BLM

U.S. Department of the Interior
Bureau of Land Management

Record of Decision
November 2010

Amargosa Farm Road Solar Energy Project

APPLICANT

Solar Millennium, LLC
1625 Shattuck Ave, Suite 270,
Berkeley, CA 94709

GENERAL LOCATION

The proposed action is located on public lands managed by the Bureau of Land Management in Nye County, Nevada, five miles south of U.S. Highway 95, five miles west

NATIONAL SYSTEM OF PUBLIC LANDS

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I. Introduction

This Record of Decision (ROD) approves the construction, operation, maintenance, and decommission of the proposed 500-MW Amargosa Farm Road Solar Energy Project on approximately 6,320 acres of BLM-administered lands. The proposed project and alternatives were analyzed in the *Final Environmental Impact Statement for the Solar Millennium, Amargosa Farm Road Solar Power Project, Nye County, NV* noticed in the *Federal Register* on October 15, 2010, (75 FR 63503).

1. Background

Solar Millennium, LLC submitted a right-of-way (ROW) application for the Amargosa Farm Road Solar Energy Project (N-84359) on November 20, 2007 for the authorization of two 250 megawatt (MW) parabolic trough solar thermal power plant facilities to generate 500-MW alternating current power on public lands administered by the Bureau of Land Management (BLM). The project site is located on public lands approximately five miles south of Highway 95, five miles west of State Route 373, north of Amargosa Farm Road, and east of Valley View Boulevard, Amargosa Valley, and Nye County, Nevada.

The BLM has prepared an environmental impact statement (EIS) in compliance with the National Environmental Policy Act (NEPA) of 1969 in response to the ROW application.

Title V of the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. 1761-1771, authorizes the BLM, acting on behalf of the Secretary of the Interior to issue a ROW grant on, over, under, and through the public lands system for generation, transmission, and distribution of electric energy. The BLM's implementation of its statutory direction for ROW authorizations is detailed in 43 CFR Part 2800.

The Authorized Officer administers the ROW authorization and ensures compliance with the terms and conditions of the ROW lease/grant. The term "Authorized Officer" means any employee of the Department of the Interior to whom has been delegated the authority to perform the duties described in 43 CFR Part 2800. In respect to this specific ROW authorization, this authority has been delegated to the BLM's Southern Nevada District Manager.

2. Decisions to be made

The NEPA analysis contained in the Amargosa Farm Road Solar Energy Project EIS considered the following decisions to be made:

- Approve the Proposed Action or Alternative, with or without modifications, and grant a ROW lease/grant to the Applicant;
- Approve the Proposed Action or Alternative, with or without modifications, with additional mitigation measures and grant a ROW lease/grant to the Applicant; or

- Deny the ROW application to construct, operate and decommission a 500-MW solar thermal generation facility and associated infrastructure.

II. Mitigation and Monitoring

1. Required Mitigation

Mitigation measures required for the implementation of the approved action are included as a requirement of the ROW lease/grant (Appendix A of this ROD). The ROW lease/grant stipulations are included in Appendix B to this ROD. These stipulations will be strictly adhered to throughout the duration of all project activities and are essential elements of the project. Application of these stipulations will reduce the impacts to BLM-administered lands and resources as described in the Final EIS and this ROD. One stipulation of the ROW grant/lease requires Solar Millennium to acquire no less than 236 acre-feet/year of existing water rights (referred to as Minimization Water Rights – MWR) from within Basin No. 230 (Amargosa Desert Hydrographic Basin). This requirement is included in Stipulation #51 of the ROW lease/grant stipulations that further clarifies the use and disposition of the MWR as described on pages 15 and 16 of Appendix A in the Final EIS.

2. Monitoring, Mitigation, and Enforcement

The ROW authorization provides the BLM with the legal authority to enforce compliance with all stipulations required in this ROD, including the terms and conditions of the Biological Opinion issued by the U.S. Fish and Wildlife Service. Monitoring will occur throughout the duration of the project for each component of construction, operation, maintenance and decommissioning of the solar facility.

III. Alternatives Including The Proposed Action

Three alternatives were analyzed in the FEIS.

Alternative 1: No Action. The No Action Alternative assumes the ROW application would be denied and the proposed project would not be built.

Alternative 2: Proposed Action (Dry-Cooled). This is the environmentally preferable alternative. Alternative 2 analyzes the construction, operation, maintenance and decommissioning of a solar facility utilizing parabolic trough solar thermal technology and dry-cooled power plants. The project would be constructed in two separate phases on approximately 6,320 acres of public land in the project area and would generate approximately 500-MW of power. Phase 1 of the project is proposed to generate 250-MW and average net output of approximately 232-MW. Phase 2 will generate 250-MW and average net output of approximately 232-MW. Each phase will consist of power blocks, a solar field, a heat transfer fluid and steam generation system, a nitrate salt thermal storage system, conventional water treatment, electrical switchgear, administration, warehouse, and maintenance facilities.

The project facility would disturb approximately 4,350 acres of the 6,320 acre project area and would include solar fields, power blocks, office buildings, maintenance building, parking area, lay down area, storm water detention basin, evaporation ponds, switch yard, and a realignment of Amargosa Farm Road.

Alternative 3: Wet-Cooled Alternative. Alternative 3 analyzes the construction, operation, maintenance and decommissioning of a solar facility utilizing parabolic trough solar thermal technology using wet-cooled technology. The Project would consist of two wet-cooled solar power plants, each with a nameplate capacity of 250-MW and a net output of approximately 242-MW. Each solar plant would be equipped with thermal storage capability and associated linear facilities. Construction and operation of a wet-cooled project would be similar to the dry-cooled plant analyzed in Alternative 2. Plant components and layout are similar under both the wet- and dry-cooled alternatives; the primary differences are the amount of water used for plant operations, the need for cooling towers for heat rejection from the steam cycle for the wet-cooled alternative, and the area needed for the evaporation ponds.

In accordance with 40 CFR §1502.14, and consistent with guidance in BLM's NEPA Handbook, additional alternatives were considered but not carried forward for detailed analysis. The other alternatives included alternative sites and alternative solar technologies as described in the Final EIS.

IV. Management Considerations

The BLM's purpose and need for action is to respond to Solar Millennium's application under Title V of FLPMA for a ROW lease/grant to construct, operate, and decommission a solar generation facility and associated infrastructure in compliance with the FLPMA, BLM ROW regulations (43 CFR Part 2800), and other applicable Federal laws. Instruction Memorandum 2011-003, "Solar Energy Development Policy," dated October 7, 2010, establishes BLM policy to ensure the timely and efficient processing of energy ROWs for solar power on the public lands.

The decision to approve the Solar Millennium, LLC facility takes into account the BLM's purpose and need, statutory, and regulatory requirements, and national policy considerations, as well as Solar Millennium's technical and financial capability to construct the project for which the ROW is requested. The decision was also based on input provided by the public, industry, as well as other Federal and state agencies, including state public utility agencies. Through this review process, all practicable methods to reduce environmental harm have been incorporated into the decision. The decision is consistent with BLM's multiple use mandate under FLPMA.

Secretarial Order 3283 "Enhancing Renewable Energy Development on the Public lands," was signed January 16, 2009. This Secretarial Order established renewable energy as a Departmental policy and committed the U.S. Department of the Interior (DOI) to achieve the goals established in Section 211 of the Energy Policy Act of 2005.

The Energy Policy Act encourages the development of renewable energy resources, including solar energy. Section 211 of the Act encourages the Secretary of the Interior to approve at least 10,000-MW of non-hydropower renewable energy projects on public lands by 2015. Secretarial Order 3285 "Renewable Energy Development by the Department of Interior," signed March 11, 2009, as amended on February 22, 2010, establishes the development of renewable energy as a priority for the DOI and creates a Departmental Task Force on Energy and Climate Change. The Congress, and the President, through the DOI, has established a national policy priority for renewable energy development.

The State of Nevada has also enacted legislation requiring area utility companies to provide energy from renewable energy sources as part of the State's renewable portfolio standard to achieve a goal of 25 percent of its energy production from renewable energy sources by the year 2025.

1. Relationship to BLM and other Agency Plans, Programs, Statutory Requirements and Policies

Endangered Species Act. The U.S. Fish and Wildlife Service (FWS) has provided formal consultation for the desert tortoise on this project, and informal consultation for the 12 species found at Devils Hole and Ash Meadows, pursuant to Section 7 of the Endangered Species Act. The FWS issued a biological opinion for the project on November 1, 2010 and is attached to this ROD as Appendix C. The ROW authorization provides BLM with the legal authority to enforce compliance with the Biological Opinion throughout the duration of the project.

National Historic Preservation Act. The State Historic Preservation Office (SHPO) has reviewed this project under Section 106 of the National Historic Preservation Act. The SHPO reviewed and concurred with the BLM's determinations of site eligibility to the national register of historic places of one eligible property that would be affected by this project. A Historic Properties Treatment Plan describing the mitigation measures that would be employed to resolve any adverse effect to the one NRHP eligible site has been prepared. A Memorandum of Agreement between the BLM and Nevada SHPO has been implemented to ensure the Historic Properties Treatment Plan will mitigate any adverse effect to the single NRHP-eligible site.

Tribal Consultation. There are no tribal lands affected by this project. Consultation occurred with federally-recognized Indian tribes and with the Nevada State Historic Preservation Office in accordance with the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act , the American Indian Religious Freedom Act, and the Sacred Sites Executive Order 13007, as appropriate.

Clean Water Act. U.S. Army Corps of Engineers (ACOE) has provided consultation on this project, pursuant to Section 404 of the Clean Water Act (CWA). The project is expected to receive a Jurisdictional Decision sometime in the first calendar quarter of 2011.

Land Use Plan Conformance. The 500-MW project is in conformance with the Southern Nevada District 1998 Las Vegas Resource Management Plan (RMP). The RMP provides the following objective and management directions for rights-of-way:

Objective

RW-1. Meet public demand and reduce impacts to sensitive resources by providing an orderly system of development for transportation, including legal access to private in holdings, communications, flood control, major utility transmission lines, and related facilities.

Management Direction

RW-1-h. All public lands within the planning area, except as stated in RW-1-c through RW-1-g, are available at the discretion of the agency for right-of-way under the authority of FLPMA.

Separately, a Solar Energy Development Programmatic EIS (EIS) is being prepared by the U.S. Department of Energy and the BLM. This study will assess environmental impacts related to agency-specific programs that would facilitate utility-scale solar energy development in the six western states of Arizona, California, Colorado, New Mexico, Nevada, and Utah. When completed, the Programmatic EIS may result in the amendment of existing RMPs to adopt new Bureau-wide solar energy policies, along with best management practices to reduce the environmental impacts of solar energy development.

V. Agency and Public Involvement

1. Scoping

An initial 30-day scoping period for the Amargosa Farm Road Solar Energy Project was held from July 13, 2009 to August 12, 2009, as announced in the *Federal Register* (74 FR 33458). Public scoping meetings were not conducted within this timeframe. Therefore, a second notice was published in the *Federal Register* (74 FR 47820), reopening the public scoping period to ensure that all interested parties could participate in the process and announcing the BLM's intent to prepare an environmental impact statement (EIS) evaluating the proposed action. The second scoping period was held from September 17, 2009 to October 19, 2009. The notice also invited Federal, state, and local agencies, as well as individuals or organizations that were interested or may be affected by the BLM's proposed decision on this project to participate in the scoping process and, if eligible, as a cooperating agency. In addition to verbal comments and written comments received during these scoping meetings, the BLM received 36 electronic comment letters and/or emails from private citizens, government agencies, non-governmental organizations (NGOs), and business associations by the October 19, 2009 close of scoping. The BLM also used the NEPA commenting process to satisfy the public involvement process for Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470f) as provided for in 36 CFR 800.2(d) (3).

2. Draft EIS Public Comment Period

The BLM held a 45-day public comment period starting with publication of the Notice of Availability (NOA) of the Draft EIS by the BLM on March 19, 2010, in the *Federal Register* (75 FR 13301). The BLM received oral testimony at four public meetings held on April 6, 7, 13 and 14, 2010, in Beatty, Amargosa Valley, Pahrump and Las Vegas, respectively. A total of 37 comment letters were received during the 45-day public comment period. The BLM reviewed each comment and developed responses to all substantive comments based on guidance found in the Council on Environmental Quality (CEQ) regulations (40 CFR 1503.4.) As a result of this review, the BLM modified the Final EIS to clarify and improve the analysis. No changes were made to the proposed action or alternatives as a result of public comment.

3. Final EIS Notice of Availability

The NOA for the Final EIS was published by the Environmental Protection Agency (EPA) on Friday, October 15, 2010 in the *Federal Register* (75 FR 63503 and http://edocket.access.gpo.gov/2010/2010-25859.htm). Interested parties and the public were notified by a press release and by direct mail. Hard copies and CD-ROM versions of the Final EIS were made available at the Southern Nevada District, Pahrump Field Office on October 15, 2010. An electronic copy of the Final EIS is posted on the internet at http://www.blm.gov/nv/st/en/fo/lvfo/blm_programs/energy.html. Issuance of this ROD 30 days after publication of the NOA complies with the CEQ NEPA regulations, at 40 CFR 1506.10.

VI. Decision Rationale

The BLM, after careful consideration of the potential effects of the proposed project, has decided to authorize Solar Millennium, LLC to construct a 500-MW concentrated solar power generation facility as described in the Proposed Action of the Final EIS (Alternative 2), including all associated facilities needed for the development and operation of the facility, mitigation measures, and ROW lease/grant stipulations, as shown in Appendices A and B.

Authorization of the facility responds to the BLM's purpose and need to respond to Solar Millennium's application and to determine whether to approve, approve with modifications, or deny issuance of a ROW lease/grant, taking into consideration the provisions of the Energy Policy Act of 2005 and other applicable Federal laws, regulations, and policies.

The BLM considered several key factors including visual resource management, social economics, and water use, in its decision to authorize the project. The Solar Millennium dry-cooled alternative allows for the least amount of water use among the Solar Millennium proposed alternatives. In addition, a stipulated agreement between BLM, USFWS, NPS, and Solar Millennium provides that Solar Millennium will acquire 236

acre-feet per year as mitigation water, to ensure that any potential effects to groundwater levels in the vicinity of Devil's Hole and the Ash Meadows National Wildlife Refuge are mitigated. The stipulated agreement is contained in Appendix D of this ROD.

VII. Final Agency Action

1. Right-of-Way Authorization

It is my decision to approve a solar energy ROW lease/grant to Solar Millennium, LLC, subject to the terms, conditions, stipulations, Plan of Development, and environmental protection measures developed by the Department of the Interior and reflected in this Record of Decision. It is my further decision to re-align Amargosa Farm Road as described in this Record of Decision and Final EIS. This decision is effective on the date this Record of Decision is signed.

Approved by:

NOV 15 2010

Robert V. Abbey
Director
Bureau of Land Management

Date

2. Secretarial Approval

I hereby approve this decision. My approval of this decision constitutes the final decision of the Department of the Interior and, in accordance with the regulations at 43 CFR 4.410(a)(3), is not subject to appeal under Departmental regulations at 43 CFR Part 4. Any challenge to this decision, including the BLM Authorized Officer's issuance of the right-of-way as approved by this decision, must be brought in Federal district court.

Approved by:

NOV 15 2010

Ken Salazar
Secretary
U.S. Department of the Interior

Date