

SOLAR POWER PROJECT BRIEFING PAPER
FOR THE SECRETARY, DEPARTMENT OF THE INTERIOR

State Office: Nevada State Office

Serial Number: N-86292

Project Name: Crescent Dunes Solar Energy Project

Applicant: Tonopah Solar Energy, LLC

Field Offices and Counties involved: Bureau of Land Management (BLM) Tonopah Field Office and Nye County, Nevada

Acreage proposed for the project: 2,250.27 acres; development within footprint - 1,776 acres.

Project size: 110-MW

Other agencies part of the project and/or decision:

Cooperating Agencies: Department of the Air Force, Nevada Department of Wildlife, U.S. Department of Energy, Esmeralda and Nye Counties, Town of Tonopah

Summary of Proposal

Tonopah Solar Energy, LLC, originally submitted a right-of-way (ROW) application for 7,680 acres of public land for development of the proposed Crescent Dunes Solar Energy Project (N-86292), located 13 miles northwest of Tonopah, in Nye County, Nevada. The ROW was later reduced to 2,250.27 acres of public lands. If approved, development would occur on approximately 1,776 acres within the project area and would include the facility, transmission infrastructure and ancillary structures. Tonopah Solar Energy, LLC proposes a concentrated solar thermal power plant capable of generating 110 megawatts of electricity that is expected to operate approximately 30 years (map attached).

Technology

The Crescent Dunes Solar Energy Project would utilize concentrated solar power technology where a field of heliostats (mirrors) focus sunlight on a central receiver/power tower erected in the center of the solar field. A transfer fluid is heated as it passes through the receiver and circulates through a series of heat exchangers to generate steam used to power a conventional steam turbine to produce electricity. The exhaust steam from the turbine is condensed and returned via water pumps to the heat exchangers where steam is regenerated. The exhaust steam from the turbine will be condensed by both wet and dry cooling to reduce water consumption.

Advantage of this technology:

- Contribute much needed on-peak power to the electrical grid that serves the western United States as demand for power continues to grow. The project is expected to power approximately 75,000 homes during peak electricity periods;
- The thermal storage capability of this technology allows renewable electricity to be produced even when peak demand period extends into the late evening hours;
- Smaller footprint to minimize impacts to biological resources;
- The facility is expected to produce approximately 110 MW of power and contribute 485,000 MWh of cost effective renewable energy annually to the Nevada electricity grid.

Transmission: Energy produced from the facility would interconnect to the electrical grid through a new transmission line extending to the existing Sierra Pacific Power Company (NV Energy) Anaconda Moly Substation, approximately 6 miles north of the site. The applicant has acquired a Power Purchase Agreement with NV Energy for the sale of electricity produced from the facility, which will provide power to approximately 75,000 households in Nevada.

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Summary of Process

Pursuant to the National Environmental Policy Act (NEPA) of 1969, the Environmental Protection Agency (EPA) published a Notice of Availability (NOA) of the Final Environmental Impact Statement (EIS) in the *Federal Register* on November 19, 2010. The BLM published a NOA of the Final EIS in the *Federal Register* on November 26, 2010. The Final EIS considered three action alternatives to the No Action Alternative: the Proposed Action Alternative, Alternative 1, and Alternative 2. Alternative 2 is the BLM's preferred alternative. Important dates for this project are as follows:

- 11/24/2009: Published Notice of Intent to prepare an EIS; initiated public scoping
- 12/17/2009: Public Scoping Meeting – Tonopah Convention Center
- 12/18/2009: Public Scoping Meeting – BLM Southern Nevada District Office
- 09/03/2010: Published Notice of Availability and Draft EIS
- 09/22/2010: Public Meeting on Draft EIS - BLM Southern Nevada District Office
- 09/23/2010: Public Meeting on Draft EIS - Tonopah Convention Center
- 11/19/2010: EPA published Notice of Availability and Final EIS; begin protest period
- 11/26/2010: BLM published Notice of Availability and Final EIS

The BLM received 24 public comment letters during the 60-day public scoping period after release of the Notice of Intent, and 23 public comment letters during the 45-day public review of the Draft EIS. Comment letters were received from Department of the Air Force, EPA, U.S. Fish and Wildlife Service (FWS), Nevada Department of Wildlife (NDOW), Nevada State Clearinghouse, and several members of the public.

Summary of Issues

The BLM has identified the following main concerns regarding this project:

Department of the Air Force (b) (5)
(b) (5)



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Cultural Resources - (b) (5)
(b) (5)

Impacts to Water Resources: (b) (5)

Biological Resources - Special Status Species (Wildlife): (b) (5)

On June 24, 2010, BLM wildlife biologists conducted aerial helicopter surveys for golden eagle nests in a 10-mile radius buffer of the proposed solar project area. One active nest was found 8 miles southeast of Crescent Dunes and one inactive nest was found. Two incidental sightings of golden eagles were made during the survey.

Special Status Species (Plants): (b) (5)

Minerals: (b) (5)

Visual impacts: (b) (5)

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(b) (5) [Redacted]

[Redacted]

[Redacted]

[Redacted]

Rent and Bonding Requirements:

(b) (5) [Redacted]

Summary of Potential Project Benefits

Approval, construction and operation of this project are anticipated to create a number of benefits in the public interest, including, but not limited to:

- Renewable Power Supply: (b) (5) [Redacted]
- [Redacted]
- [Redacted]

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(b) (5)



Summary of Other Agency Actions

- The State Historic Preservation Officer (SHPO) has reviewed this project under Section 106 of the National Historic Preservation Act (NRHPA). The SHPO reviewed and concurred with the BLM's determinations of site eligibility to the national register of historic places of nine eligible properties 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 nine NRHP eligible sites 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 these NRHP-eligible sites.

Maps

The following maps are included in this Briefing Paper package:

1. Project location map