

Thank you for your comment, David Steensen.

The comment tracking number that has been assigned to your comment is SolarS50558.

Comment Date: July 15, 2008 14:46:58PM
Solar Energy Development PEIS
Comment ID: SolarS50558

First Name: David
Middle Initial:
Last Name: Steensen
Organization: National Park Service, Geologic Resources Division
Address: P.O. Box 25287
Address 2:
Address 3:
City: Lakewood
State: CO
Zip: 80228
Country: USA
Email: dave_steensen@nps.gov
Privacy Preference: Don't withhold name or address from public record
Attachment: GRD-WRD scoping comments BLM-DOE Solar PEIS 07-08.doc

Comment Submitted:

Please see attached Microsoft Word document. Thank you. [See Attachment.](#)

United States Department of the Interior

NATIONAL PARK SERVICE
Geologic Resources Division
P.O. Box 25287
Denver, CO 80225

TRANSMITTED VIA ELECTRONIC MAIL - NO HARDCOPY TO FOLLOW

L2360

July 15, 2008

Memorandum

To: Linda Resseguie
Bureau of Land Management

From: David Steensen /s/
Chief, Geologic Resources Division
National Park Service

Subject: Scoping Comments, Solar Energy Development
Programmatic Environmental Impact Statement (FR Doc. E8-12024)

The National Park Service's (NPS) Geologic and Water Resources Divisions support the efforts of the Bureau of Land Management (BLM) and the Department of Energy (DOE) in their development of the Solar Energy Development Programmatic Environmental Impact Statement (PEIS) and offer the following scoping comments. Solar energy on federal land presents an important dimension to meeting our nation's energy needs in an innovative and hopefully sound manner. Title II, Section 211 of the Energy Policy Act of 2005 (P.L. 109-58) requires that the Secretary of the Interior should, within 10 years of enactment of the Act, "... seek to have approved non-hydropower renewable energy projects located on public lands with a generation capacity of at least 10,000 megawatts of electricity." We believe that the utility-scale solar projects contemplated by the PEIS will help meet this mandate.

As the BLM and DOE proceed with their analysis and possible future development of this renewable energy source, it is important that the analysis address the importance of numerous units of the National Park System that are located within the six-state study area, and may even be in the immediate vicinity of potential locations for utility-grade solar development. With this fact in mind, we urge the BLM and DOE to consider possible cross-boundary or even regional impacts associated with siting large scale solar projects. Impacts that should be evaluated include but are not limited to:

- degradation of the visual resource,
- night sky impacts (from operational or security lighting),
- air quality impacts from construction or service vehicle use,
- sound resource impacts if turbines or cooling towers are used,
- destruction of wildlife habitat or interruption of wildlife corridors,
- water availability and water rights issues associated with solar concentrating units.

Along with the PEIS' overall analysis associated with amending land use plans to allow for potential solar development and associated transmission facilities, we urge the BLM and DOE to fully engage adjacent land management agencies, such as the NPS, when analyzing possible environmental impacts associated with pending permits. The NPS is well positioned to provide the lead agencies with resource-specific information and would appreciate the opportunity to contribute to the required analysis.

Of specific concern to the NPS at this time are plans of development and applications for nine solar energy projects in the Amargosa Desert adjacent to Death Valley National Park. The projects all propose to develop utility scale concentrating solar power technologies employing steam-driven turbines to generate electricity. These projects all include wet cooling technologies as part of the plan of development. As proposed, the projects in the Amargosa Desert would require more than 50,000 acre-ft of water on an annual basis. The Nevada State Engineer has determined that the total amount of water that is available on an annual basis in the Amargosa Desert is approximately 24,000 acre-ft, of which 17,000 acre-ft is dedicated to the Ash Meadows National Wildlife Refuge.

Parabolic trough and central tower systems use conventional steam plants to generate electricity, which commonly consume water for cooling. Areas that have been identified on BLM maps as having the highest solar energy potential also tend to be areas of scarce water resources. In arid settings, the increased water demand from concentrating solar energy technologies could strain limited water resources already under development pressure from urbanization, irrigation expansion, commercial interests and mining.

Projects proposing to use water-cooled technology in arid areas with limited water resources will have greater environmental impacts than those projects proposing to use air cooled technologies. Management decisions should be based on the suitability of a particular technology for that area and should make a distinction between water and air cooling technologies. Any large scale solar energy project that requires large amounts of water in the arid southwest is not in the best interest of local, regional, or national constituents and poses additional impacts to the environment and economy.

The PEIS' preferred alternative and resulting management guidelines and policies should encourage the conservation of scarce water resources by clearly stating that air cooled technology is considered a best management practice to be used in the deployment of concentrating solar energy projects. Comparisons between air and wet cooling technologies (or dry and wet heat rejection technologies) were made by the National Renewable Energy Laboratory and are posted on their website. Their estimates indicate that dry cooling technologies use about 8% of the

water required by wet cooling technologies, and can deliver about 91 to 96% of the energy supplied by wet cooling technology.

Specialists from the NPS Geologic and Water Resources Divisions are available to assist the BLM and DOE with both the programmatic and permit-specific portions of the Solar Resources PEIS. If you have any questions or if we can be of any further assistance please contact Kerry Moss at 303-969-2634 or Dan McGlothlin at 970-225-3536.