Thank you for your comment, Tami Tripp-Massie.

The comment tracking number that has been assigned to your comment is SolarS50549.

Comment Date: July 15, 2008 13:43:53PM
Solar Energy Development PEIS
Comment ID: SolarS50549

First Name: Tami
Middle Initial:
Last Name: Tripp-Massie
Organization: Amargosa Conservancy
Address: PO Box 63
Address 2:
Address 3:
City: Shoshone
State: CA
Zip: 92384
Country: USA
Email:
Privacy Preference: Don't withhold name or address from public record
Attachment: Solar PEIS-Amargosa Conservancy TTM.pdf

Comment Submitted:

See Attachment.

PO Box 63
Shoshone, CA 92384
(760) 852-4339
(760) 852-4139 fax
www.amargosaconservancy.com

Solar Energy PEIS Scoping
Argonne National Laboratory
9700 S. Cass Avenue—EVS/900
Argonne, IL 60439
http:/solareis.anl.gov

Submitted by hard copy and email

The Amargosa Conservancy Comments on the BLM/DOE Solar Energy Programmatic EIS

The Amargosa Conservancy (AC, or the Conservancy) respectfully submits the following scoping comments on the Programmatic Environmental Impact Statement (PEIS) to evaluate solar energy development by the U.S. Departments of Energy and Interior responding to the May 29, 2008 Notice of Intent (74 FR 104).

The Conservancy is an Eastern California desert non-profit organization dedicated to protecting the land, water and beauty of the Amargosa region. We own and manage land, actively promote education and scientific understanding of desert resources, and believe that major changes affecting the fragile desert environment need to be carefully studied before they are implemented. We are particularly concerned that both the natural and human communities of the region might be threatened by large scale development of alternative energy plants in our region.

The Amargosa Conservancy has been committed to working with public and private partners to accomplish our mission collaboratively. We offer these comments with the intention of assisting the study team in understanding the needs of biodiversity and human communities in our area of the desert southwest, including the longer term and cumulative effects of other recent and incipient large-scale land use changes in the region.

These comments generally flow from our concern that our lands, projects and biodiversity goals may be adversely affected by the proposed large increase in the acreage of public lands devoted to solar energy projects and associated transmission

facilities, especially if these projects are not carefully sited and designed to avoid or minimize negative impacts. The Conservancy favors reducing the generation of greenhouse gases through the increased use of wind, solar and geothermal sources to generate electricity. The desert southwest, and especially large areas of the Mojave Desert, are especially well suited to efficiently produce electricity from sunlight, and the Amargosa Conservancy supports a reasonable and well-planned expansion of solar electrical generation. We also believe, though, that this expansion can be accomplished without causing significant harm to biodiversity, water resources, and other important attributes of the desert. In those few instances where harm is truly unavoidable, properly designed and carefully executed and monitored mitigation programs are necessary.

It is commendable that the agencies have expressly recognized that large-scale solar development can have irreparable impacts on our public lands, including impacts to wildlife, water resources, lands with wilderness character, visual quality, and the land and vegetation itself. This is a good beginning, and, if executed faithfully, will require an extensive and careful review of the most appropriate lands for solar development taking into account the need to protect all of these other values, such as water, desert land use and scenic qualities, air quality, biologically important areas, and the effects of climate change in the push for a smart, clean energy future for the nation.

1. Water

The PEIS should take particular care to analyze the effects of water use by solar generation plants, especially thermal solar generating facilities, which, depending on the technology chosen, can use very significant quantities of water for cooling, in boilers, for washing mirrors, and other uses. Most of the public land in the southwest deserts has little or only intermittent surface water, and very scarce supplies of groundwater. Water that does exist is absolutely critical for the life of species and for desert human communities. Pumping groundwater can dry out crucial springs, riparian habitat and wetlands, turning essential desert habitat into wasteland. Determining the connections between groundwater and surface water is difficult; adverse effects of groundwater pumping are often delayed and experienced at unpredictable distances from pumping locations. Consequently, conservative assumptions must be made about how much water, especially groundwater, can be removed from an aquifer before dire effects will be felt by those plants, animals and humans depending on the water. While it would be desirable to include a detailed description of each groundwater basin affected by proposed solar facilities in this PEIS, at very least an overall assessment of water resources should be included in the PEIS and individual project environmental statements tiered on this PEIS should be required to do a careful analysis of the ecological effects of removing groundwater at each site. Because disparate state laws ordinarily control the use of water, this analysis must include an extensive consideration of how state laws will operate, including how the cross border effects on water resources will be monitored and regulated (the Amargosa Basin and its aquifers extend to both Nevada and California). It is important to recognize that even if a project has acquired state water rights, a thorough environmental analysis may reveal that unacceptable ecological effects may result from the exercise of those rights. In this PEIS, the agencies should analyze the water use of

alternative technologies, describe water use best practices, and set acceptable limitations on overall groundwater withdrawals and use by solar generation facilities. In addition, the PEIS should consider and recommend long term ecological monitoring as a mitigation requirement where groundwater withdrawals are proposed, along with trigger conditions that, if exceeded, will require reduction or cessation of groundwater pumping. Indeed, we believe that groundwater availability may well be the single most important limiting factor in the location and number of plants, especially water-intensive utility scale thermal solar facilities.

2. Desert land Use

Demand for southwest desert public lands by uses other than alternative energy and transmission has recently increased. Military bases have expanded or announced plans to expand. Off road vehicle use has mushroomed. Residential and commercial development, will likely resume its rapid growth in the desert southwest. Grazing is still present and mining activities are increasing. All of these uses have implications for the number and location of energy-related facilities, and for the health and persistence of natural and human communities. The PEIS should capture existing trends, make reasonable predictions about future use, and try to describe linkages between uses that will exacerbate or mitigate problems. In short, the demand for sites for alternative energy on public land cannot be viewed in isolation; the function of the PEIS should be to account for the cumulative effects of that demand and all other uses, especially as those effects may adversely affect desert biodiversity. PEIS should also evaluate whether privately owned lands, especially those already disturbed or located close to urban centers, might be more appropriate locations for solar facilities, and whether distributed alternative energy generation closer to point of use is a more appropriate choice for satisfying a large share of electrical demand.

3. Air and water quality

The construction and operation of solar generation facilities will have effects on air and water quality. The number of large acreages will likely result in the increases of suspended particulate. The operation of ancillary natural gas fired electrical generation at solar sites will result in an increase in nitrogen deposition in the deserts. Discharges of cooling water and boiler blow-down of slimicides or other chemicals used could result in the contamination of scarce groundwater supplies.

4. Avoid and Minimize Adverse Effects to Biologically Important Areas

The Amargosa Conservancy has acquired ecologically important land in the area covered by the PEIS, and, more importantly, the Amargosa Conservancy is compiling science-based analyses of the biological resources of the area to identify species and habitats that are important to this regional area. Gathering the best available data and knowledge from

field work, and land managers, these assessments identify priority species and plant communities within this region that warrant special attention.

This special attention is warranted because the Amargosa River region is documented to contain one of the most important and unique arrays of endemic, rare and sensitive species of any area in North America. Accordingly, the PEIS should undertake specific and detailed analysis of the effects of solar facility siting in this region on the natural communities, habitats, and species in this region, including those located in Ash Meadows, the Amargosa Areas of Critical Environmental Concern, and Death Valley,

In addition to our identifying species and habitats of concern, we commend the analyses performed by The Nature Conservancy, our partner in desert conservation, which 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. If managed appropriately, this network or portfolio should conserve a full range of rare, threatened and endangered species and habitats within this desert region.

Avoiding or minimizing the impact of energy facilities and associated transmission and collateral development to this area, with special attention to avoiding adverse effects on water resources, at a minimum, would help to ensure conservation of a large array of biologically significant species and habitats.

5. Alternatives

The Amargosa Conservancy is gratified that the agencies have chosen to conduct an analysis of the impacts of solar energy development at the programmatic level. As in the case of the other forms of alternative energy, notably wind and geothermal, we believe that the agencies have a settled obligation under the National Environmental Policy Act (NEPA) to assess, on the broadest possible framework, the cumulative impacts of a pending major shift in the use of large tracts of the public lands, scarce groundwater and associated resources.

We are baffled, however, how the agencies can, as announced, proceed to process existing applications and accept additional applications for solar energy development on public lands prior to completing this programmatic environmental analysis. Unless this PEIS is meant to be a meaningless exercise, analyzing alternatives and mitigation options after the horse has left the barn, accepting and processing applications must cease pending completion of this PEIS. We recommend that the agency immediately take the difficult step of announcing a halt to permit processing and also inform all applicants that the PEIS process may well generate significantly different permitting conditions, including rejection of currently reserved sites in favor of auctioned rights.

The scope of the PEIS should include an analysis of alternatives to utility scale solar generation that would either reduce total demand for electricity in relevant markets or satisfy demand through alternative technologies. These alternatives include energy conservation programs, rooftop photovoltaic generation and other distributed energy

options, and an assessment of whether new or evolving technology would be likely to avert the need for some or all of the land and water used by utility scale thermal solar plants.

The proposed option entitled "Facilitated Development Alternative," seems a desirable choice to approach this set of issues. Creating a 20 year (or longer, since the time frame should at least match the putative life span of these generation facilities) reasonably foreseeable development scenario in which prospective solar generation areas and areas off limits to sitting these plants (and transmission lines) are defined seems an appropriate analytical framework, so long as it is comprehensively interpreted and executed. The option styled the "no-action" alternative, is in fact rather an "act without plan" approach, and would lead to habitat fragmentation and a probable grave loss of BLM control over public land use.

The alternatives selection process also points out the need to define a gross limit—or analyze 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 (and other forms of alternative generation and transmission lines). And, as suggested by the discussion of the importance of groundwater above, the safe availability of water may be an appropriate limiting factor in some areas. To date, we do not believe that BLM has acted to limit the total acreage. For example, the California Desert District reportedly accepted over 1 million acres of applications for solar facilities prior to the recent cut off date on a first-come, first served basis.

In summary, to avoid violating the purpose of the PEIS and frustrating the required analysis of alternatives, BLM must, we believe, stop processing solar applications, and reject any additional applications, pending completion of this PEIS--without guaranteeing site location or allocating priority to any applicant. Additionally, we believe that the existing bases upon which sites have been allocated and rights of way are likely to be priced will not maximize values for the use of public land. Rights to sites should be auctioned, with part or all of the proceeds devoted to stewardship of public desert lands.

6. Climate change

We believe that the agencies should assess the cumulative impacts of all of the forms of potential alternative energy development—including transmission facilities-- in the desert southwest using a set of alternative assumptions that includes, among other factors, the adoption of state and federal climate change legislative proposals that will make carbon-based energy significantly more expensive, and alternative energy much more economically advantageous. If, for example, coal based electrical generation were to be saddled with the purchase of emissions credits, the price of thermal solar and photovoltaic generation might well become much more competitive, site demand would intensify and become extremely valuable. It is important for the PEIS to capture scenarios in which the combination of price changes for carbon-based generation rise significantly and technological improvements in solar generation create a very strong demand for land

devoted to solar facilities and associated transmission. Even if acreage or energy production limits are placed on federal land, the strong demand would have the effect of increasing the acreage of private and state lands utilized for generating facilities as well as the demand for additional transmission corridors.

At the same time, the analysis should attempt to capture the ecological effects of climate change. Existing studies predict that habitat locations and species needs will change with rising temperatures and lower rainfall and different precipitation patterns. This should require the PEIS to examine alternatives in which habitat needs, shift and ecosystem land use can be flexibly accommodated.

7. Mitigation

It is important for this PEIS to establish and clearly map areas which should be permanently avoided for ecological and other reasons. We recognize and applaud BLM in setting a substantial number of areas for off limits to energy applications because of their ecological or wilderness values (e.g., national parks, wildlife refuges, wilderness and wilderness study areas, areas of critical environmental concern). Beyond these areas, we believe it is incumbent on the PEIS to examine other factors that may indicate additional desert habitat should be placed off limits. This inquiry should be broad, and should consider such things as increasing existing protected areas (or changing their management) to allow the recovery of listed species (desert tortoise), wildlife migratory corridors (including the need for paths for species changing location in the face of climate change); additional protected habitat for species that are not currently listed, but may need additional protection in the future (e.g., the Mohave ground squirrel, Amargosa Vole); the needs of rare, listed and endemic plant communities; the indirect effects of solar plant areas (road and recreational vehicle use, hunting, fire regimes, invasive species, erosion, and desertification of riparian and aquatic habitats through groundwater withdrawal).

The PEIS should define how site mitigation must be pursued in tiered individual EISs--sensitive areas should first be avoided, if they cannot be avoided, then in-situ mitigation and restoration should be pursued, followed by off site mitigation as a last choice.

Lastly, as noted previously, BLM's current method of allocating site location areas for solar projects could be substantially improved—and resources greatly increased for managing and monitoring site permit and mitigation conditions--by auctioning off solar sites rather than accepting applications on a first come first served basis. BLM's resources and staffing to conduct a major alternative energy area program are currently lacking, and longer term monitoring and enforcement resources are even more questionable. By devoting a portion of proceeds, and collecting auction and mitigation fees that could be used for monitoring and enforcement, BLM could more completely assure that solar facilities, and especially mitigation requirements, are in compliance with permit requirements. Accordingly, the PEIS should evaluate alternatives for allocation of sites, including the extent to which resources derived from site allocation payments and mitigation fees can be used in the desert locations affected by solar facilities.

Thank you for your time in reviewing this document. I will be happy to answer any questions you may have, and look forward to receiving and commenting on the draft PEIS.

Sincerely,

Tami Tripp-Massie
Executive Director
Amargosa Conservancy