

CHAPTER 1 - INTRODUCTION, PURPOSE AND NEED

1.1 INTRODUCTION

In Executive Order (EO) 13212 of May 18, 2001 (Actions to Expedite Energy-related Projects), President George W. Bush ordered that executive departments and agencies take appropriate actions “to expedite projects that will increase the production, transmission, or conservation of energy.” Section 211, of the Energy Policy Act of 2005 (EPAAct). (Public Law [PL] 109-58) states “...that the Secretary of the Interior should, before the end of the 10-year period beginning on enactment of this Act, seek to have approved non-hydropower renewable energy projects located on public land with a generation capacity of at least 10,000 megawatts (MW) of electricity.”

According to the U.S. Department of the Interior (DOI), federal public lands offer some of the highest renewable energy potential in the nation. The DOI manages 500 million acres of land, one-fifth of the land mass of the United States. On March 11, 2009, Secretary of the Interior Ken Salazar issued a Secretarial Order that made facilitating the production, development, and delivery of renewable energy on public land a top priority for the DOI. Within the DOI, the Bureau of Land Management (BLM) administers approximately 253 million acres of public land in the United States. The BLM has identified approximately 23 million acres in the Southwest as containing high solar energy potential.

The BLM Solar Energy Development Policy establishes a framework to process applications for rights-of-way, and directs the BLM to be responsive to solar energy project applicants, while maintaining its commitment to resource protection. In 2007, the BLM issued Instruction Memorandum Number 2007-097, which established policy for the processing of right-of-way applications for solar energy development projects on public land administered by the BLM. Under this policy, the BLM strives to balance the financial and social benefits from solar energy development with minimizing impacts to other resources.

According to the 2005 Nevada Renewable Energy and Energy Conservation Task Force Annual Report to the Legislature and the Governor, Nevada utilities will need in excess of 3,000 gigawatt hours per year of new renewable energy generation capability over the next 10 years to meet the state’s renewable energy needs. The State of Nevada has established a Renewable Portfolio Standard that all public utilities must meet by investing in, and partnering with, commercial project developers to purchase renewable generated power, and participate in turnkey projects and/or co-development of renewable projects. This standard mandates that 12 percent of retail sales come from renewable resources by 2009-2010; 15 percent by 2011-2012; 18 percent by 2013-2014; 20 percent by 2015-2019; 22 percent by 2020-2024; and 25 percent by 2025.

Of the total amount of electricity that the provider is required to generate, acquire, or save from renewable portfolio energy systems or efficiency measures during each calendar year, not less than 5 percent of that amount must be generated or acquired from solar renewable energy systems. Beginning in 2016, this percentage increases to 6 percent. It is expected that at least 1,000 MW of new solar power will be required annually to meet this need. Because of the

intermittent nature of solar generation, there is particular interest in technologies that can expand capacity through thermal storage, in order to help utilities balance loads.

Further, the Nevada Renewable Energy and Conservation Task Force has estimated that by increasing in-state renewable energy production to just 15 percent of the state's generation, over 5,000 new jobs could be created, with an average annual Gross State Product effect of \$665 million through 2035 (2005).

Additional solar generation will also be required to meet California's needs. Under Senate Bills 1078 (2002) and 107 (2006), electric corporations must obtain 20 percent of their energy from renewable sources by 2010. On November 17, 2008, the Governor of California signed Executive Order S-14-08 which increased the requirement to 33 percent by 2020. Following the Report of the Nevada Renewable Energy Transmission Access Advisory Committee (July 1, 2009), California is examining the possibility of meeting the 33 percent Renewable Portfolio Standard requirement through out-of-state generation. To do so would assume a potential of 34 terawatts of energy routed to California from or through Nevada by 2020. This energy transfer is equivalent to approximately 12,900 MW of capacity from wind or concentrated solar power resources, assuming a 30 percent capacity factor.

Solar Millennium, LLC (Proponent) is pursuing economic stimulus funding for the proposed Project under Section 1703 of the EPAct. Section 1703 authorizes loan guarantees for renewable energy projects and certain other projects. To be eligible for a loan guarantee under Section 1703, a project must "avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gasses" and "employ new or significantly improved technologies" in comparison to commercial technologies currently used in the United States. A loan guarantee would reduce the cost financing required for the Amargosa Farm Road Solar Energy Project (Project), and therefore the gross Project cost over the Project's lifetime. In addition, the Proponent may pursue funding under Section 1603 of the EPAct, which was established pursuant to the American Reinvestment and Recovery Act of 2009 (PL No. 111-5). Section 1603 provides a 30 percent tax grant for eligible renewable energy projects that commence construction by the end of 2010. The U.S. Congress may extend this deadline.

1.2 PROJECT OVERVIEW

The Proponent submitted a right-of-way application to the BLM Pahrump Field Office to construct and operate the proposed Project on BLM-managed land in Amargosa Valley, Nevada.

The proposed Project includes the construction and operation of two 250-MW dry-cooled solar power plants equipped with thermal energy storage capability and associated ancillary linear facilities. Facilities located within the Project area would occupy approximately 4,350 acres and would include solar fields, power blocks, an office and maintenance building, parking area, lay-down area, switchyard, evaporation ponds, and a stormwater detention basin. Additional elements of the proposed Project would include access roads and optional water pipelines.

The Proponent's proposed Project would utilize parabolic trough solar thermal technology to produce electrical power using steam turbine generators fed by solar steam generators. The main element of a parabolic trough power plant is the solar field. The solar field consists of numerous

parallel rows of solar collectors, arranged on a north-south axis. The solar collectors follow the path of the sun from east to west during the day to keep the sun's rays continuously focused on a receiver tube. The reflectors consist of parabolic mirrors made from transparent, silver-coated glass, which concentrate the incident solar radiation 80-fold, focusing it onto the receiver tube in the solar collector. The receiver tube contains a heat transfer fluid (HTF), which is a temperature-stable synthetic oil in a closed circuit that can be heated to temperatures of up to 752 degrees Fahrenheit (°F) (400 degrees Celsius [°C]). Once heated, the oil is pumped to a centrally located power block, where it flows through a heat exchanger.

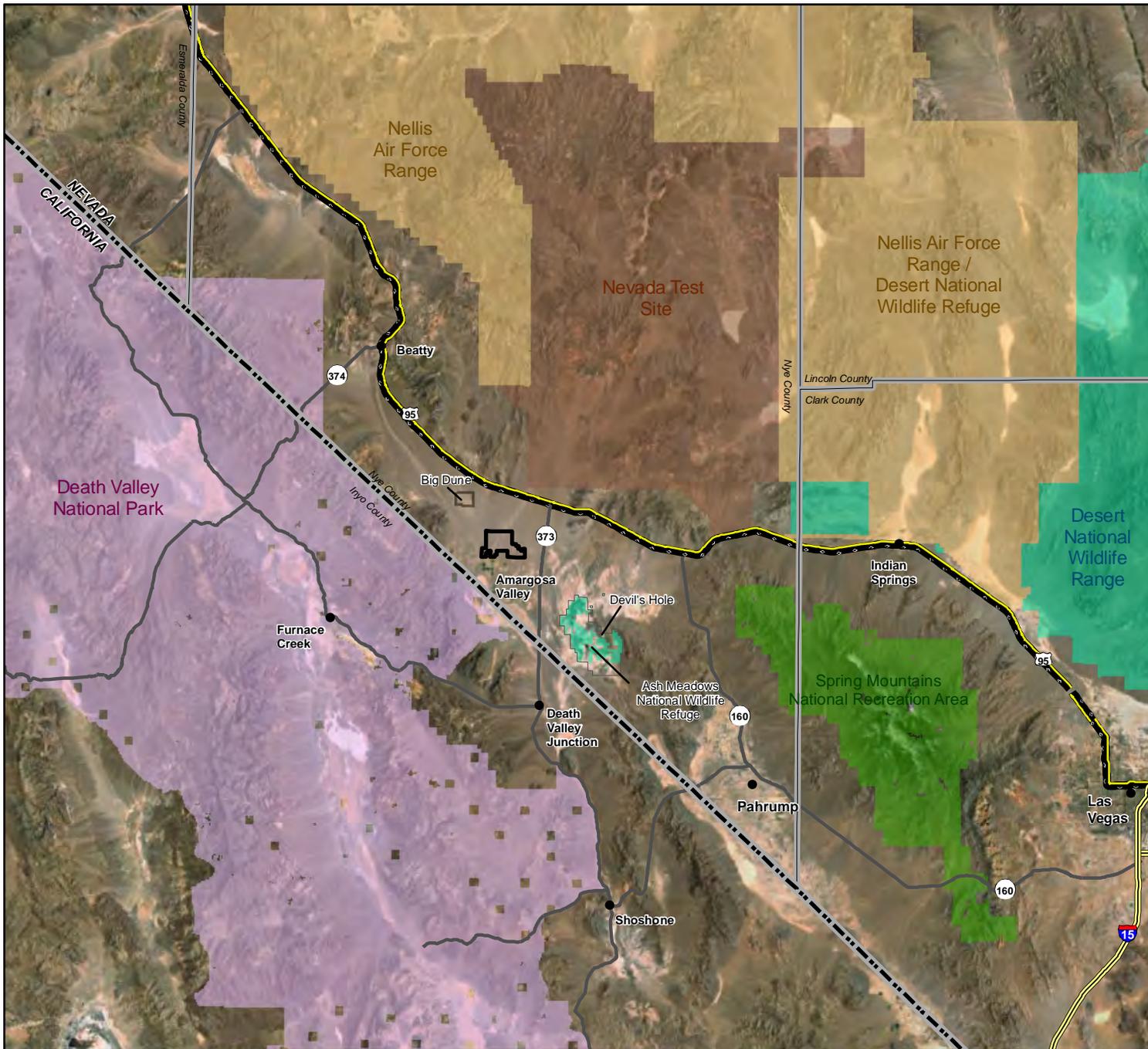
The remainder of the process is similar to the steam cycle used in conventional power plants. The steam produced by the heat exchanger is used to drive a turbine connected to a generator, which produces electricity to be fed into a substation. The steam in the turbine condenses back into the water and the water is re-circulated through the solar field. With solar thermal technology, the heat is stored (referred to as thermal storage) and used during periods of cloud cover and up to 4.5 hours after sundown.

At this time, it is anticipated the proposed Project would be built in two separate phases, with the construction of the first phase beginning in 2011, or immediately following issuance of the BLM right-of-way grant and other federal, state, and local permits and approvals. The Proponent would phase construction so that the first power plant would be operational approximately 1 year before the second power plant becomes operational.

1.3 PROJECT LOCATION

The proposed Project is located on BLM-administered lands, approximately 80 miles northwest of Las Vegas, in the Amargosa Valley in Nye County, Nevada (Figure 1-1). Some portions of the proposed Project would be located on private property, including a 40-acre parcel south of Amargosa Farm Road and the well and pipelines to be used to supply water to the proposed Project.

The Project area is located approximately 5 miles south of United States Highway 95 (US 95) and 3 miles west of Nevada State Route (NV) 373. The majority of the proposed Project area would be located north of Amargosa Farm Road, and east of Valley View Boulevard. The initial right-of-way application and subsequent Plan of Development (POD) erroneously stated the area of the right-of-way to be 7,810 acres. The actual area, by legal description, is 7,630 acres. On August 6, 2009, the Proponent sent a letter to the BLM requesting a reduction in the acreage from 7,630 acres to 6,320 acres. The Proponent's decision to release a portion of the requested lands from further consideration was based upon refinement of the Project layout following surveys conducted in the spring of 2009. The lands released from further consideration are shown on Figure 1-2.



Amargosa Farm Road Solar Energy Project (NVN-84359)

Project Vicinity Figure 1-1

LEGEND

- Project Area
- #### Surface Management
- Department of Defense
 - Department of Energy
 - National Park Service
 - US Fish and Wildlife Service
 - US Forest Service

- #### General Reference Features
- Interstate
 - US Highway
 - State Highway
 - State Boundary
 - County Boundary
 - City / Town



Source: Surface Management - BLM, 2007;
Ash Meadows - USFWS, 2005;
Highways, Imagery - ESRI, 2009

February 2010



Amargosa Farm Road Solar Energy Project (NVN-84359)

Project Area Figure 1-2

LEGEND

-  Initial Right-of-way Limits (November 2007)
-  Revised Right-of-way Limits (August 2009)
-  Lands Released from Consideration for Project
-  Proposed Solar Field
-  Proposed Project Well
-  Existing Substation
-  Existing Transmission Line (<230KV)
-  Private Parcel Line

Note: The Power Block contains the steam turbine, salt storage tanks and other power generating equipment as described in the Plan of Development.



Source: Project Facilities - Solar Millennium, 2009;
Wells - Nevada State Engineer, 2008;
Substation, Transmission Line - Platts, 2009;
Imagery - ESRI, 2009

September 2010

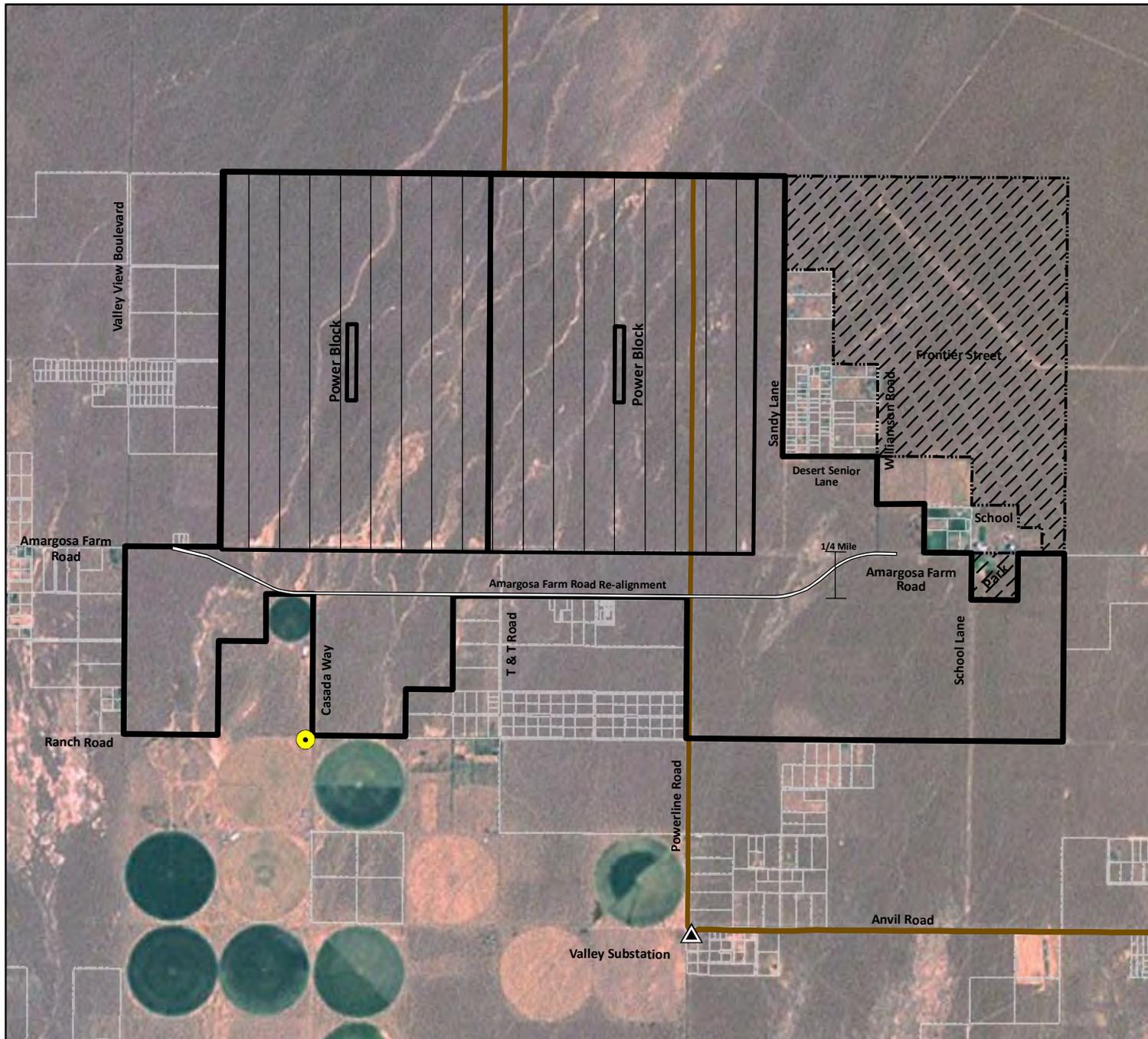


Table 1-1 Legal Description of Proposed Project		
Township (T)	Range (R)	Section/Portion
T16 South	R48 East	Sec. 1 and 12 – all
T16 South	R48 East	Sec. 2, 11, 13, and 14 – Partial Section
T16 South	R49 East	Sec. 6, 7, and 17 – all
T16 South	R49 East	Sec. 5, 8, 9, 16 18 – Partial Section

1.4 PURPOSE AND NEED FOR ACTION

1.4.1 Bureau of Land Management Purpose and Need

The BLM’s purpose and need is to respond to the Proponent’s application under Title V of the Federal Land Policy and Management Act (FLPMA) (43 United States Code [USC] § 1701-1782) for a right-of-way grant to construct, operate and decommission a 500 MW solar thermal generation facility and associated infrastructure in accordance with FLPMA, BLM right-of-way regulations (40 Code of Federal Register [CFR] Part 2800), and other applicable federal laws. The BLM will decide whether to approve, approve with modification, or deny issuance of a right-of-way grant to the Proponent for the proposed Project. That is, the decision the BLM will make is whether or not to grant the requested right-of-way, and if so, under what conditions.

1.4.2 Proponent’s Proposal

The Proponent’s objectives and purpose of the proposed Project are to:

- Develop a utility-scale parabolic trough solar thermal energy facility that optimizes power generation efficiency and provides energy at a reasonable and competitive cost.
- Construct and operate an environmentally compatible, economically sound, and operationally reliable solar power generation facility that will contribute approximately one million MW hours of clean, renewable solar energy per year to meet state, regional, and national renewable energy goals and mandates.
- Locate the Project in an area with high solar insolation (i.e., high intensity of solar energy) and other characteristics suitable for the development of a 500-MW solar thermal facility.
- Minimize environmental impacts, infrastructure needs, and costs by locating the plant near existing infrastructure, such as a transmission line, a substation, an adequate water supply, and highways/access roads, and by using designated corridors to the maximum extent possible.

- Develop a power-generation facility with the technical capability and flexibility to continue producing electricity when the solar resource is not optimal (i.e., during cloud cover and early evening hours) to better match the load demands of utility offtakers.
- Develop a solar thermal energy facility that will qualify for, and benefit from, the EPAct Section 1703 loan guarantee program, as well as the EPAct Section 1603 American Reinvestment and Recovery Act of 2009 Tax Grant Program, if the deadline for construction under Section 1603 is extended. Support the economy of southern Nevada and the region by helping to ensure an adequate supply of renewable electrical energy, while creating additional tax revenues, employment, and expenditures in local businesses.

1.5 SCOPE OF ANALYSIS

The NEPA process consists of an evaluation of the environmental effects of a federal project or action undertaking. Under NEPA, federal agencies must consider the environmental effects of their actions. NEPA directs federal agencies to “utilize a systematic, interdisciplinary approach ... in planning and decision-making, which may have an impact on man’s environment,” to ensure that environmental amenities and values ... be given appropriate consideration in decision-making along with economic and technical considerations,” and to “study, develop, and describe appropriate alternatives to recommended courses of action..” This mandate applies to all “major federal actions” (Title 43, Part 1500 CFR). As a result, NEPA affects most decisions regarding the use of public lands.

The preparation of an EIS follows a highly formalized process, consisting of eight major steps:

1. Issue the Notice of Intent (NOI) to prepare an EIS
2. Conduct public and agency scoping
3. Prepare the interdisciplinary analysis of the issues and alternatives
4. Issue the Draft EIS
5. Conduct the public review and comment period
6. Issue the Final EIS, which includes responses to comments on the Draft EIS
7. 30-day waiting period
8. Issue the ROD

1.5.1 The Environmental Impact Statement Decision Framework

This EIS analyzes and discloses the environmental impacts of the proposed Project, as well as alternatives chosen by the BLM as detailed in Chapter 2. The EIS provides an analysis of impacts that would result from the implementation of the proposed Project or alternatives. The EIS process is designed to encourage public participation in the BLM’s decision-making process and identifies mitigation measures to address environmental consequences.

1.5.2 Decisions to be Made After this Environmental Impact Statement

In the EIS, in addition to the proposed Project (Proposed Action), several alternatives to the proposed Project are identified and analyzed. The decisions made regarding the Proposed Action and alternatives will be documented in a ROD signed by the authorized officer. The BLM decision will only apply to public lands.

Within the ROD, the authorized officer will determine whether:

- the analysis contained in this EIS is adequate for the purposes of reaching an informed decision regarding authorizing a right-of-way
- to approve the Proposed Action, select a different alternative, select a combination of alternatives, or deny the right-of-way request
- the Proposed Action and alternatives are in conformance with applicable land and resource management plans (RMP)

1.6 RELATIONSHIP TO BLM AND NON-BLM POLICIES, PLANS, AND PROGRAMS

If approved, the Proposed Action must be consistent with the BLM Las Vegas RMP/EIS, approved by a ROD dated October 5, 1998 (BLM 1998). The RMP/EIS has been reviewed and it is determined the proposed Project conforms with adopted management objectives and directions as summarized in the RMP and the ROD under the authority of the FLPMA of October 21, 1976, as amended (43 USC §§1701-1782).

This EIS was prepared in compliance with: CEQ regulations for implementing the NEPA (40 CFR §§ 1500-1508; 43 CFR Part 46); the BLM NEPA Handbook, H-1790-1; FLPMA Sections 201, 202, and 206 (43 USC §§ 1711, 1712, 1716; see also 43 CFR § 1600 et seq.); and the BLM Land Use Planning Handbook (BLM Handbook H-1601-1). The BLM also has Instruction Memorandum 2004-105, 149, 231, and 2005-105, which set NEPA compliance policy for the BLM.

Applications for commercial solar energy facilities on BLM-administered lands are processed as a right-of-way authorization under Title V of FLPMA. Title V states that, in “designating right-of-way corridors and in determining whether to require that the right-of-way be confined to them, [BLM] shall take into consideration national and state land use policies, environmental quality, economic efficiency, national security, safety, and good engineering and technological practices.” FLPMA further directs that each right-of-way permit contain terms and conditions to protect federal property and economic interests, protect lives and property, and otherwise protect the public interest in the lands traversed by the right-of-way or adjacent to them (43 USC § 1765).

Table 1-2 is a representative list of federal, state, and local laws, statutes, and EOs that may apply to the siting, construction and operation of the proposed Project. If the Project were approved, the Proponent and its contractors would comply with requirements set forth in these directives, as applicable.

Table 1-2 Laws, Statutes, Regulations, and Executive Orders with which the Proposed Action and All Alternatives Must Conform
Federal Statutes
American Indian Religious Freedom Act of 1978 (PL 95-341; 42 USC 1996)
Archaeological and Historic Data Preservation Act of 1974 (PL 86-253, as amended by PL 93291; 16 USC 469)
Archaeological Resources Protection Act of 1979 (PL 96-95; 16 USC 470aa-mm)
Bald and Golden Eagle Protection Act of 1940 (16 USC 668-668d, 54 Stat. 250) as amended (PL 95-616 [92 Stat. 3114]) November 8, 1978
Clean Air Act of 1990 (as amended by PL 92-574; 42 USC 4901)
Federal Water Pollution Control Act (Clean Water Act) (33 USC 1251-1387)
Department of Transportation Act of 1966, (PL 89-670; 49 USC Section 303)
Endangered Species Act of 1973 (ESA) (PL 85-624; 16 USC 1531-1544)
EPA Act of 2005 (PL 109-58)
Farmland Protection Policy Act (PL 97-98 and 7 CFR Part 658)
FLPMA of 1976, Section 201(a) (PL 94-579; 43 USC 1701 et seq.)
Federal Water Pollution Control Act of 1972, Section 404 (PL 92-500; 33 USC 1344, as amended)
Historic Sites Act of 1935 (PL 292-74; 16 USC 461-467)
Land and Water Conservation Fund Act of 1965 (PL 88-578)
Migratory Bird Treaty Act of 1918 (MBTA) (16 USC 703-712, as amended)
NEPA of 1969 (PL 91-190; 42 USC 4321; 43 CFR Part 46)
National Historic Preservation Act of 1966 (NHPA), Section 106, (PL 89-665; 16 USC 407(f))
Native American Graves Protection and Repatriation Act of 1990 (PL 101-601)
Paleontological Resources Preservation Act 2009 (PRPA) (PL 111-11; 16 USC 470aaa)
Executive Orders
EO 11296 Flood Hazard Evaluation Guidelines
EO 11514 Protection and Enhancement of Environmental Quality
EO 11593 Protection and Enhancement of the Cultural Environment
EO 11988 Floodplain Management (43 CFR 6030)
EO 11990 Protection of Wetlands
EO 12898 Federal Actions to address Environmental Justice (EJ) in Minority Populations and Low-income Populations

Table 1-2 Laws, Statutes, Regulations, and Executive Orders with which the Proposed Action and All Alternatives Must Conform
EO 13007 Indian Sacred Sites
EO 13186 Responsibilities of Federal Agencies to Protect Migratory Birds
EO 13212 Actions to Expedite Energy-related Projects
EO 13287 Preserve America
EO 123772 Intergovernmental Review of Federal Programs
Federal Regulations
40 CFR Parts 1500-1508 CEQ implementation of the NEPA
33 CFR 320-331 and 40 CFR Part 230, Section 404 of the Clean Water Act (CWA) and its Implementing Regulations
36 CFR Part 800, as amended, Protection of Historic Properties
7 CFR Part 658, as amended, Prime and Unique Farmlands
43 CFR Part 2800, as amended, Right-of-way Principles and Procedures
State Laws and Statutes
NAC 503.015-104 Classification and Taking of Wildlife
NRS 527.060-120 Protection and Preservation of Timbered Lands, Trees, and Flora – Definitions Cactus and Yucca
NRS 527.270 List of species declared to be threatened with extinction; special permit required for removal or destruction
NRS 503.584-589 Protection and Propagation of Native Fauna
NRS 503.430 Water pollution: Deposit of substance deleterious to fish or wildlife; penalties
NRS 503.597 Introduction or removal of aquatic life or wildlife: Approval required; investigation; regulations
NRS 503.620 Protection of birds included in the MBTA
NRS 533.030 Adjudication of Vested Water Rights; Appropriation of Public Waters – Appropriation for beneficial use; use for recreational purpose declared beneficial; limitations and exceptions
NRS 533.035 Adjudication of Vested Water Rights; Appropriation of Public Waters – Beneficial use; Basis, measure and limit of right to use
NRS 534.020 Underground waters that belong to the public and are subject to appropriation for beneficial use; declaration of legislative intent
NRS 555.005 Agriculture – Control of Insects, Pests, and Noxious Weeds, Definitions
Definitions: NAC – Nevada Administrative Code; NRS – Nevada Revised Statute; et seq. – “and the following”

The Proponent, or its designees, is responsible for applying for and acquiring the federal, state, and local permits and approvals listed in Table 1-3.

Table 1-3 Authorizations, Permits, Reviews, and Approvals			
Action Requiring Permit, Approval, or Review	Permit/Approval or Review	Accepting Authority/ Approving Agency	Statutory Reference
Federal			
Temporary Land Use Permit; Form 2920	Temporary Use Permit (pre-operational activities on BLM land)	BLM	43 USC 1201; 43 CFR Part 2920
Rights-of-way Over Land Under Federal Management; Form SF-299	Right-of-way Grant	BLM	FLPMA (PL 94-579) USC. 1761-1771 and 43 CFR 2800
NEPA Compliance to Process Right-of-way Application	EIS and ROD	BLM	NEPA, 40 CFR 1500 et. seq.
NHPA Compliance to Process Rights-of-way Application	Section 106 Compliance or Consultation	BLM/Nevada State Historic Preservation Office (SHPO)	NHPA, 36 CFR part 800; 16 USC 47; NRS Chapter 384
Compliance with the ESA	Review by BLM to initiate Section 7 consultation	BLM/U.S. Fish and Wildlife Service (USFWS)	ESA Section 7 Consultation, 50 CFR Part 17, 16 USC 1536
Dredge or Fill Activities in Waters of the United States; Dry Wash Crossings	Jurisdictional Delineation Report Concurrence, Nationwide or Individual Permit	U.S. Army Corps of Engineers (USACE)	33 USC 1344
Project Component Height Relative to Air Traffic	No Hazard Declaration required if any structure is more than 200 feet	Federal Aviation Administration	49 USC 1501, 14 CFR Part 77
U.S. Environmental Protection Agency (EPA) ID Number	Compliance with federal hazardous waste management requirements	EPA	40 CFR Part 124, 260, and 270
Oil Pollution Prevention – Spill Prevention, Control, and Countermeasure (SPCC) Plan	If total aboveground storage capacity of oil is greater than 1,320 gallons, then a SPCC Plan is required.	EPA – Office of Emergency Services	40 CFR Part 112, and Section 311(j) of the CWA
Review of Project for its potential impact on military over flights and operations	U.S. Department of Defense (DOD) R 2508 Complex Sustainability Office	U.S DOD	U.S. DOD
State of Nevada			
Permit to Construct a Public Utility in Nevada	Utility Environment Protection Act – Permit to Construct	Nevada Public Utility Commission	NRS 704.820 – 704.900, NAC 703.415 – 703.427

Table 1-3 Authorizations, Permits, Reviews, and Approvals

Action Requiring Permit, Approval, or Review	Permit/Approval or Review	Accepting Authority/ Approving Agency	Statutory Reference
Discharge of Stormwater to Waters of the State	Construction Stormwater General Permit (NVR 100000)	Nevada Division of Environmental Protection (NDEP) – Bureau of Water Pollution Control (BWPC)	40 CFR122.26(b)(14), NRS 445A.465
Section 401 Certification	Required if Section 404 permit is needed – State certification that federal permit does not violate water quality standards	NDEP – Bureau of Water Quality Planning (BWQP)	Section 401 of CWA
Separate Stormwater Permit for operations	General Stormwater Permit for Industrial Activities	NDEP – BWPC	NRS 445A.465
Temporary permit needed for groundwater discharge associated with construction	Groundwater Discharge Permit	NDEP – BWPC	NRS 445A.465
Operating Permit Class I, II, or III (depending on Calculated Potential to Emit)	Air Quality Operating Permit	NDEP – Bureau of Air Pollution Control (BAPC)	NRS 445B.100 through 445B.640, NAC 445B.001 through 445B.3689 (operating permits outside Clark County)
Construction activities disturbing more than 5 acres	Stand-alone Surface Disturbance Permit	NDEP – BAPC	NAC 445B
Permit to Store, Use of Manufacture Hazardous Materials at a Facility	Hazardous Materials Permit	State Fire Marshal	NAC 477.323, NAC 477.325
Permit to Appropriate Water; Change of Use	Permit to Appropriate the Public Water of the State of Nevada	Nevada Division of Water Resources (NDWR)	NRS 533 and 534
Public Water System Permit	Non-community Water System	NDEP – Bureau of Safe Drinking Water	NRS 445, NAC 445A.450 through 445A.6731
Use of a Highly Hazardous Substance	Chemical Accident Prevention Program/ Authority to Construct and Permit to Operate	NDEP	NRS 459.380
Management of Hazardous Waste	Hazardous Waste Management Permit	NDEP – Bureau of Waste Management	NRS 459.400 through 459.600
Transporting of Hazardous	Hazardous Materials	Nevada Department of	NRS 459.400 through

Table 1-3 Authorizations, Permits, Reviews, and Approvals			
Action Requiring Permit, Approval, or Review	Permit/Approval or Review	Accepting Authority/ Approving Agency	Statutory Reference
Materials	Transportation Permit	Transportation (NDOT)	459.600
Solid Waste Class II Wavered Landfill Authorization	Approval to Operate a Solid Waste System	NDEP – Bureau of Waste Management	NRS 444.440 through 444.645
General Permit to Operate Septic System	On-site Sewage Disposal System	NDEP BWPC	NRS 445A, NAC 445A
Construction of Evaporation Ponds	Industrial Artificial Pond Permit	Nevada Department of Wildlife (NDOW)	NRS 502.390, NAC 502.460 through 502.495
Disturbance of any Native Plant Species and/or Native Plant Habitat Regarded as Threatened with Extinction	Conditional Permit for Disturbance or Destruction of Critically Endangered Plants	Nevada Division of Forestry	NAC 527.260 through 527.300
Disturbance of Wildlife and/or Wildlife Habitat (Not specific to endangered species)	Written Approval Prior to Handling Any Wildlife as Defined by the State of Nevada	Nevada Division of Wildlife	NRS 445, 501.181, and NRS 503.597; NAC 503.093 and 504.520
Encroachment or Construction Activities within Highway Right-of-way	Right-of-way Occupancy Permit	NDOT	NAC 408
Pressure vessel specification and certifications	Boiler & Pressure Vessel Certificate	Nevada Industrial Relations Division	NRS 455C.100
Required for extraordinarily large or oversized equipment traveling on state roads or unusual impacts to traffic are anticipated	NDOT Super Load Permit	NDOT	NRS 484.471
Nye County			
Building and operation fire safety	Fire Safety Compliance Certification	Nye County Bureau of Fire Prevention	Nye County Code
Certification of flood zone location	Flood Damage Prevention Permit	Nye County Planning Department	Nye County Code
Type, location, duration of encroachment onto public roadway	Encroachment Permit	Nye County Department of Public Works	Nye County Code
Building Permit (for structures)	Building Permit	County Building Division	Nye County Code

1.7 AGENCY COORDINATION

1.7.1 Cooperating Agencies

Cooperating agency status provides a formal framework for governmental agencies to engage in active collaboration with a federal agency to implement the requirements of the NEPA (42 USC §4321 et seq.). Federal and state agencies and local and tribal governments may qualify as cooperating agencies because of “jurisdiction by law or special expertise” (40 CFR §§1501.6-1508.5).

The BLM invited nine agencies to consider becoming a cooperating agency. Agencies invited to participate include:

1. USFWS
2. U.S. DOD, Regional Environmental Coordination Office
3. DOE, National Nuclear Security Administration
4. Federal Highway Administration
5. National Park Service (NPS), Death Valley National Park
6. USACE, Sacramento District
7. NDOW
8. NDOT
9. Nye County

The U.S. DOD, DOE, NPS, USACE, NDOW, and Nye County have formally requested to be cooperating agencies for the Proposed Action. Each of these agencies has agreed to participate as a cooperating agency and review material for the EIS pertaining to their legal and regulatory responsibilities. The Federal Highway Administration, USFWS, and NDOT declined the invitation.

1.7.2 Native American Consultation

The BLM conducts consultation and coordination with American Indian tribal governments for proposed projects that may affect their ancestral lands. On June 17, 2009, the BLM sent formal consultation letters to representatives of the Timbisha Shoshone Tribe, the Pahrump Paiute Tribe, the Las Vegas Paiute Tribe, the Chemehuevi Indian Tribe, and the Colorado River Indian Tribes describing six proposed solar energy projects in the Amargosa and Pahrump Valleys, Nye County, including the proposed Project. On August 5, 2009, the same tribes were e-mailed information about the Project’s scoping meetings if they wished to attend and make comments. A field visit was conducted with the Timbisha Shoshone in the Project area to review the archaeological resources identified during the cultural resource inventory on September 17, 2009. At this time, no religious or cultural concerns have been brought forth to the BLM concerning this proposed Project or Project area by any of the Tribes contacted.

1.7.3 Section 7 Consultation

A species list was requested from the USFWS, which identified flora and fauna listed as threatened, endangered, or candidate under the ESA and that occur or have the potential to occur within the Project area and its vicinity. At the request of the USFWS, rare plant and Desert Tortoise surveys were conducted within the Project area. A Biological Assessment (BA) has been prepared for the Proposed Action and was submitted in May 2010 to the USFWS as required by Section 7 of the ESA. Consultation with the USFWS was triggered once the BA was submitted. Consultation with the USFWS is ongoing. However, a Biological Opinion will be issued prior to the ROD for this Project.

1.8 PUBLIC INVOLVEMENT

Chapter 5, Consultation and Coordination, contains an in-depth discussion of the public involvement process and the issues raised by the public and other agencies during that process.

1.9 CHANGES BETWEEN THE DRAFT AND FINAL EIS

In response to public comments on the Draft EIS, the BLM has made a number of changes to the Final EIS. The most substantive changes are listed below, and, as many comments requested, they provide greater certainty regarding the proposed Project's features and potential impacts. Editorial and grammatical changes to improve accuracy, clarity, consistency, and improved readability also have been made to the Final EIS based on public comment and internal review. Please refer to Appendix G for a compilation of all public comments received during the comment period and how they have been specifically addressed in the Final EIS.

Selection of Project Well – The Draft EIS evaluated the use of three separate wells for Project use. However, following issuance of the Draft EIS, the Proponent determined that only one of the wells considered would be needed for construction and operation (see Section 2.3.6). The well, with associated certificated water right 5717, has an annual duty of 603 acre-feet. On March 18, 2010, the Proponent filed an application (No. 79699) with the Nevada State Engineer's Office to change the place and manner of use of the water right. The Proponent has requested that 400 acre-feet of the 603 acre-feet annual duty be changed from agricultural to industrial use. Following approval of a second application (No. 79783) by the Nevada State Engineer, the Proponent intends to drill a new well approximately 300 feet west of the existing well and move 400 acre-feet from its current point of diversion to the new well. The remaining 203 acre-feet will remain with the existing well. This will allow for redundancy should one of the wells fail. During construction, the Proponent will lease the full annual duty (603 acre-feet per year [afy]) from the water rights holder for the Project well. During this period, the water rights holder will fallow farmlands that were previously irrigated. After construction, the water rights holder may continue to irrigate up to 40 acres of farmland with the 203 acre-feet assigned to the existing well.

Addition of Evaporation Pond(s) to Manage Industrial Wastewater Flow – Through refinement of the Project design and subsequent to the issuance of the Draft EIS, the Proponent has informed the BLM that the Proposed Action would require the construction and operation of

four 4-acre (16 acres total) evaporation ponds for boiler blowdown. These evaporation ponds would be placed within the existing Project footprint and would disturb no additional land surface areas beyond what was previously analyzed. While the residue in the evaporation ponds represents an additional waste stream that would require off-site disposal, the volume and frequency of such disposal would not be substantially different than previously analyzed. Evaporation ponds are a primary concern for biological resources, particularly impacts resulting from the attraction of migratory and resident avian species, which could lead to inadvertent poisoning due to concentrated salt and other minerals or accidental drowning. Evaporation ponds also have the potential to impact water quality. The Proponent will coordinate the construction and operation of the evaporation ponds in consultation with NDEP to ensure the project is designed and operated to meet all federal, state, and local laws and regulations. At a minimum, the evaporation ponds would be double-lined and covered with narrow-mesh netting to prevent access by ravens and migratory birds in accordance with applicable regulations. Air quality impacts of construction and operation of the evaporation ponds would not be substantially different than previously analyzed.

Project-specific Air Quality Modeling – Emission tables in the Final EIS have been revised to reflect project-specific impacts. In the Draft EIS, the air quality modeling was for a facility in California that utilized similar technology in a similar climate. Because Nevada and California have different regulations for air quality monitoring and reporting, there is some inconsistency between what was reported in the Draft EIS and what is now reported in the Final EIS. Air quality modeling has now been completed for the proposed Project. The emission tables provided in Chapter 4.1 of the Final EIS reflect the results of modeling that was done for the proposed Project, which will be regulated by NDEP – BAPC.

Water Resources Mitigation Measures – Following issuance of the Draft EIS and as part of the Section 7 ESA consultation between the BLM and USFWS, minimization measures specifically designed to reduce impacts to sensitive species occurring at the Ash Meadows NWR and Devils Hole were developed and agreed to by the Proponent, BLM, USFWS, NPS, and Nye County (see Section 2.3.6 and Appendix A). To address the NPS, USFWS, and BLM concerns that the proposed groundwater withdrawals associated with the proposed Project—in combination with existing groundwater withdrawals in the vicinity of Devils Hole and the Ash Meadows NWR - may adversely affect federal rights and resources, the Proponent has agreed to acquire no less than 236 afy of preferably senior groundwater rights in the vicinity of the water right to be used for the proposed Project, or closer to Devils Hole and Ash Meadows NWR. The 236 afy consists of 204 afy identified as “Minimization Water Rights” (see Appendix A), and an additional 32 afy to offset the potential reduction in groundwater return flow as a result of changing the manner of use from agricultural to industrial. Preference will be given to rights that are currently used for agricultural purposes. The acquired rights will preferably be historically fully utilized. If fully utilized rights totaling 236 afy are unavailable for purchase, sufficient rights will be purchased such that the cumulative total of the historic pumping average is no less than 236 afy. This may result in the purchase of more than 236 afy of water rights. At this time, it is unknown where the additional water rights will be obtained.

1.10 ORGANIZATION OF THE FINAL EIS

This EIS follows the CEQ recommended organization per 40 CFR 1502.10, and BLM guidelines as described in the BLM Handbook, H-1790-1. Table 1-4 describes the organization of the Final EIS.

Table 1-4 Organization of the Final EIS	
Chapter 1 – Introduction, Purpose and Need	This chapter provides a description of the purpose of, and need for, the Proposed Action, the role of the BLM in the EIS process, and the required regulatory actions for the proposed Project. The Final EIS includes a summary of changes between the Draft and Final EIS.
Chapter 2 – Proposed Action and Alternatives	This chapter describes the Proposed Action and alternatives analyzed in the EIS, including the No Action Alternative. Alternatives that were considered but eliminated from further analysis are described, with a discussion of why they were not considered further.
Chapter 3 – Affected Environment	This chapter describes the existing environment that could be affected by granting the rights-of-way requested by the Proponent. The existing environment includes the social and natural environment.
Chapter 4 – Environmental Effects	This chapter describes possible environmental consequences of the Proposed Action and alternatives analyzed in the EIS. Direct, indirect, and cumulative effects of the Proposed Action and alternatives are assessed and described in order to allow for comparative impact evaluation. Impacts are compared to the social and natural environment that would be expected to exist if no action were taken (the No Action Alternative).
Chapter 5 – Consultation and Coordination	This chapter describes public participation undertaken to date, and additional opportunities that would occur throughout the EIS process. It also lists agencies and organizations that will receive copies of the Draft EIS for review and lists the preparers of the document.
Chapter 6 – References	This chapter includes a list of references used in the preparation of the Final EIS.
Chapter 7 – Glossary	This chapter includes a glossary of technical terms used.
Chapter 8 – Index	Index listing of keywords used in the Final EIS.

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