as necessary for maintenance.

1.3.8.4 Cathodic Protection Systems

Underground metal structures will have cathodic protection as necessary based on soil conditions.

1.3.8.5 Buildings, Roads, Fencing, and Security

The Project will include a single O&M building, located on the Silver State North Project site (Figures 1-2 and 1-3). The design and construction of this building will be consistent with County building standards. The building will be approximately 100 feet by 200 feet, with a height of approximately 35 feet, and will have an associated parking area. The O&M building will also include a storage and equipment warehouse.

A small portion of the overall plant site will be paved, primarily the site access road and the small parking area at the O&M building. Gravel roads will be constructed in generally a north-south orientation, approximately 1,200 feet apart to provide access to the solar equipment (PV modules, inverters, transformers). The remainder of the field will be largely unpaved, and low-lying vegetation will be maintained to the extent feasible to minimize dust. As necessary, dust suppression will be implemented, such as the use of dust palliatives, on unprotected soils. Palliatives will be selected based on environmental compatibility.

The solar field and support facilities perimeter will be secured with chain link metal-fabric security fencing. Controlled access gates will be located at the site entrance.

1.3.9 Erosion Control and Stormwater Drainage

1.3.9.1 Site Drainage and Earthwork

The majority of the site will be drained by sheet flow to on- and offsite drainages. Figures 1-6 and 1-7 show the initial site drainage plan and cross-sections. These figures show that stormwater flows will be managed using a series of berms, debris basins to catch stormwater flowing through the berm gaps, and level spreader detention basins. The berms will intercept stormwater flowing out of the adjacent canyons and upper alluvial fan slopes and will channel it across gaps in the berms, which will have debris basins across these gaps. Water will then flow into level spreader detention basins from which it will be released to flow evenly across the lower alluvial fan areas containing the solar modules. The initial site drainage plan has been developed based on the conceptual drainage study provided in Appendix A.

1.3.10 Vegetation Treatment and Weed Management

1.3.10.1 Vegetation Treatment

Vegetation will be cleared as needed to make room for the PV module bases and ballasts and access road network. Elsewhere, vegetation will be cut to a height of 4 to 6 inches and will be kept in check as needed for site maintenance and fire-risk management using mechanical and chemical controls.

1.3.10.2 Noxious Weed Control

Noxious or invasive weeds are known to occur in the Project area. Nevada Revised Statutes, Chapter 555.05 defines "noxious weeds" and mandates landowners and land management agencies to control noxious weeds on lands under their jurisdiction. BLM defines a noxious weed as a "plant that interferes with management objectives for a given area of land at a given point in time." Noxious weeds may invade disturbed areas such as construction sites and may continue to invade for many years following the initial ground-disturbing activity for construction. Additionally, construction equipment is a known noxious weed vector and

can transport weeds to previously weed-free areas or cause the rapid increase of noxious weeds that are already established. Some weeds of concern include Sahara mustard (*Barassica tournefortii*), saltcedar (*Tamarix ramosissima*), red brome (*Bromus madritensis* spp. *Rubens*), and filaree (*Erodium* sp.), among others. Weeds are a threat to ecosystem health in southern Nevada. The presence of weeds increases the competition among species for resources. In many situations non-native weeds can out-compete native plants and displace them, disrupting the ecosystem.

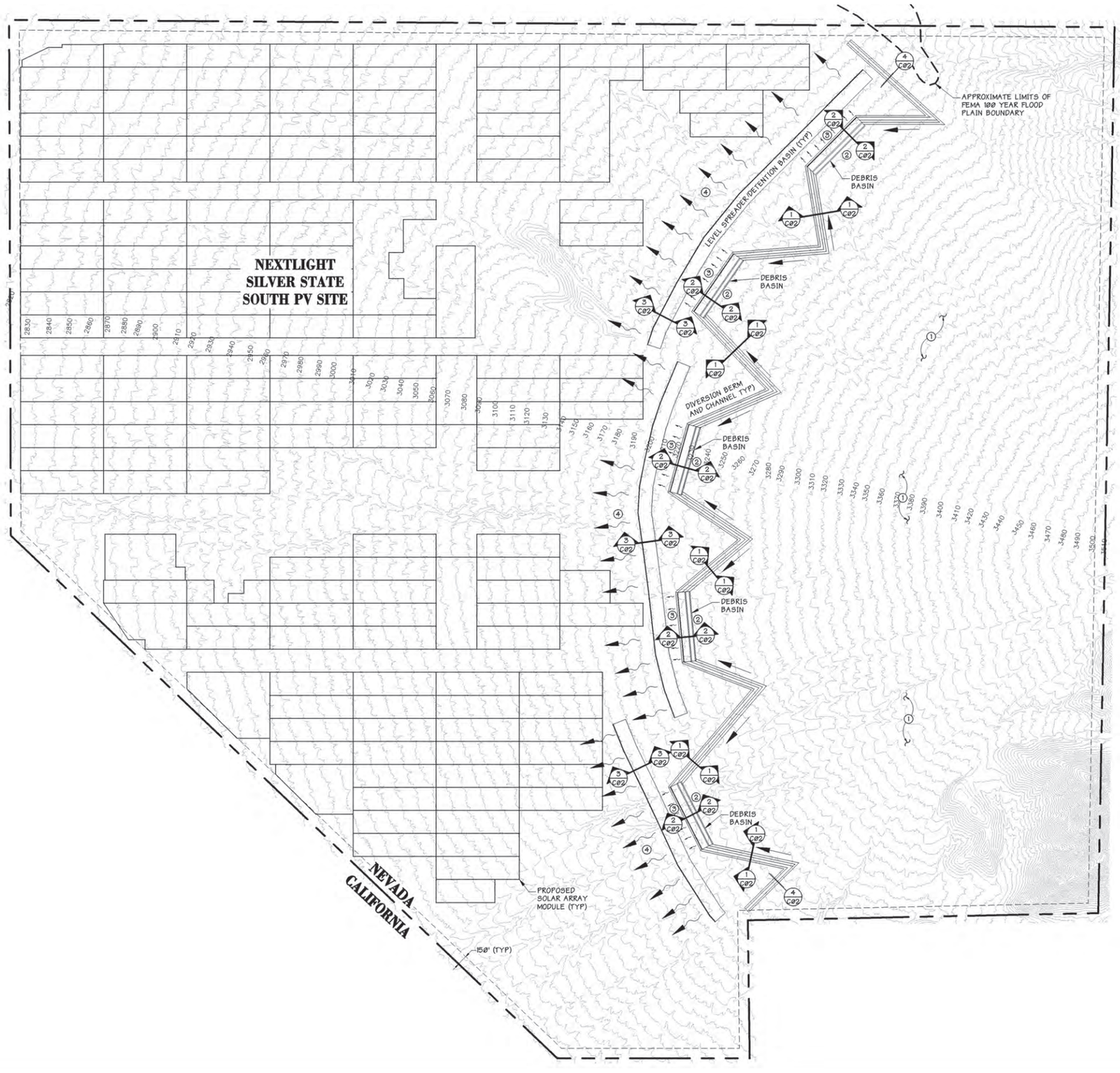
A Noxious Weed Control Plan will be prepared and submitted to the BLM for review and approval before construction begins. This plan will follow the Las Vegas Field Office's Resource Management Plan, *Noxious Weed Plan* (BLM, 2006), and the interagency guidance *Partners Against Weeds* (BLM, 2007) for an active integrated weed management program using weed control best management practices (BMPs).

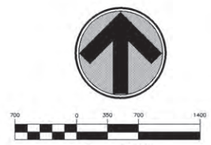
The following are project-specific measures that NextLight will implement to control noxious weeds:

- **Noxious Weed Risk Assessment Form**—This form provides information about the types of weed surveys to be conducted, and weed treatment and prevention method schedules appropriate for the types of noxious weeds likely to be present. This form identifies and evaluates the level of noxious weed management necessary.
- **Herbicide Use Proposal**—The project proponent shall prepare, submit, obtain and maintain a herbicide use proposal for the proposed action. NextLight will coordinate weed control activities with the BLM Weed Coordinator, particularly regarding proposed herbicide treatments.
- **Weed Management Plan**—Before ground-disturbing activities begin, NextLight will prepare a weed management plan. The plan will identify potential weed infestations at the Project site and along the Project-associated linear facilities and will prescribe treatment.
- **Weed Infestation Prevention**—NextLight will limit ground disturbance to the minimum necessary to safely construct and operate the Project. NextLight will avoid creating soil conditions that promote weed germination and establishment.
- **Equipment Cleaning Sites**—NextLight will establish equipment-cleaning sites to remove weed seeds, plant parts, or mud and dirt from vehicles. Project-related equipment and machinery will be cleaned using compressed air or water to remove mud, dirt and plant parts before moving into and from relatively weed-free areas. Seeds and plant parts will be collected, bagged, and deposited in dumpsters destined for local landfills, when practical.

The following measures would be implemented to prevent infestations of noxious weeds at the Project site and to control any potential infestations that may occur during project construction and operation:

- Project construction workers will inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment, bag the product, and dispose of in a dumpster for deposit in local landfills. Disposal methods may vary depending on the project.





NOTE:
CONTOURS, PROPERTY LINES, AND FEMA FLOOD PLAIN INFORMATION OBTAINED FROM LIDAR DATA PROVIDED BY NEXTLIGHT ON 04/03/2009.

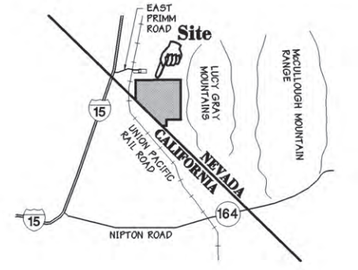
Legend

- FEMA FLOOD PLAIN BOUNDARY
- PROJECT BOUNDARY
- SHEET FLOW
- CHANNELIZED FLOW

Storm Flow Collection Notes

1. FLOW FROM LUCY GRAY MOUNTAINS TO THE EAST.
2. FLOW/DEBRIS COLLECTED AND DIRECTED THROUGH DEBRIS BASIN.
5. FLOW FROM DEBRIS BASIN SHEET FLOWS INTO DETENTION BASIN.
4. FLOW FROM DETENTION BASIN CONVERTED TO SHEET FLOW AT LEVEL SPREADER. SHEET FLOW THROUGH PV SOLAR FIELD.

Vicinity Map



Source: Carlton Engineering, Inc., 2009. Drawing P15242_CO1.dwg

FIGURE 1-6
Initial Site Drainage Plan
Silver State South Photovoltaic Power Project
Clark County, Nevada

Analysis Requirements for Development on an Alluvial Fan

PER CLARK COUNTY REGIONAL FLOOD CONTROL DISTRICT HYDROLOGY CRITERIA AND DRAINAGE DESIGN MANUAL, SECTION 1402.

1. QUANTIFY DESIGN DISCHARGES AND VOLUMES OF WATER, DEBRIS AND SEDIMENT.

2. DESIGN PROPOSED FACILITIES TO ACCOMMODATE MAJOR STORM PEAK DISCHARGE CONSISTING OF THE TOTAL VOLUME OF WATER, DEBRIS, AND SEDIMENT.

3. DESIGN PROPOSED FACILITIES TO WITHSTAND THE POTENTIAL EROSION AND SCOUR FORCES.

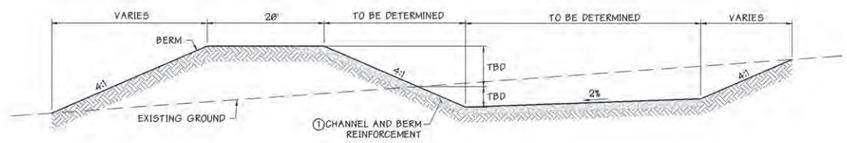
4. DESIGN PROPOSED FACILITIES TO PROVIDE PROTECTION AGAINST FLOWS THAT MIGRATE OR SUDDENLY MOVE TO THE PROJECT SITE FROM OTHER PORTIONS OF THE FAN.

5. ANALYZE HOW THE CONCENTRATED FLOOD WATER AND ASSOCIATED SEDIMENT LOAD WILL BE DISPOSED OF AND THE EFFECT OF THOSE METHODS ON ADJACENT PROPERTIES.

General Notes:

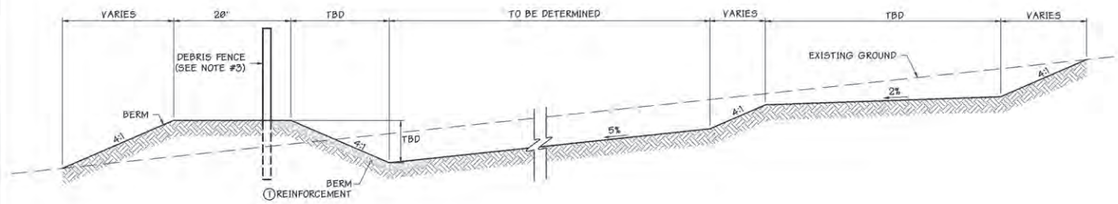
① STRUCTURES MUST BE DESIGNED TO WITHSTAND SCOUR, EROSION, SEDIMENT DEPOSITION, HYDROSTATIC FORCES, IMPACT AND HYDRODYNAMIC FORCES, AND HIGH VELOCITY FLOWS.

② CONTINUAL MAINTENANCE IS ESSENTIAL FOR OPTIMAL OPERATION.



NOTE:
1. BASIN DIMENSIONS TO BE DETERMINED.

Diversion Berm/Ditch ② — NTS — 1

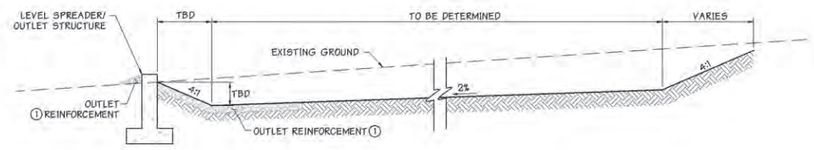


NOTE:
1. BASIN SHALL BE DESIGNED TO DRAIN WITHIN 3 DAYS AFTER END OF STORM EVENT.

2. BASIN DIMENSIONS TO BE DETERMINED.

3. DEBRIS FENCE IS A FENCE CONSTRUCTED TO PREVENT DEBRIS FROM LARGE RUNOFF EVENTS FROM BEING WASHED THROUGH PV SOLAR FIELD.

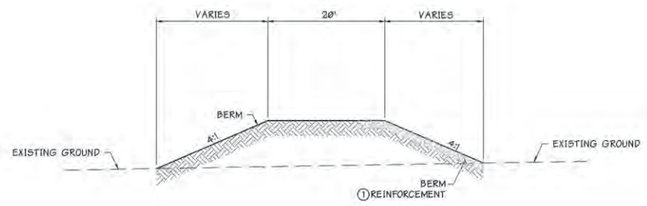
Debris Basin ② — NTS — 2



NOTE:
1. BASIN SHALL BE DESIGNED TO DRAIN WITHIN 3 DAYS AFTER END OF STORM EVENT.

2. BASIN DIMENSIONS TO BE DETERMINED.

Level Spreader/Detention Basin ② — NTS — 3



Berm — NTS — 4

Source: Carlton Engineering, Inc., 2009. Drawing P15242_CO2.dwg

FIGURE 1-7
Initial Site Drainage Plan, Cross-section
Silver State South Photovoltaic Power Project
Clark County, Nevada

CH2MHILL

- Certified weed-free hay bales will be used for erosion control and to contain vehicle station wash water
- Periodic monitoring of the construction site will be conducted to check for noxious weed infestations
- Areas subject to construction, such as the transmission right-of-way, will be rehabilitated and revegetated in accordance with the Rehabilitation Plan (see Section 2.13.3).

1.3.11 Waste and Hazardous Materials Management

1.3.11.1 Waste Management

The primary waste generated at the Project during operations will be nonhazardous solid and liquid wastes. The types of wastes and their estimated quantities are discussed below. NextLight will prepare a Waste Management Plan that will describe the storage, transportation, and handling of wastes and will emphasize the recycling of wastes where possible and will identify the specific landfills that will receive wastes that cannot be recycled.

1.1.1.1.1 Nonhazardous Solid Waste

The Project will produce facility wastes typically associated with facility operation and maintenance activities. These will include rags, broken and rusted metal and machine parts, defective or broken electrical materials, empty containers, the typical refuse generated by workers and small office operations, and other miscellaneous solid wastes. The quantity of all solid nonhazardous waste generated is estimated to be about 50 cubic yards per year (approximately 35 tons per year).

1.1.1.1.2 Nonhazardous Wastewater

Nonhazardous wastewater will be produced from occasional panel washing. The wash water will drip to the ground beneath the panels and evaporate. Solar module washing will take place twice per year.

The Project will generate onsite domestic water and sanitary sewer waste from the O&M facility. A sewage holding tank will be used to collect sanitary sewer waste.

1.1.1.1.3 Hazardous Waste

Limited quantities of hazardous materials will be used and stored on site for operation and maintenance. These materials will include hydraulic control fluid and transformer oil. A Spill Prevention, Control, and Countermeasures (SPCC) plan will be developed in accordance with federal regulations to protect the environment from spills of petroleum products. The SPCC will stipulate measures that will be taken to prevent spills, control them if they occur, and report spills as required to regulatory authorities and the BLM. NextLight will prepare hazardous materials management plans in accordance with Clark County regulations, including hazardous materials information sheets (Clark County Fire Code, Article 80), and flammable/combustible materials storage tank permits (Clark County Fire Code, Article 79).

Table 1-5 lists the hazardous materials anticipated to be stored and used on site along with the toxicity and storage practices for each material used in quantities in excess of 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases. Material Safety Data Sheets (MSDS) for each of these materials are provided in Appendix B.

TABLE 1-5
Hazardous Materials That May Be Used During Operation

Hazardous Material	Relative Toxicity[a] and Hazard Class[b]	Permissible Exposure Limit	Storage Description; Capacity	Storage Practices and Special Handling Precautions
Mineral Insulating Oil	Low toxicity Hazard class – NA	None established	Carbon steel transformers; total onsite inventory of 32,000 gallons	Used only in transformers, secondary containment for each transformer
Hydraulic fluid	Low to moderate toxicity; Hazard class – Class III-B combustible liquid	Time-weighted average (oil mist): 5 mg/m^3 Short-term exposure limit: 10 mg/m^3	will be transported to and from the site	Inventory will be stored in original containers in accordance with Clark County Fire Code requirements and conditions of Clark County Hazardous Materials Permit
Welding gas Acetylene	Moderate toxicity; Hazard class – Toxic	Permissible exposure limit: none established	will be transported to and from the site	Inventory will be stored in original containers in accordance with Clark County Fire Code requirements and conditions of Clark County Hazardous Materials Permit
Welding gas Oxygen	Low toxicity; Hazard class – Oxidizer	Permissible exposure limit: none established	will be transported to and from the site	Inventory will be stored in original containers in accordance with Clark County Fire Code requirements and conditions of Clark County Hazardous Materials Permit
Welding gas Argon	Low toxicity; Hazard class – Nonflammable gas	Permissible exposure limit: none established	Steel cylinders; 200 cubic feet each, 800 cubic feet total on site	Inventory will be stored in original containers in accordance with Clark County Fire Code requirements and conditions of Clark County Hazardous Materials Permit
Herbicide Roundup® or equivalent	Low toxicity; Hazard class – Irritant	Isoproplyamine salt of glyphosphate. No specific occupational exposure has been established.	brought on site by licensed contractor, used immediately	Inventory will be stored in original containers in accordance with Clark County Fire Code requirements and conditions of Clark County Hazardous Materials Permit

[a]Low toxicity is used to describe materials with an National Fire Protection Association (NFPA) health rating of 0 or 1. Moderate toxicity is used describe materials with an NFPA rating of 2. High toxicity is used to describe materials with an NFPA rating of 3. Extreme toxicity is used to describe materials with an NFPA rating of 4.

[b]NA denotes materials that do not meet the criteria for any hazard class defined in the 1997 Uniform Fire Code.

mg/m^3 = milligrams per cubic meter

Table 1-6 lists the wastes that may be generated at the facility, both hazardous and nonhazardous.

TABLE 1-6
Wastes Potentially Generated at the Facility

Waste	Origin	Composition	Estimated Quantity	Classification	Disposal
Lubricating oil	Small leaks and spills from the PV panel tracking lubricating oil system	Hydrocarbons	~55 gallons/yr	Hazardous	Cleaned up using sorbent and rags—disposed of by certified oil recycler
Oily rags	Maintenance, wipe-down of equipment, etc.	Hydrocarbons, cloth	260 lb/yr (~600 rags/yr)	Hazardous	Recycled or disposed of by certified oil recycler
Oil sorbents	Cleanup of small spills	Hydrocarbons	~100 lb/yr	Hazardous	Recycled or disposed of by certified oil recycler

1.3.12 Fire Protection

The Project's fire protection water system will be supplied from a dedicated raw water storage tank located near the O&M building, holding a minimum of 2 hours of full flow runtime (approximately 200,000 gallons). One electric and one diesel-fueled backup firewater pump will deliver water to the fire protection water-piping network. Fire protection pump flow rates will be in accordance with applicable standards. A smaller electric motor-driven jockey pump will maintain pressure in the piping network. If the jockey pump is unable to maintain a set operating pressure in the piping network, a main fire protection pump would start automatically. All fire protection system pumps must be shut off manually.

1.3.13 Site Security and Fencing

The solar field and support facilities perimeter will be secured with chain link metal-fabric security fencing. Controlled access gates will be located at the site entrance. The fence will be an 8-foot-high chain link fence with barbed-wire security strands at the top. Tortoise-proof half-inch hardware cloth metal mesh will be installed against the lower two feet of the chain link fence and will extend an additional one foot below the ground. Below ground this tortoise fencing will be angled outward, away from the solar collector field, to discourage burrowing tortoises. This purpose of the tortoise-proof fencing is to prevent federally listed desert tortoises from entering the solar field, where project-related activities could harm them. A fence made of frangible materials will be required in some areas to mitigate possible changes in flood flow due to debris build-up. Fencing during construction will consist of portable stand-alone chain link fence modules or plastic snow fencing supported by standard metal fenceposts. Tortoise fencing will be installed prior to construction along the boundaries of the construction zone to clearly mark this zone, preventing vehicles or personnel from straying onto adjacent offsite habitat.

1.3.14 Electrical Components, New Equipment, and Upgrades

1.3.14.1 Electrical Generation

The PV modules will convert sunshine into DC electricity. Between 1 and 3 MW of DC power will be collected from each of the multiple rows of PV modules through one or more combiner boxes and conveyed to an inverter. The inverter will convert the DC power to AC power, which then flows to a medium-level transformer that converts the output of the inverter to 34.5 kV. Multiple medium-level transformers are connected in parallel in a daisy chain configuration and collected at the Project substation, located on the adjacent Silver State North Project site, where the power will be stepped up to 220 kV for delivery to a new switchyard at the existing Eldorado-Mountain Pass transmission line where it will enter the transmission system.

1.3.14.2 Electrical System for Plant Auxiliaries

Power for plant auxiliaries will be supplied by back feed from the electrical grid, and/or a new distribution service line from the electrical utility's transmission system. Power from the distribution service will be stepped down to an appropriate voltage to support plant auxiliaries and connected to a switchgear/motor control centers (MCC). The MCC distributes power to the various plant loads during hours of darkness and when the solar array is not otherwise generating electricity.

Auxiliary electrical needs include power to drive the tracker drive motors to tilt them back to the east to be ready for the next day, and plant lighting and security.

1.3.15 Interconnection to the Electrical Grid

Power generated by the Project will interconnect with SCE's Eldorado-Mountain Pass transmission line, which runs on a southwest-northeast ROW approximately 2 miles north of the Project site (BLM ROW CC018367).[1] This line is currently rated at 115 kV; however, SCE plans to upgrade the line to 220 kV to increase capacity to accommodate renewable energy projects proposed in California and Nevada.

An approximately 2.5-mile-long transmission line from the Project substation will interconnect into a new 2.2-acre, 220-kV switchyard south of and adjacent to the existing SCE ROW. The switchyard will be owned by NextLight and will be surrounded by an 8-foot-high chain link fence with barbed security wire on top. For approximately 1.6 miles, the transmission line will run in a new ROW, and for approximately 0.9 mile it will run in an expansion to an existing ROW belonging to the Los Angeles Department of Water and Power (LADWP) (BLM ROW CC020824). The Eldorado-Mountain Pass transmission line will then be connected to the new switchyard. Section 3, Related Facilities and Systems, contains additional information.

The transmission line conductors (wires) will be made of non-reflective material and will be supported on approximately 80- to 125-foot-tall steel poles of a color that will minimize the visual impact. The transmission poles will be approximately 4 feet in diameter (at the base, tapering upward) and will be located approximately every 700 feet between the onsite transformer(s) and the offsite interconnection point. Larger poles, approximately 6 feet in

[1] The BLM right-of-way database indicates this is a 500-kV transmission line from McCullough switching station to Victorville owned by City of Los Angeles and does not identify the SCE Eldorado-Mountain Pass line.

diameter, will be required at angle points on the transmission line due to greater lateral load on the poles.

Alternatively, power from the Project could be transferred through the Silver State North Project substation to the NV Energy Higgins Power Plant Substation. This interconnection is described in the Silver State North Project POD.

1.3.16 Spill Prevention and Containment for Construction and Operation

A SPCC plan will be developed in accordance with federal regulations to protect the environment from spills of petroleum products.

1.3.17 Health and Safety Program

NextLight considers the health and safety of its employees and contractors to be the highest priority for Project construction and operation and will require that all employees and contractors adhere to appropriate health and safety plans and emergency response plans. All construction and operation contractors will be required by NextLight to operate under a health and safety program that is approved by NextLight and that meets industry standards. All contractors will be required to maintain and carry health and safety materials including the MSDSs of hazardous materials used on site.

1.4 Other Federal and Local Permit Requirements

NextLight submitted form SF-299 to the Las Vegas Field Office of the BLM to apply for an ROW grant. The BLM issued Serial Number NVN 085077. Table 1-7 lists other federal, state, and local permits required for the Project, and identifies the permitting agency, legal permit mandate, and process to apply for and obtain the permit or authorization. The master permit document will be the BLM's ROW grant. BLM assesses the potential environmental impacts of awarding an ROW grant through the NEPA EIS—and proposes mitigation measures for impacts that could otherwise be significant and adverse. BLM makes this determination in a Record of Decision (ROD). Appendix C provides a list of laws and regulations applicable to the Project, grouped by discipline.

NextLight will pursue other federal permits that may be necessary in parallel with the NEPA review process and in coordination with BLM. Environmental compliance review studies that are conducted to obtain other federal permits will be incorporated into the EIS scoping, review, and public involvement process. These studies will include identification of biological resources (rare plants, wildlife) to ensure compliance with the federal Endangered Species Act (ESA); identification of wetland resources, if any, to ensure compliance with the federal Clean Water Act (CWA); identification of any cultural resources to ensure compliance with National Historic Preservation Act (NHPA); as well as visual resources, air emissions, and noise assessments conducted as part of the NEPA process. Cooperating federal agencies may include the U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), and Nevada State Historic Preservation Office (SHPO).

TABLE 1-7
Federal, State, and Local Permits That May Be Required for the Project

Permit or Authorization	Project Action Requiring Permit	Mandate	Permit Requirement	Status
I. Federal Permits or Authorizations				
U.S. Department of the Interior, Bureau of Land Management				
Right-of-way	Lease of federal lands for the solar collector field, access road, holding tank, transmission line	BLM Solar Energy Development Policy dated April 4, 2007, stipulates that Applications for commercial solar energy facilities will be processed as ROW authorizations under Title V of the Federal Land Policy and Management Act (FLPMA) and Title 43, Part 2804 of the Code of Federal Regulations (CFR). Commercial concentrating solar power or photovoltaic electric generating facilities and that the BLM's "…policy is to facilitate environmentally responsible commercial development of solar energy projects on public lands and to use solar energy systems on BLM facilities where feasible."	Applicant prepares a Plan of Development describing the proposed action. BLM conducts environmental and other reviews before awarding a grant.	Plan of development under final review by BLM, leading to the Notice of Intent (NOI) to prepare an EIS
EIS Record of Decision	Lease of federal lands	NEPA requires environmental assessment review leading to a ROD for major projects on federal lands that may significantly affect the quality of the human environment.	Lead agency (BLM) prepares an EIS that assesses the potential environmental effects of constructing and operating the project leading to the Agency's ROD.	EIS to be prepared after NOI issued.

TABLE 1-7
Federal, State, and Local Permits That May Be Required for the Project

Permit or Authorization	Project Action Requiring Permit	Mandate	Permit Requirement	Status
U.S. Department of the Interior, Bureau of Land Management and State Historic Preservation Office/Advisory Council on Historic Preservation				
BLM/SHPO NHPA Section 106 Compliance	Ground disturbance associated with the solar collector field, access road, and transmission line	NHPA Section 106 requires that federal agencies take into consideration the effects of their undertakings on historic properties, which are properties eligible for listing in the NRHP.	The Applicant, on behalf of the federal agency (BLM), conducts an inventory of cultural resources within the Area of Potential Effects (APE), evaluates these to determine which are historic properties (significant properties), and determines potential project effects on these properties. The agency consults with SHPO to resolve any adverse effects to historic properties.	Application to conduct literature search and field survey.
U.S. Department of the Interior, Fish and Wildlife Service				
Endangered Species Act Section 7 Biological Opinion/Incidental Take Permit	Project construction on will be on federal land and will disturb the federally threatened desert tortoise habitat and harm or harass desert tortoises.	Endangered Species Act requires that federal agencies consult with USFWS regarding any undertaking or action having the potential to cause a take of species listed as threatened or endangered.	Applicant prepares a Biological Assessment that considers a project's potential impacts on species listed under the ESA and proposes measures to mitigate potential take of listed species. USFWS issues a Biological Opinion and, if required, Incidental Take Permit describing the conditions under which take of a listed species is allowed.	Applicant has conducted surveys to assess desert tortoise density

TABLE 1-7
Federal, State, and Local Permits That May Be Required for the Project

Permit or Authorization	Project Action Requiring Permit	Mandate	Permit Requirement	Status
U.S. Army Corps of Engineers				
Clean Water Act Section 404 Permit	Project construction will alter drainage in existing drainage channels that may be considered waters of the United States.	CWA Section 404 requires a permit for dredging or filling waters of the United States	Applicant prepares a report including a detailed delineation of wetlands and an analysis of whether or not they meet requirements to be considered jurisdictional (i.e. “waters of the United States”). USACE will determine whether or not drainage features are jurisdictional.	Applicant report in progress.
Federal Communications Commission				
Radio Station License	Operation of two-way radio communication System	47 CFR Part 90	FCC Review of license application	Not applied for
II. State of Nevada Permits or Authorizations				
Nevada Division of Forestry				
Permit to remove fully protected native flora	Project construction may disturb habitat of state-protected plants	Nevada Revised Statues 527.260-300	Department conducts a project review that includes a wildlife and habitat consultation.	Applicant will apply for this permit 3 months before construction begins.
Permit to remove cacti and yucca in commercial quantities	Project construction will result in removal of yucca and cacti	Nevada Revised Statues 527.060-120 and Nevada Administrative Code 527	Department issues as permit allowing for removal and transplantation of these species.	Applicant will apply for this permit 3 months before construction begins.
Nevada Division of Wildlife				
Permit to capture, kill, or possess protected wildlife	Project construction may disturb habitat of state-protected wildlife such as the banded gila monster.	Nevada Administrative Codes 503.090, and 503.093	Department conducts a project review that includes a wildlife and habitat consultation.	Consultation scheduled mid-2009

TABLE 1-7
Federal, State, and Local Permits That May Be Required for the Project

Permit or Authorization	Project Action Requiring Permit	Mandate	Permit Requirement	Status
Nevada Division of Environmental Protection (NDEP)				
Stormwater Discharge Permit (NOI)	Construction of the solar collector field and other project facilities has the potential to discharge sediment in stormwater and will involve disturbance of more than one acre.	National Pollution Discharge Elimination System (NPDES) requires filing an NOI to use the General Stormwater Discharge Permit and the preparation of a Stormwater Pollution Prevention Plan (SWPPP)	Project owner prepares the SWPPP and notifies the NDEP of its intention (NOI) to use the General Stormwater Permit. SWPPP must be kept on the construction site and available for inspection.	Applicant will prepare SWPPP and file NOI 3 months before construction begins.
CWA Section 401 Water Quality Certification	Project construction will alter drainage in existing drainage channels that may be considered waters of the United States.	CWA Section 401 requires a water quality certification to accompany the Section 404 permit.	Project owner prepares a permit application that describes any construction-related discharges and the methods proposed to protect water quality.	Applicant will apply for this permit 3 months before construction begins, if needed.
Nevada Public Utilities Commission				
Nevada Utility Environmental Protection Act Permit	The project will construct a 220-kV transmission line that will connect with SCE's Eldorado-Mountain Pass transmission line	The Nevada Utility Environmental Protection Act requires a permit for construction of transmission lines and substations that will connect with the grid. Nevada Revised Statutes 704.820 – 704.900	Project owner prepares an engineering project description and environmental impacts analysis.	Applicant will apply for this permit 6 months before construction begins.
Nevada State Fire Marshall				
Hazardous Materials Storage Permit	Project will involve handling of hazardous materials.	Nevada Revised Statute 477.045	Project owner applies for permit to store materials above the threshold quantities established by the State Fire Marshall.	Applicant will apply for this permit 3 months before construction begins.

TABLE 1-7
Federal, State, and Local Permits That May Be Required for the Project

Permit or Authorization	Project Action Requiring Permit	Mandate	Permit Requirement	Status
III. Clark County Permits or Authorizations				
Clark County Department of Air Quality and Environmental Management (DAQEM)				
Emergency Fire Pump Permit	Emergency diesel fire pump >35 hP	Clark County Air Quality Regulations	Project owner submits emissions and operating profiles	Applicant will apply for this permit 6 months before operation begins.
Dust Control Permit	Grading the collector field, access road, and transmission access would exceed one quarter acre	Section 94 of the Clark County Air Quality Regulations	Project owner submits an assessor's map, owner's designation, and per-acre fee.	Applicant will apply for this permit 3 months before construction begins.
Multi-Species Habitat Conservation Plan (MSHCP) Compliance (contingent)	This would apply only if the project were to affect non-federal lands (not currently planned) that are habitat for the desert tortoise	Federal ESA and Clark County MSHCP	Project owner pays desert tortoise mitigation fee as specified under the MSHCP	Probably not needed, as no private land that is habitat will be used.
Clark County Regional Flood Control District				
Land Development Review	Project construction will alter drainage in existing drainage channels	Any development which is not a subdivision shall be required to meet the requirements for subdivisions as outlined in these Regulations if the Local Administrator determines that the flood hazard so requires. If the proposed development would impact the implementation of the Master Plan, the Local Administrator shall defer to the Chief Engineer for a final determination. Clark County Regional Flood Control District Uniform Regulations for the Control of Drainage.	Development proposals must be submitted to the District for review if the development has regional flood control significance, meaning those facilities, land alterations, portions of the natural drainage system, and regulatory actions that impact the implementation of the Master Plan, or lie within Special Flood Hazard Areas.	Applicant will apply for this permit 6 months before construction begins.

TABLE 1-7
Federal, State, and Local Permits That May Be Required for the Project

Permit or Authorization	Project Action Requiring Permit	Mandate	Permit Requirement	Status
Floodplain Use Permit	Required if project will be located within an area of special flood hazard.	Clark County Regional Flood Control District Uniform Regulations for the Control of Drainage Section 10.070.	Applications for a Floodplain Use Permit shall include but not be limited to plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of material, drainage facilities; debris control structures; and the location of the foregoing, and if required, a Drainage Plan and Study.	Applicant will apply for this permit 6 months before construction begins.
Clark County Development Services Department				
Permit for Temporary Structures	Required for installation of temporary facilities.	Clark County Code, Title 22.02.120, Unified Development Code	Project owner obtains a third-party plan review/approval and files an application for a temporary building with Fire Prevention Bureau.	Applicant will apply for this permit 3 months before construction begins.
Building Permit for Permanent Structures	Required for construction and occupancy of project facilities	Clark County Code, Title 30.32.030, Unified Development Code	Project owner submits building permit application and plans.	Applicant will apply for this permit 6 months before construction begins.
Special use Permit and Design Review	The solar collector field and other project facilities will be considered a major construction project.	Clark County Code, Title 30.32.030, Unified Development Code	Project owner provides a Title 30 Land Use Application and site plan, elevation, floor plan, etc.	Applicant will apply for this permit 6 months before construction begins.
Waiver of Development Standards	Needed only if the facility would need to deviate from the Development Code	Clark County Code, Title 30.32.030, Unified Development Code	Project owner provides a Title 30 Land Use Application	Applicant will apply for this permit 6 months before construction begins.

TABLE 1-7
Federal, State, and Local Permits That May Be Required for the Project

Permit or Authorization	Project Action Requiring Permit	Mandate	Permit Requirement	Status
Grading Permit	Grading the collector field, access road, and transmission access.	Clark County Code, Title 30.32.040, Unified Development Code	Project owner submits grading and drainage plans to the County.	Applicant will apply for this permit 6 months before construction begins.
Civil Division Encroachment Permit (contingent)	Would be required only if construction would encounter public right-of-way	Clark County Code, Title 30.80 and 30.32, Unified Development Code	Project owner submits plans and assessor's parcel maps.	Applicant will apply for this permit 6 months before construction begins.
Land Disturbance Permit Report (contingent)	This would apply only if the project were to affect non-federal lands (not planned) that are habitat for the desert tortoise	Clark County Code, Title 30.32.050, Unified Development Code	Project owner must document payment of fees required under the Clark County MSHCP and the County's Section 10(a) Incidental Take Permit	Unlikely to be needed, as project will not affect habitat on private land.
Clark County Fire Department, Fire Prevention Bureau				
Permit Survey Form	Applies to all development projects	Clark County Fire Code	Project owner fills out Permit Survey Form and submits to Fire Department for the department to determine what hazards exist that warrant a permit. Additionally, project owner completes/submits *Application for Permit/Plan Review or Other Services* for all permit application submittals.	Applicant will apply for this permit 3 months before construction begins.
Hazardous Materials Permit	Storage and use of hazardous materials at the facility	Clark County Fire Code, Article 80	Project owner prepares and submits site plans and Hazardous Materials Information Sheets for hazardous materials with quantities in excess of permitting thresholds.	Applicant will apply for this permit 3 months before construction begins.

State and local permits will also be required for stormwater management, industrial wastewater discharges and air emissions. The project will require a number of state permits from agencies including the Nevada Divisions of Wildlife, Forestry, Water Resources, Environmental Protection, Department of Transportation, and Public Utilities Commission. The Project will also require local permits from agencies including the Clark County Department of Air Quality and Environmental Management, Development Services Department, Fire Department, and Division of Environmental Protection.

1.5 Financial and Technical Capability of the Applicant

NextLight is an energy development company headquartered in San Francisco, California. NextLight's principal purpose is the development of cost-effective, utility-scale generating facilities using proven solar technologies. In their previous roles, members of the NextLight team have procured over 2,500 MW of renewable energy and have developed, permitted, constructed, and operated over 8,000 MW of generation in the western United States.

NextLight is a wholly owned subsidiary of Energy Capital Partners (ECP) and was formed to respond to the growing demand for clean, carbon-free renewable generating capacity. ECP is a $2.25 billion private equity fund dedicated to investing in North American energy infrastructure. ECP has a diversified investor base consisting of over 120 limited partners, which include university endowments and state pension funds.

Members of ECP's senior management team have played leading roles in the acquisition of over 130 energy-related assets with a value of over $10 billion. ECP's principals and senior management have previously held senior leadership positions at Goldman Sachs Power, Orion Power, Constellation Energy Commodities Group, and U.S. Generating Company.

Together, the two firms bring expertise in energy development and financing and the financial resources to build large-scale renewable projects.