Thank you for your comment, Julie Falkner.

The comment tracking number that has been assigned to your comment is SolarS50575.

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Solar Energy Development PEIS
Comment ID: SolarS50575

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July 15, 2008

Lisa Jorgensen
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Re: Scoping Comments, Management Concerns and Environmental Issues for the Solar Energy Development Programmatic Environmental Impact Statement for six western states.

Dear Lisa Jorgensen:

The Nature Conservancy respectfully submits these scoping comments for consideration in the Solar Energy Development Programmatic Environmental Impact Statement (PEIS). The Nature Conservancy is an international conservation organization dedicated to preserving the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. The Nature Conservancy has a commitment to working with partners to accomplish this mission in a science-based, collaborative manner. We believe that these comments highlight additional available information and issues that can enhance the PEIS team's ability to make balanced resource management decisions that will protect biodiversity while allowing for the development of solar energy on public lands.

We strongly support the Bureau's decision to assess the environmental effects of solar development, and we believe that short-run implementation impacts as well as long-run conservation efforts should be considered. The comments included in this letter are broad goals covering landscape-scale management, conservation issues, as well as further management guidelines and mitigation measures. To provide you with our best analyses, we suggest that the PEIS contain GIS overlays and more detailed information regarding the specific solar facility locations and any associated infrastructure. Also, the PEIS should evaluate the cumulative impacts of utility-scale solar development in the context of all other current and expanding land-uses and conditions that are also impacting wildlife and their habitats on BLM lands (including, but not limited to, ongoing and planned changes in military use, current and projected residential and commercial growth in adjoining areas, off road vehicle (ORV) use, invasive species, altered fire regime). Because The Nature Conservancy, like the Bureau, is committed to both protecting biodiversity and responsible renewable energy development, we look forward to providing more specific comments and discussing our concerns throughout the development of the PEIS.

1. Management Concern: Avoid or minimize potential impacts to areas of high biological importance from solar energy infrastructure

Working with partners to take a proactive, science-based approach to conservation planning, The Nature Conservancy has completed assessments of the biological resources of most of the United States through a series of ecoregional assessments. Ecoregional assessments identify species and habitats that are important regionally, nationally and globally. With the input of the best available data and knowledge from State Natural Heritage Programs, and a range of private, academic, state and federal scientists and land managers, these assessments identify priority species and plant communities within each region that warrant special attention.

This special attention is warranted because these species, plant communities and systems are documented to be endemic, vulnerable, declining and/or imperiled. These analyses support the importance of the species that the U.S. Fish and Wildlife Service has identified as threatened, endangered, proposed, or candidates for listing, or as Birds of Conservation Concern; that the Bureau of Land Management and USDA Forest Service have listed as Sensitive Species; and species and plant communities that State Natural Heritage programs have identified as having global or state importance.

In addition to identifying species and habitats of concern, our analyses have identified a network or "portfolio" of geographic areas that optimize inclusion and coverage of the largest number of these biologically important species and habitats for conservation. This network or "portfolio", if managed appropriately, should conserve a full range of rare, threatened and endangered species and habitats within each ecoregion. Avoiding or minimizing the impact of solar facility development and the associated infrastructure to these areas would contribute to the conservation of a large array of biologically significant species and habitats. We would welcome the opportunity to work with your planning team to provide a more thorough explanation of how these analyses were conducted and how they might assist in your selection of potential solar facility locations. *Ecoregional data and summary materials are available for the PEIS scoping area at the following web address: http://azconservation.org/projects/ecoregions/.*

2. Additional Environmental Issues:

It is important at this stage to consider a full range of environmental issues and resources that are likely to be affected by future solar development. The location of this future infrastructure can be expected to have a significant impact on the wildlife populations and habitats in the chosen areas. Careful selection of the location of future solar facilities along with the associated infrastructure can reduce the potential impacts by avoiding rare habitats, concentrations of species of biological importance, and important migratory corridors. Because solar energy development may potentially impact a wide range of conservation concerns, we recommend that the PEIS:

1. Evaluate the impacts to water resources, as well as the associated impacts to wildlife and vegetation. This evaluation should include an examination of cumulative desert water availability and use impacts.
2. Examine the ability of habitats and wildlife to shift and adapt with changes in climate. Habitat locations and species needs will change with rising temperatures and different precipitation patterns. Contiguous and intact ecosystems are needed to allow species to adapt to these changes.
3. Account for the potential sizable release of carbon dioxide into the atmosphere from destruction of large areas of biological soil crusts, which fix carbon and hold it in soils, and its impact on climate change.
4. Assess the impacts to air and water quality from blading of large areas, resulting in the destruction of the natural features such abiotic "desert pavement" and biological crusts that stabilize soils.
5. Investigate the impacts associated with operation of ancillary natural gas fired electrical generation at solar sites on cloudy days, at night, and whenever solar generation is non-viable, including release of nitrogen gases into the atmosphere and increased dry nitrogen deposition across the desert. (Increases in nitrogen deposition in arid lands have been shown to encourage the spread of invasive non-native plant species. The spread of fire-prone invasive species will result in increased fire frequency, which has a multitude of negative effects, including reduced air quality.)
6. Consider the discharging cooling water and boiler blowdown, including the potential release of toxic chemicals into the environment if slimicides or other chemicals are used.

3. Recommended Management Guidelines and Mitigation Measures:

While this project will not authorize specific projects, it can and should develop a package of management guidelines that all future specific projects must use to minimize environmental impacts to resources of concern. Because of the scale and scope of solar energy development, the PEIS should be put into context with other planning on public lands including, but not limited to, geothermal development, transmission corridors and local planning activities. Management guidelines should provide a mitigation framework addressing cumulative impacts in these areas:

1. Siting projects using the mitigation hierarchy, i.e. avoiding areas identified as having "very high" or "high" integrity.
    a. The feasibility of restoring any disturbed areas with native plant species and communities given the scale and scope of solar energy infrastructure.
    b. Evaluate the necessity of making off-site mitigation a requirement.
2. Mitigation measures that emphasize on-site avoidance and use off-site mitigation only where other alternatives to protect habitat do not exist.

3. Highlight mitigation measures that provide the potential to fund local habitat protection through royalty payments for solar energy production, similar to oil and gas.
4. Consider the feasibility of lease auctions, similar to oil and gas.
5. Ensuring intact migration corridors are available for migratory species (e.g., large mammals, upland game species, raptors, songbirds, etc.)
6. Preventing, managing and controlling the spread of alien invasive species.
7. Limiting recreational and other secondary uses of access roads
8. Applying the requirements that derive from this PEIS to those applications that are being evaluated concurrently with the development of this PEIS (i.e. geothermal, transmission corridors, etc.).
9. Defining a gross limit—or analyzing an array of such limits—on the total acreage of public lands, or the acreage needed to generate a defined amount of electrical energy, to be made available within the planning horizon for solar generating facilities.

Thank you for the opportunity to comment on this significant project. We hope that this response meets your needs, and look forward to discussing these issues with you throughout the Programmatic EIS process. Please let me know if you have any questions, or if we can provide additional information to assist you in your analysis.

Sincerely,

Juliette A Falkner

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