CHAPTER 1 - INTRODUCTION, PURPOSE AND NEED

1.1 Introduction

In Executive Order 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 (EPAct). (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 of electricity."

According to the U.S. Department of the Interior (DOI), 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 Instructional 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. The BLM would strive to balance the financial and social benefits from this Proposed Action while 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 (GWh/yr) of new renewable energy generation capability over the next 10 years to meet the state's renewable energy needs (2005). 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. It is expected that at least 1,000 megawatts (MW) of new solar power will be required annually to meet this need.

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).

In addition, solar energy projects that commence construction in 2010 can qualify for funding under the American Recovery and Reinvestment Act (ARRA) of 2009 P.L. 111-5 (the "Recovery Act"). The Recovery Act created Section 1705 authorizing a new program for rapid deployment of renewable energy projects and related manufacturing facilities, electric power transmission projects, and leading edge biofuels projects. The primary purposes of the Recovery Act are job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization. The Section 1705 Program is designed to address the current economic conditions of the nation, in part, through renewable energy, transmission and leading edge biofuels projects. The proposed Project is one of several solar projects in the western United States that are considered by the federal government to be potentially eligible for ARRA funding. A loan guarantee would reduce the cost financing and therefore the gross project cost over the life of the Project.

1.2 Project Overview

Solar Millennium, LLC (Proponent) submitted a right-of-way application to the BLM Pahrump Field Office to construct and operate the proposed Amargosa Farm Road Solar Energy Project (Project) on BLM-managed land in Amargosa Valley, Nevada.

The proposed Project includes the construction and operation of two 232-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, 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 2010, 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 at the south end of the Project area, and three water supply wells southwest of the Project area. The Project area is located approximately 5 miles south of United States Highway 95 (US 95) and 3 miles west of Nevada State Route 373 (NV 373). The majority of the proposed Project area would be located north of Amargosa Farm Road, and east of Valley View Road. The initial right-of-way application and subsequent Plan of Development 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 1-1.

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 for the proposed Project is to respond to the Proponent's application under Title V of the Federal Land Policy and Management Act (FLPMA) (43 U.S.C. § 1761) for a right-of-way grant to construct, operate and decommission a solar thermal generation facility and associated infrastructure in accordance with FLPMA, BLM right-of-way regulations, 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. The decision the BLM will make is whether or not to grant the right-of-way, and if so, under what conditions.

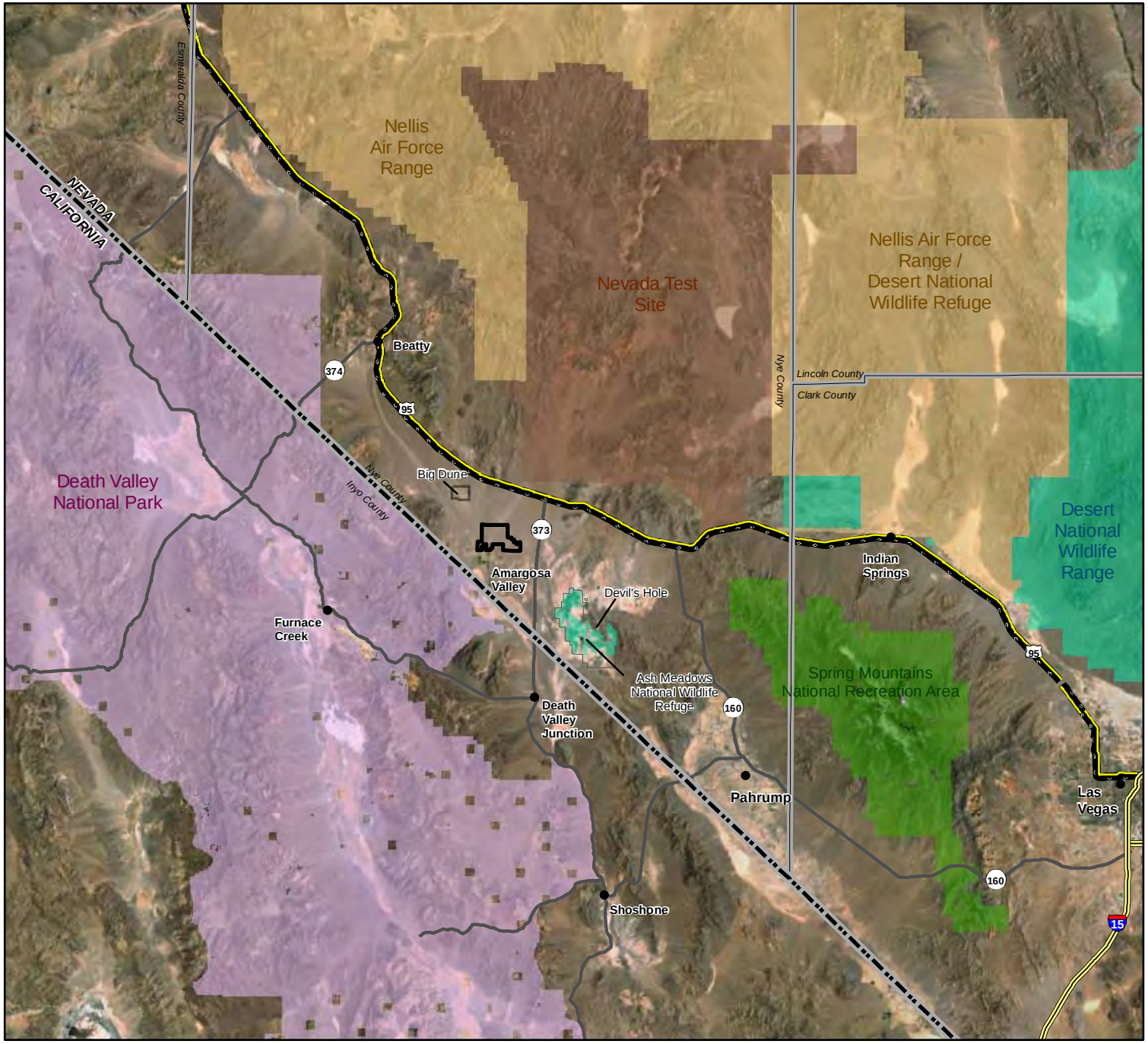
1.4.2 Department of Energy's Purpose and Need

If the Department of Energy (DOE) decides to enter into negotiation of a possible loan guarantee with the Proponent, the DOE would likely become a cooperation agency in developing the Final Environmental Impact Statement (EIS). If the DOE accepts the Proponent's application as suitable for funding, the DOE may adopt this EIS to meet their National Environmental Policy Act (NEPA) requirements in making a determination of funding. The purpose and need for action by DOE would be to comply with its mandate under the EPAct by selecting eligible projects that meet the goals of the EPAct.

When the Final EIS is completed and made available to the public by the BLM, the DOE will carry out an independent review to ensure that DOE comments have been addressed and that the Proposed Action is substantially the same as the action described in the EIS. If these conditions are met, the DOE will adopt the Final EIS without recirculating it pursuant to the Council on Environmental Quality (CEQ) NEPA regulations at 40 CFR 1506.3(c).

While the Final EIS is being developed, the DOE will also be carrying out a detailed financial, technical, and legal evaluation of the proposed Project in the course of negotiating the terms and conditions of a possible federal loan guarantee pursuant to its procedures set out at 10 CFR Part 609. The DOE may reach agreement on a conditional commitment for a loan guarantee prior to completion of the Final EIS and the BLM issuance of the right-of-way grant. Should this be the case a condition precedent will be included in the conditional commitment requiring that the NEPA review and the BLM right-of-way grant process be completed before DOE closes the loan guarantee transaction.

Following conclusion of the NEPA process and the BLM decision, the DOE will issue a Record of Decision (ROD) and proceed to close the loan guarantee transaction provided that the Proponent has satisfied all the detailed terms and conditions contained in the conditional commitment and other related documents, and all other contractual, statutory, and regulatory requirements.



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

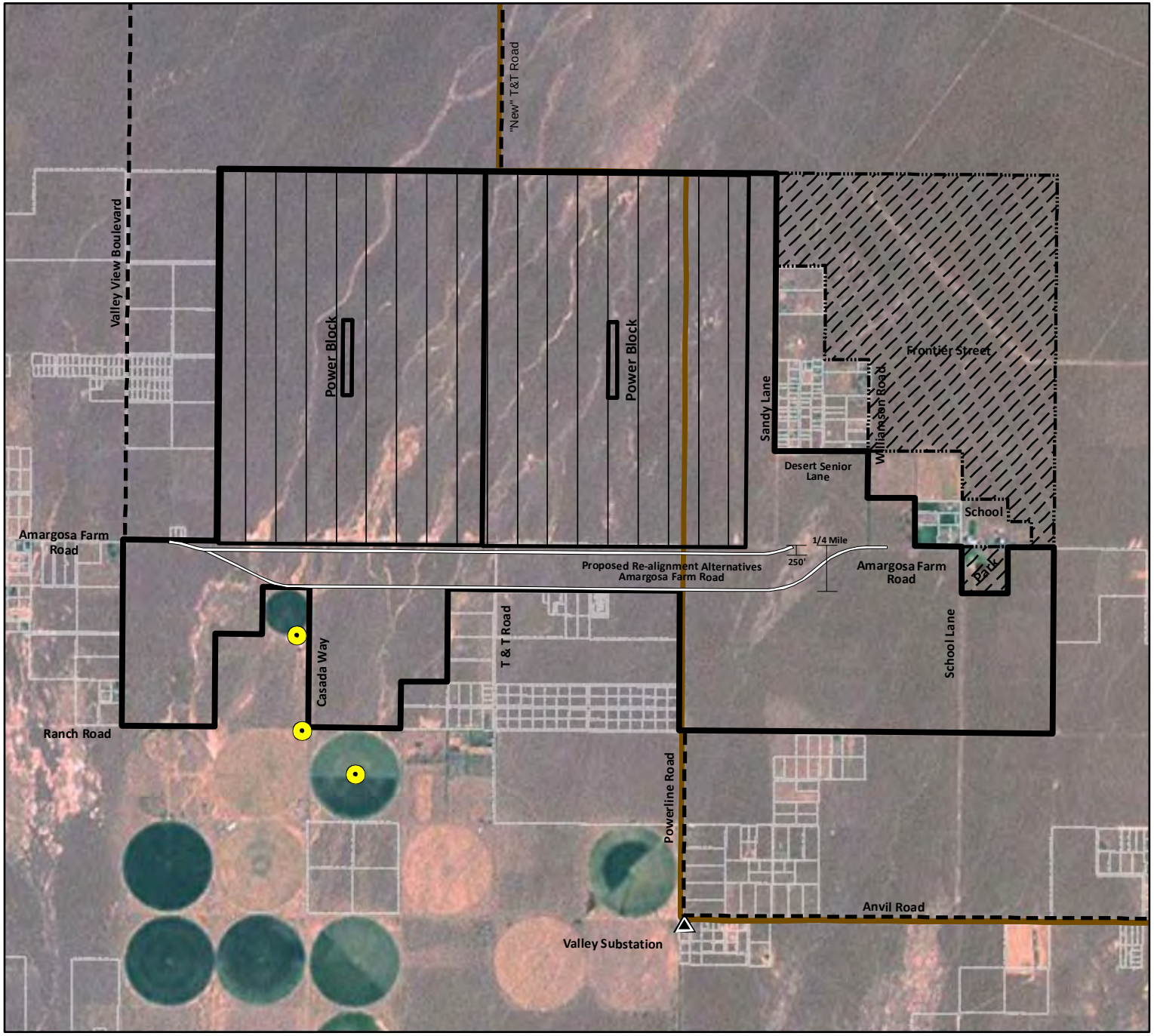
- Interstate
- US Highway
- State Highway
- State Boundary
- County Boundary
- City / Town

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

February 2010

0 10 20 Miles

This page intentionally left blank.



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
- Alternative Access Road
- 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

February 2010

0 0.5 1 Miles

1.4.3 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 renewable energy goals
- Locate the Project in an area with high solar insolation (i.e., high intensity of solar energy)
- 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 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 ARRA Grant Program
- Support the economy of southern Nevada by helping to ensure an adequate supply of renewable electrical energy, while creating additional tax revenues, employment, and expenditures in local businesses

As of December 2009, the proposed Project was one of 31 renewable energy project that have met the required milestones to remain on BLM's fast-track list for expediting processing. Fast-track projects are those where the companies involved have demonstrated to the BLM that they have made sufficient progress to formally start the environmental review and public participation process. These projects are advanced enough in the permitting process that they could potentially be cleared for approval by December 2010, thus making them eligible for economic stimulus funding under ARRA.

1.5 Scope of Analysis

The NEPA process consists of an evaluation of all relevant environmental effects of a federal project or action undertaking. Under NEPA, federal agencies must integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those 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, the NEPA affects virtually all 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
7. 30-day waiting period
8. Issue the Record of Decision (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. This Draft EIS does not contain final decisions regarding the Proposed Action or alternatives.

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 Pahrump field manager. The BLM decision will only apply to public lands.

Within the ROD, the Pahrump field manager 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

1.6 Relationship to Bureau of Land Management and non-Bureau of Land Management Policies, Plans, and Programs

If approved, the Proposed Action must be consistent with the BLM Las Vegas Resource Management Plan (RMP)/EIS, approved by ROD on 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 1761 et. seq.).

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 CFR § 1600); 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 guide and 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". The 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 Executive Orders that may apply to the construction and operation of the proposed Project. The Proponent and its contractors would comply with requirements set forth in these directives, as applicable.

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 1-2 Laws, Statutes, Regulations, and Executive Orders with which the Proposed Action and All Alternatives Must Conform
Federal Laws and 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)
Department of Transportation Act of 1966, (PL 89-670; 49 USC Section 303)
Endangered Species Act of 1973 (PL 85-624; 16 USC 661, 664 1008)
Energy Policy 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 (16 USC 703-712, as amended)
NEPA of 1969 (PL 91-190; 42 USC 4321)
National Historic Preservation Act of 1966, 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
Executive Orders (EO)
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 in Minority Populations and Low-income Populations
EO 13007 Indian Sacred Sites

Table 1-2 Laws, Statutes, Regulations, and Executive Orders with which the Proposed Action and All Alternatives Must Conform
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
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 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: CEQ – Council on Environmental Quality; CFR – Code of Federal Register; EO – Executive Order; NAC – Nevada Administrative Code; NRS – Nevada Revised Statutes; PL – Public Law; et seq. – “and the following”; USC – United States Code

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 1976 (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 Part 1500 et. seq.
National Historic Preservation Act Compliance to Process Rights-of-way Application	Section 106 Compliance or Consultation	BLM/Nevada State Historic Preservation Office	National Historic Preservation Act of 1966, 36 CFR part 800; 16 USC 47; NRS Chapter 384
Compliance with the Endangered Species Act	Review by BLM to initiate Section 7 consultation	BLM/USFWS	Endangered Species Act 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	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 Clean Water Act
Review of Project for its potential impact on military over flights and operations	Department of Defense R 2508 Complex Sustainability Office	US Department of Defense	Department of Defense
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	40 CFR § 122.26(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	Section 401 of CWA
Separate Stormwater Permit for operations	General Stormwater Permit for Industrial Activities	NDEP - Bureau of Water Pollution Control	NRS 445A.465
Temporary permit needed for groundwater discharge associated with construction	Groundwater Discharge Permit	NDEP - Bureau of Water Pollution Control	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	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 – Bureau of Air Pollution Control	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	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 Materials	Hazardous Materials Transportation Permit	Nevada Department of Transportation	NRS 459.400 through 459.600

Table 1-3 Authorizations, Permits, Reviews, and Approvals			
Action Requiring Permit, Approval, or Review	**Permit/Approval or Review**	**Accepting Authority/ Approving Agency**	**Statutory Reference**
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 Bureau of Water Pollution Control	NRS 445A, NAC 445A
Construction of Evaporation Ponds	Industrial Artificial Pond Permit	Nevada Department of Wildlife	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 504.520
Encroachment or Construction Activities within Highway Right-of-way	Right of Way Occupancy Permit	Nevada Department of Transportation	NAC 408
Pressure vessel specification and certifications	Boiler & Pressure Vessel Certificate	NV Industrial Relations Division	NRS 455C.100
Required for extraordinarily large or oversized equipment traveling on state roads or unusual impacts to traffic are anticipated	Nevada Department of Transportation Super Load Permit	Nevada Department of Transportation	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 and 1508.5).

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

1. Department of Defense (DOD), Regional Environmental Coordination Office
2. Department of Energy (DOE), National Nuclear Security Administration
3. Federal Highway Administration (FHWA)
4. National Park Service (NPS), Death Valley National Park
5. U.S. Army Corps of Engineers (USACE), Sacramento District
6. Nevada Department of Wildlife (NDOW)
7. Nevada Department of Transportation (NDOT)
8. Nye County

The 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 FHWA, 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 by the BLM for this proposed Project area by any of the Tribes contacted.

1.8 Public Scoping

Public scoping is an integral part of the NEPA planning process. It provides "an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a Proposed Action" (40 CFR 1501.7). Public and agency input is solicited in order to identify the range, or scope, of issues to be addressed during the environmental analysis and in the EIS. Initiation of the EIS process and the public scoping meetings for the proposed Project were announced through the Federal Register, BLM press releases, paid advertisements in the media, and postings on the BLM Project website. These activities are described below.

1.8.1 Federal Register Notice of Intent

The BLM Federal Register NOI, published on July 13, 2009 (Volume 74, Number 132, Page 33458), marked the beginning of the public scoping period for the Project EIS. The scoping period, required to be a minimum of 30 days, was announced as ending on August 12, 2009. Public scoping meetings were not conducted within this time period; therefore, a second notice was published in the Federal Register on September 17, 2009 (Volume 74, Number 179, Page 47820), reopening public scoping. This reopened scoping period was announced as ending on October 19, 2009. Four scoping meetings were held from August 17 through August 24, 2009, and one information meeting was held on September 22, 2009.

1.8.2 Media Notices

The BLM prepared a media release to introduce the proposed Project, announce the initial scoping meetings, and invite the public to provide input. The news release was issued on August 12, 2009 to local and regional newspapers, congressional offices, television stations, and radio stations. A second news release was issued on September 3, 2009, announcing the reopening of the scoping period.

In addition, paid advertisements were published in the following local newspapers:

- *Las Vegas Review-Journal* – legal ad published on July 31, 2009
- *Pahrump Valley Times* – display ads published on July 31, 2009 and September 18, 2009

1.8.3 Direct Mailings

A public scoping notice was prepared and mailed to inform the public about the scoping process for the preparation of the EIS and the scheduled scoping meetings. The public was invited to participate in the scoping process and to share any concerns or comments, submit information, and identify issues to be addressed during the EIS process.

The notice was mailed to federal, state, and local agencies; elected officials; Native American tribes; and special interest groups and organizations, during the week of August 3, 2009. The distribution list was compiled from a list of individuals, organizations, and agencies who had

expressed interest in other BLM Pahrump Field Office projects. In addition, the notice was mailed to postal customers in the Amargosa Valley (89020).

A second notice was mailed to individuals and agencies/organizations on the mailing list and the members of the public who signed in at public scoping meetings held in August 2009 for the proposed Project. The second notice was to inform the public of the public information meeting to be held in Beatty on September 22, 2009. This meeting was an opportunity for the public to submit comments during the reopened scoping period.

1.8.4 Project Website

The BLM Southern Nevada District Office is hosting a website to inform the general public about the Proposed Action. Information on the website includes public meeting announcements, a Project description, and the EIS planning process. The website is available at: http://www.blm.gov/nv/st/en/fo/lvfo.html.

1.8.5 Public Scoping Meetings

The BLM held four public scoping meetings to identify issues and concerns regarding the Proposed Action. These scoping meetings provided an opportunity for the public to learn about the Proposed Action and to provide comments. Meeting locations, dates, and times are provided in Table 1-4. In addition to the public scoping meetings, one public information meeting was held during the reopened scoping period.

Table 1-4 Public Scoping Meetings

Location	Date	Time	Attendance*
Beatty, Nevada	August 17, 2009	6:00 – 8:00 p.m.	34
Amargosa Valley, Nevada	August 18, 2009	6:00 – 8:00 p.m.	112
Pahrump, Nevada	August 21, 2009	6:00 – 8:00 p.m.	26
Las Vegas, Nevada	August 24, 2009	6:00 – 8:00 p.m.	60
Beatty, Nevada**	September 22, 2009	6:00 – 8:00 p.m.	66
		Total	**298**

*These counts reflect only those attendees who elected to sign in at the door
**Public information meeting following reopened scoping period.

1.8.6 Comment Methods

During the public scoping period (August 13 through October 19, 2009), a total of 151 comment documents were received. A comment document is defined as a method of response recorded as

part of a public scoping transcript, email, fax, letter, or comment form. Because some documents had more than one comment, the total number of comments received is greater than the number of respondents or individuals who submitted comments. Table 1-5 presents the method of submittal of all responses.

Table 1-5 Comment Method of Submittal

Method of Submittal	Number Received
Comment Form	17
Email	36
Letter or Fax	19
Oral Comments Submitted at the Scoping Meetings (transcribed from the court reporter transcript)	–
Beatty scoping meeting	6
Amargosa Valley scoping meeting	24
Pahrump scoping meeting	8
Las Vegas scoping meeting	22
Beatty information meeting	19
Total responses	**151**

1.9 Substantive Issues Identified During Scoping

Table 1-6 displays the relative interest of respondents who submitted comments on various topics. This breakdown is not intended to show bias towards any issue; it simply indicates the level of interest on various issues. All issues are addressed equally in the EIS.

Table 1-6 Topics of Interest

Comment Category	Number Received
NEPA and NEPA Process	101
Alternatives	87
Air Quality and Climate Change	59
Cultural Resources	8
Cumulative Impacts	39
Environmental Justice	4

Table 1-6 Topics of Interest	
Comment Category	**Number Received**
Fish and Wildlife	45
Floodplains	20
Geology and Mineral Resources	3
Health and Safety	77
Invasive Species	4
Lands and Access	66
Migratory Birds	13
Native American Religious Concerns	5
Noise	7
Recreation	5
Socioeconomic Resources	198
Soils	6
Special Management Areas	28
Threatened, Endangered, and Candidate Plant Species	18
Threatened, Endangered, and Candidate Wildlife Species	53
Transportation	48
Vegetation	37
Visual Resources	25
Waste (hazardous and solid)	40
Water Resources	164
Wetlands and Waters of the U.S.	15
Total	**1,175**

Table 1-7 summarizes the substantive issues and concerns derived from the scoping comments and indicate where each issue identified during scoping is addressed in the EIS. This summary is intended to reflect the comments received during the scoping phase equally and does not attempt to assign value to any input. Specific comments and context are not provided here, only issues represented in those comments that can be applied directly to preparation of the EIS. For example, some respondents provided their views on the value (negative or positive) of solar energy development; only the issue areas they raised in conjunction with their views are provided. Issue statements and questions to address the issues in the EIS can be found in the

public scoping report. Copies of the individual comments received during the scoping period are available for review at the BLM Pahrump Field Office.

Table 1-7 Issues Raised During Scoping	
Issues	**Section(s) of the EIS Where Addressed**
NEPA Process	
The EIS should consider how NEPA goals will be incorporated into the BLM's decision and describe how the proposed Project would be consistent with other national policy considerations.	1.1 – Introduction 1.5 – Scope of Analysis
Requests that the proposed Project be put on hold until all permits and easements have been received and the proposed Project has been reviewed by other agencies (e.g., Nevada Engineers Office, Federal Emergency Management Agency).	1.7 – Agency Coordination
Alternatives	
A reasonable range of management alternatives meeting the purpose and need should include alternative sites, capacities, and technologies, and include those that may not be within the jurisdiction of the lead agency.	2.2 – Alternatives Description
The three different technologies should be analyzed in the EIS: dry-cooling, hybrid cooling, and wet-cooling	2.2 – Alternatives Description
The BLM should consider other locations for the proposed Project that would reduce potential use conflicts and meet the Project purpose and need, even if they are not located on public land.	2.2 – Alternatives Description
Consider use of different solar energy technology, including the use of hybrid or dry-cooled systems or replacing trough technology with photovoltaic (PV).	2.2 – Alternatives Description
Air Quality	
Activities related to the construction and operation of the proposed Project has the potential to result in increased dust. Additionally, construction, operation, and mitigation of the solar generating facility could result in increased emissions.	4.1 – Air Quality
The EIS should identify the types of dust control to be used during construction and operation, and if water is to be used, the amount of water needed, and the source of the water.	4.1 – Air Quality
Air monitoring should be conducted before, during, and after facility construction and operation. Specific concerns were expressed regarding hazardous materials that may be present in airborne dust (e.g., uranium, radon, and other hazardous elements in surface soils).	4.1 – Air Quality 4.13 – Hazardous Materials and Solid Waste

Table 1-7 Issues Raised During Scoping	
Issues	**Section(s) of the EIS Where Addressed**
The EIS should include a discussion of ambient air conditions, National Ambient Air Quality Standards, and criteria pollutant nonattainment areas in all areas considered for solar development, and that the analysis should specify (1) the emission sources by pollutant from mobile sources, stationary sources, and ground disturbance; (2) the timeframe for release of these emissions over the lifespan of the Project; (3) proposed mitigation measures to minimize these emissions.	4.1 – Air Quality
The EIS should identify the need for an Equipment Emissions Mitigation Plan, to identify actions to reduce diesel particulate, carbon monoxide, hydrocarbons, and nitrogen oxide associated with construction activities for equipment such as drilling equipment, generators, compressors, graders, bulldozers, and dump trucks.	4.1 – Air Quality 4.13 – Hazardous Materials and Solid Waste
Cultural Resources	
Ground disturbing activities resulting from construction and operation of a solar generating facility have the potential to discover/disturb cultural resources in the area, including the physical integrity of sacred sites. The EIS should evaluate potential impacts on archaeological, cultural, and historical resources in the vicinity of the Project, including Native American resources, burial sites and artifacts, and historical mining operations and related artifacts.	3.7 – Historic and Cultural Resources 4.7 – Historic and Cultural Resources
Cumulative Impacts	
A number of other solar generating power facilities are being considered in southern Nevada and may impact a variety of resource values and uses, including water supply, endangered species, visual resources, wildlife, and threatened and/or endangered species habitat.	4.17 – Cumulative Impacts
Environmental Justice	
Environmental justice (minority and low income) populations may be affected by the construction and operation of the Project.	4.10 – Environmental Justice
Fish and Wildlife	
Concerns about wildlife habitat from depletion of water resources and impacts to wildlife from site development and facilities.	4.6 – Biological Resources
Concern that impacts may extend beyond the physical footprint of the Project area. Requests made that Project monitoring be conducted to evaluate Project impacts, and adoption of adaptive mitigation solutions be considered.	4.6 – Biological Resources

Table 1-7 Issues Raised During Scoping	
Issues	**Section(s) of the EIS Where Addressed**
Construction and operation of the facility could result in impacts to wildlife in the area, including: • impacts as a result of an increase in shade, dust, and heat, and impacts to wildlife species • impacts as a result of exposure to contaminants in evaporation ponds and/or stormwater ponds if these water structures attract wildlife, particularly migratory waterfowl and bats	4.6 – Biological Resources
Geology, Mineral Resources, and Soils	
The Project may have impacts to soil resources, and may cause soil erosion.	4.3 – Soils
Health and Safety	
Primary concerns were related to safety measures to be used during both construction and operation of the facility, and the proximity of the proposed Project to occupied residential areas (especially to residents living along Sandy Lane), and other built areas, including the Amargosa Elementary School and senior center.	4.9 – Socioeconomic Resources
Concerns regarding the potential for fire and explosions to occur at the site during operations.	4.9 – Socioeconomic Resources 4.13 – Hazardous Materials and Solid Waste
Lands and Realty	
Several right-of-way applications have been filed with the BLM for proposed solar generation facilities. One of the applications is for a proposed site immediately north of the Project and farther away from existing land uses.	2.2 – Alternatives Description
The EIS should describe the reasonably foreseeable future land use and associated impacts resulting from additional power supply in Amargosa Valley.	4.11 – Land Use, Recreation, Transportation and Access
The proposed Project area is located adjacent to existing residential and other community center uses (e.g., church, fire station, senior center).	4.11 – Land Use, Recreation, Transportation and Access
Native American Religious Concerns	
The EIS should address the existence of Indian sacred sites in the Project area and discuss how the BLM would avoid adversely affecting the physical integrity of sacred sites, if they exist.	3.7 – Historic and Cultural Resources 4.7 – Historic and Cultural Resources
The EIS should address EO 13007 and distinguish it from Section 106 of the NHPA.	3.7 – Historic and Cultural Resources

Table 1-7 Issues Raised During Scoping	
Issues	**Section(s) of the EIS Where Addressed**
Noise	
The noise of construction and operation of a solar generating facility may be heard from residential areas near the proposed Project.	4.5 – Noise
Recreation	
No designated recreational uses occur on public lands in the Project area; however, recreational use occurs in the nearby Big Dune Special Recreation Area.	4.11 – Land Use, Recreation, Transportation and Access
Socioeconomic Resources	
Comments about the operation of the proposed facility indicate an interest in the opportunities for employment this Project would generate.	4.9 – Socioeconomic Resources
The proposed Project may impact public services, including potential population influx and increased service needs (e.g., water supply, school attendance, police and fire protection, etc.).	4.9 – Socioeconomic Resources
Tax benefits may be available to local communities as a result of the proposed Project, including benefits to local tax payers and utility companies and lower property taxes.	4.9 – Socioeconomic Resources
Special Management Areas	
The Project area is not within or adjacent to any special management area. However, nearby special management areas may be sensitive to the uses proposed by the generation facility.	4.6 – Biological Resources 4.12 – Visual Resources
Threatened, Endangered, and Candidate Plant and Wildlife Species	
There may be threatened, endangered, and special status species and habitat in the Project area. What effect would construction and operation of a solar power generating facility and associated facilities have on local population of Endangered Species Act listed or candidate species or other special status species and suitable habitats?	4.6 – Biological Resources
Transportation	
The existing Amargosa Farm Road is proposed to be rerouted to accommodate the proposed Project and may affect local transportation.	4.11 – Land Use, Recreation, Transportation and Access
Project-related travel may result in increased traffic on Amargosa Farm Road through the local community.	4.11 – Land Use, Recreation, Transportation and Access
Visual Resources	
Construction and operation of a solar facility would introduce multiple structures and modifications to the landscape. The Project area is adjacent to residential areas and community infrastructure (e.g., senior center, fire station school).	4.12 – Visual Resources

Table 1-7 Issues Raised During Scoping	
Issues	**Section(s) of the EIS Where Addressed**
The proposed Project may have impacts on scenic quality and scenic vistas of the surrounding desert landscape.	4.12 – Visual Resources
What effects will the proposed Project have on viewers traveling to and from Death Valley National Park?	4.12 – Visual Resources
What effects will safety/night lighting have on the dark skies and stargazing opportunities?	4.12 – Visual Resources
What effects will a 0.25-mile landscape buffer have in mitigation or shielding views? Are there any design techniques that could blend the Project with the natural environment from a visual perspective?	4.12 – Visual Resources
Waste (Hazardous and Solid)	
The solar generating facility has the potential to produce hazardous waste and concentrated de-watered waste from evaporation ponds.	4.13 – Hazardous Materials and Solid Waste
Water Resources	
Construction and operation of the solar generation facility could result in impacts to the quantity of water, including groundwater and surface water sources. Project activities also have the potential to affect the quality of surface and groundwater as a result of Project discharges (i.e., stormwater, evaporation pond water, effluent).	4.4 – Water Resources
Operation of the proposed solar generating facility would require up to 4,000 acre-feet of water per year. Alternative sources of water should be considered to provide this needed supply. Additionally, other solar generating technologies are available, including PV, dry-cooling, and hybrid systems.	2.2 – Alternatives Description 4.4 – Water Resources
The EIS should disclose the specific locations, amounts, and well completions of existing water rights, which may be purchased or leased for this Project to facilitate a meaningful analysis of impacts; evaluate the extent to which these water rights have been fully utilized in the past (determine any increases in actual pumping, which may occur as a result of the full utilization of the rights); evaluate the impacts and cumulative impacts of the full utilization of these and other existing rights in the basin; and evaluate the impacts of any changes in consumptive use due to the change to solar energy production.	3.4 – Water Resources 4.4 – Water Resources
Wetlands/Waters of the U.S.	
The Project area is located in portions of the Fortymile Wash. Modification of the landscape for construction of the facility could result in alteration of the Fortymile Wash natural drainage patterns in the Project area.	4.4 – Water Resources

1.10 Organization of the 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 1-8 describes the organization of the Draft EIS.

Table 1-8 Organization of the Draft 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.
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 Consequences	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 Draft EIS.
Chapter 7 – Glossary	This chapter includes a glossary of technical terms used in the Draft EIS.
Chapter 8 – Index	This chapter includes an index listing of keywords used in the Draft EIS.