

Thank you for your comment, Michael Connor.

The comment tracking number that has been assigned to your comment is SolarS50493.

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Solar Energy Development PEIS  
Comment ID: SolarS50493

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Attachment: WWPCaliforniaSolarPEIScomments.pdf

Comment Submitted:

See attached file [See Attachment.](#)



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*Working to protect and restore Western Watersheds*

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July 15, 2008

Solar Energy PEIS Scoping  
Argonne National Laboratory  
9700 S. Cass Avenue—EVS/900  
Argonne, IL 60439

Filed electronically through: <http://solareis.anl.gov>

RE: Department Of Energy, Department Of The Interior Bureau of Land Management. Notice of Intent To Prepare a Programmatic Environmental Impact Statement To Evaluate Solar Energy Development, Develop and Implement Agency-Specific Programs, Conduct Public Scoping Meetings, Amend Relevant Agency Land Use Plans, and Provide Notice of Proposed Planning Criteria

Dear Sir or Madam:

Western Watersheds Project's (WWP) California office is pleased to submit these comments in addition to comments that are being provided by WWP offices in other states. Solar energy development is of particular concern in California where over 600,000 acres of have already been proposed for solar energy development in the California Desert Conservation Area (CDCA) alone.

Western Watersheds Project is a non-profit organization dedicated to protecting and improving wildlife habitat, riparian areas, water quality, and other natural resources and ecological values of watersheds throughout the West. Western Watersheds Project has over 1,600 members nationwide with offices in California, Idaho, Utah, Wyoming and Arizona. Western Watersheds Project, as an organization and on behalf of its members, is concerned with and active in seeking to protect and improve the wildlife, riparian areas, water quality, and other natural resources and ecological values of watersheds throughout the West.

The proposed action in this PEIS is for the Agencies to develop and implement agency-specific programs that will facilitate environmentally responsible, utility-scale solar energy development by establishing environmental policies and mitigation strategies related to solar energy development in six western states (Arizona, California, Colorado, New Mexico, Nevada, and Utah). We fully support adopting an "environmentally responsible" approach to solar energy development and propose the following suggestions to bring this about.

- (a) Establish a balanced approach to locating sites for energy development.

The desert southwest is a fragile, delicate ecosystem. Its public lands have been exploited for multiple resources for hundreds of years. Encroachment from development combined with unsustainable consumptive use of its fragile resources has resulted in many once common Mojave Desert animal and plant species becoming listed under the Endangered Species Act, or at risk of becoming eligible for listing. It is important, and absolutely central to the concept of “environmentally responsible”, that we manage the remaining resources to ensure that listed species recover, and that candidate species, species proposed for listing, and sensitive species are fully conserved and not threatened by public lands management practices. In addition to following the precept of “environmentally responsible”, the BLM is mandated to protect sensitive species [BLM Manual 6840 - Special Status Species Management] and, like all federal agencies, must comply with the Endangered Species Act.

A single solar energy plant may cover thousands of acres from which native plants and animals are permanently excluded. Obviously, multiple solar energy plants will multiply this impact to the desert’s flora and fauna. However, multiple developments bring in additional cumulative impacts that must be carefully and fully analyzed.

Adding the impact of the loss of hundreds of thousands of acres of habitat to solar energy development on top of other consumptive impacts such as livestock grazing and off-road vehicle use to which the habitat of many animals and plants is already subject, is both unsustainable and inappropriate. In order to compensate for the presence of solar power plants, the PEIS must provide clear guidance on the need to balance these impacts. The Federal Land Policy and Management Act (FLPMA) mandates the BLM to prevent unnecessary or undue degradation of the lands it manages. Accordingly, the multiple impacts of all other consumptive uses authorized by any given land use plan will need to be reduced to the point at which there is a net decrease in cumulative impacts to remaining sensitive and listed species habitat to compensate for the habitat loss. Mechanisms to achieve this could include eliminating uses such as livestock grazing from the entire land use planning area.

(b) Locate Solar Developments Outside of the Most Environmentally Sensitive Areas.

To be “environmentally responsible” any solar energy developments must be located outside areas that are environmentally sensitive. Environmentally sensitive sites that must be avoided include:

- Designated and proposed critical habitats;
- Areas of Critical Environmental Concern (ACEC);
- Desert Tortoise Desert Wildlife Management Areas (DWMA);
- Designated species habitat areas such as the CDCA Plan’s Mohave Ground Squirrel Conservation Area;
- CDCA Plan designated Unusual Plant Assemblages (UPA);
- Desert riparian areas, and important watersheds;
- Other designated conservation areas including habitat that has been acquired to mitigate for impacts elsewhere to listed and sensitive species.

It is especially important that cumulative impacts to habitat for rare endemic, sensitive species (such as the Mohave ground squirrel and other state listed species) receive special

consideration since the scale of this PEIS is such that an inappropriate site location policy could further compromise their status and accelerate their listing which will then effect all other multiple uses of these lands.

The developments must also be sited to avoid impacting these environmentally sensitive areas indirectly. The policy should direct the agencies to avoid locations that will increase habitat fragmentation and result in increased isolation of populations. The policy should require full consideration of the impact of any site on habitat connectivity, and use of the sites by migratory birds and mammals.

The developments must also be sited to avoid decreasing the biodiversity of the land use planning area and thus avoid sites that are “hot spots” of species diversity.

(c) Locate Solar Developments Outside of Culturally Sensitive Areas.

The PEIS must fully conform to the letter and spirit of the National Historic Preservation Act. The PEIS should direct that the various BLM resource areas complete their cultural resource inventories prior to modifying land use plans and designating areas within them as suitable for solar plant development. The PEIS should include a full reckoning of the direct and indirect impacts of the program on our irreplaceable cultural resources. The PEIS should fully document the cumulative impacts of all authorized activities for each land use planning area on cultural, historical, archeological and paleontological resources.

(d) Solar Development Projects Should Include Alternative Project Sites.

The clear presentation of alternatives is the “the heart” of the NEPA process.” To be “environmentally responsible” the policy should enshrine the requirement that each solar development proposal should consider multiple project sites in subsequent NEPA analysis, including due consideration of sites outside the jurisdiction of the agency and alternative methods of producing the energy that would be generated. This would help ensure the feasibility of projects by allowing the selection of the environmentally preferred alternative from a full range of alternatives.

(e) Water needs.

The PEIS should include a full review and analysis of the water requirements of these solar power plants and how these water needs will be met. The PEIS should include a full cumulative impacts analysis of all programmatic uses of water in the land use plans it seeks to modify.

(f) Cumulative Impacts of Toxic Treatments and Wastewater.

The PEIS should analyze the cumulative impacts of herbicides and other toxic substances used to control vegetation on the sites on the surrounding habitat and on the water table, and on the watersheds. Likewise, it should analyze the water quality of runoff from the sites following rain and other precipitation events.

The PEIS should fully review and analyze the impacts of wastewater from the plants on the area's wildlife, on the water table and on water quality within the significant watershed. The cumulative impact of any cooling ponds or other waters that offer potential watering sites for ravens and other opportunistic predatory species must be analyzed. The PEIS should be fully consistent with the USFWS "Environmental Assessment to Implement a Desert Tortoise Recovery Plan Task: Reduce Common Raven Predation on the Desert Tortoise" of March 2008.

(g) Climate change.

According to the Federal Register notice, the BLM will consider and analyze relevant climate change impacts in its land use plans and associated NEPA documents, including the anticipated climate change benefits of solar energy.

It has been established that the Mojave Desert acts as a carbon dioxide sink on a par with grasslands and temperate forests (Wohlfahrt et al, 2008<sup>1</sup>). In order to assure a net climate change benefit, the BLM should require that all solar energy projects demonstrate a clear net carbon dioxide reduction benefit, and that the loss of the project site's carbon dioxide sink capability be factored in to this calculation.

The PEIS should require any land use plan modification to include a full review of that plan's carbon footprint so that in the subsequent NEPA analysis for individual solar energy plants alternative methods of reducing the carbon footprint can be considered.

(h) Preferred locations.

Solar energy plants should be preferentially located on previously disturbed sites. Within the CDCA planning area, sites should only be considered in lands designated as class I. In addition, the sites should be located:

- As near to the point of use of the power as possible to minimize environmental impacts and conflicts.
- Near to existing utility corridors in order to minimize the environmental impacts and conflicts of new transmission lines.
- Close to existing water pipelines to minimize impacts to watersheds and sensitive riparian systems.
- Along major roads or railroads if water needs to be imported to the site, so that water can be trucked or freighted in.
- Placed such that new road development is minimized.

(i) Mitigation and Restoration bonds.

Historically, solar energy plants in the Mojave Desert have had a checkered economic record. For example, following the construction of the solar plant at Harper Lake in San

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<sup>1</sup> Wohlfahrt, G., Fenstermaker, L. F. and Arnone, J. A. III. 2008. Large annual net ecosystem CO<sub>2</sub> uptake of a Mojave Desert ecosystem. *Global Change Biology*. 14(7): 1475-1487.

Bernardino County, California the operator filed for bankruptcy. The new operator then balked at paying the costs of the environmental mitigations that had been a condition of the plant's approval in the first place. This then required subsequent legal action by the agencies to resolve the situation. This could be avoided if mitigation bonds are required up front or are structured so that they are tied to stages of project development.

In addition, the PEIS should develop policies recognizing that these are public lands and require the posting of bonds for the subsequent restoration of any solar plant development site once the life of the project is at an end. There are several, obsolete solar power plants in the Mojave Desert. As more interest is focused on solar technology, the technology itself will also change and improve and we can expect rates of obsolescence to increase. The PEIS should develop a policy requiring the posting of bonds to cover environmental restoration as part of the approval process.

(j) Mitigation Requirements.

The PEIS should consider a full range of alternative mitigation strategies to offset the loss of public resources afforded to the developers of these projects. These should range from "no net loss" of public land whereby an equivalent acreage of private lands and inholdings are acquired by the project developers and conserved in perpetuity, to a fully mitigated alternative whereby private lands and in holdings are acquired at a five to one ratio with use of the replacement lands restricted to conservation purposes only.

We thank you for the opportunity to provide scoping comments on this very important process. Please include Western Watersheds Project's California Office to your list of interested public for future mailings. Contact information for the California Office is:

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Sincerely,

A handwritten signature in black ink that reads "Michael J. Connor". The signature is written in a cursive style and is underlined with a single horizontal line.

Michael J. Connor, Ph.D.  
California Director  
Western Watersheds Project