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December 23, 2009

(Sent via electronic mail to: [CAPSSolarNextEraFPL@blm.gov](mailto:CAPSSolarNextEraFPL@blm.gov) and [Mmonasmi@energy.state.ca.us](mailto:Mmonasmi@energy.state.ca.us)) Hard Copy to follow via Mail

Allison Shaffer, Project Manager  
Bureau of Land Management, Palm Springs South Coast Field Office  
1201 Bird Center Drive  
Palm Springs, CA 92262

Mike Monasmith, Project Manager  
California Energy Commission  
Siting, Transmission and Environmental Protection Division  
1516 Ninth Street, MS-15  
Sacramento, CA 95814

**Re: Issue scoping comments – proposed NextEra Ford Dry Lake Solar Project  
(Federal Register: November 23, 2009, Volume 74, Number 224, Pages  
61167-61168)**

Dear Ms. Shaffer and Mr. Monasmith:

On behalf of Defenders of Wildlife (Defenders) and our more than 1,000,000 members and supporters in the U.S., 200,000 of which reside in California, I am writing to provide issue scoping comments on the Bureau of Land Management's (BLM) intent to prepare an Environmental Impact Statement for the proposed Genesis Solar Energy Project located near Ford Dry Lake on public lands administered by the BLM.

Defenders is dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

We strongly support renewable energy production and utilization in California, but we do not consider the construction of utility-scale projects, and especially the very large projects currently proposed on public lands in the California Desert to be the primary way to meet our long term renewable energy goals. Some utility-scale solar and wind energy projects on federal lands may be required to enable California and the Department of the Interior to meet renewable energy production and delivery mandates. Such large projects should be sited on degraded or disturbed land, such as abandoned agricultural fields and industrial sites, to the maximum extent possible, before projects are considered on public lands having significant biological resources and values. We expect that the analysis of alternatives in the National Environmental Policy Act (NEPA)

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process will fully address opportunities for locating proposed projects on both federal and privately owned lands consistent with the purpose and need for each project.

Our scoping comments are based on the project description contained in the Application for Certification (Docket Number 09-AFC-8) for the Genesis Solar Energy Project submitted to the California Energy Commission (CEC) by Genesis Solar LLC. For background information purposes, we include a summary of the project description, as follows:

**Project Description:** Genesis Solar LLC submitted a right-of-way application to the Bureau of Land Management (BLM) to develop, operate, and decommission a 250-megawatt (MW) solar generation facility on approximately 1,800 acres of public land located immediately north of Ford Dry Lake in the Chuckwalla Valley, and approximately 25 miles west of the City of Blythe, CA. The northern boundary of the proposed project area is adjacent to the Palen-McCoy Wilderness.

The project would entail construction of two large fields of parabolic solar thermal troughs and associated power generation blocks; administrative, operations and maintenance facilities; evaporation ponds and surface storm water control facilities; and temporary construction lay-down areas. Linear utility facilities are proposed on an additional 90 acres of public land.

The project consists of two independent solar electric generating facilities each with an electrical output of 125 MW. Electrical power would be produced from two conventional steam turbine generators using steam produced at high temperature and pressure from solar steam generators. The project would use a wet cooling tower for power plant cooling. Water for cooling tower makeup, process water makeup, and other industrial uses such as mirror washing would be supplied from two new on-site groundwater wells. Annual water use is estimated at 1,660 acre-feet per year and the daily well pumping rate is estimated to be 1,000 gpm. Project cooling waste water would be piped to lined, on-site evaporation ponds. If approved, project construction would begin in late 2010. During project construction, the applicant estimates water consumption would be 2,440 acre-feet for three years.

Environmental issues that should be addressed in the environmental review process are:

**1. Project Alternatives:** The range of alternatives analysis is the “heart of the environmental impacts statement.” 40 C.F.R. § 1502.14. The National Environmental Policy Act (“NEPA”) requires BLM to “rigorously explore and objectively evaluate” a range of alternatives to proposed federal actions.” See 40 C.F.R. §§ 1052.14(a) and 1508(c).

*Recommendation:* The draft Environmental Impact Statement (DEIS) must include alternative project sites or locations, including those that may not fall under the jurisdiction of the BLM; project extent and electrical power generation that differ from the applicant’s proposal; and the potential for different technology that may lead to lesser potential impacts on sensitive environmental resources.

*Recommendation:* Among the reasonable alternatives that should be analyzed is reduction in project size. We recommend the project exclude essentially all dune habitat and create a buffer

zone of approximately 0.5 mile. This would protect the Mojave Fringe-toed Lizard, a BLM Sensitive Species, and its habitat within the proposed project area. This area is located in the eastern portion of the project area.

The issue of the applicant signing power purchase agreements with public utility companies for a certain amount of electrical power prior to the BLM and CEC arriving at a decision should be explored. This practice appears to result in inflexibility on the part of the applicant with regard to what constitutes a reasonable range of alternatives, and may unjustly influence the permitting agencies into thinking that the only alternatives are the proposed project or no project.

*Recommendation:* The alternatives should include using air to condense exhaust steam from the steam turbine generators. The proposed project would utilize water pumped from the Chuckwalla Valley Groundwater Basin to cool the steam condensers. The anticipated water consumption would be 1,000 gpm or 1,660 acre-feet per year for the 30 year life of the project, plus 2,440 acre-feet during project construction.

We are aware of four proposed solar energy projects in the California Desert that would use air cooled steam condensers, and the Department of Energy conducted a study at Daggett, California in the 1990s that demonstrated air cooling was technically and economically feasible because it resulted in relatively minor impact to overall steam turbine efficiency. Turbine efficiency loss using air cooled steam condensers is relatively small, on the average of five percent over a one-year cycle. The applicant stated in their AFC that their intent in proposing the use of groundwater for a wet cooled power plant is to "... maximize power generation, optimize efficiency, and reduce the delivered cost of electricity."

We are concerned that the significant amount of groundwater proposed to be pumped and fully consumed for power plant cooling, as well as on-site mirror washing, dust control and for human consumption, may cause adverse impacts to McCoy Spring, reduce the groundwater flow from Chuckwalla Valley to the Palo Verde Valley, impact shallow groundwater associated with the Palen and Ford Dry Lake Playas, and microphyll woodlands in numerous naturally occurring drainages.

*Recommendation:* The DEIS should include a robust groundwater impact analysis for the proposed project and each of the reasonable alternatives. A more thorough study of the connectivity between deep, middle, and shallow groundwater aquifers is strongly recommended. As proposed, groundwater would be pumped from the Bouse Formation, and the applicant claims that there would be little or no impact to groundwater or groundwater-related resources because the shallower aquifers are isolated from the area that would be subject to pumping. This conclusion should be independently tested. Salt and brackish water in the desert environment can be associated with wetland habitats which are biologically rich and often support endemic species and migratory birds. In the California Desert, BLM has classified all salt and brackish water wetlands as Unusual Plant Assemblages that warrant special protection.

**2. Biological Resources:** An analysis of effects to biological resources due to the proposed project is contained in the Application for Certification (AFC) for the Genesis Solar Power Project submitted by the project proponent. The report provides adequate detail of the species of

plants, animals and their habitats that would be affected by the project, but Defenders does not support their conclusions that the impacts would be rendered less than significant due to implementation of various mitigation and avoidance measures suggested by the applicant.

The applicant has provided no avoidance measures to eliminate or reduce loss of habitat that supports Special Status Species, specially habitat for the Burrowing Owl and Mojave Fringe-toed Lizard. Granted, direct mortality for some species of concern will be avoided through capture and release or other measures carried out under wildlife agency permit, but permanent loss of the habitat currently supporting a biological community is the most significant impact. Capture and release of certain species that would be affected by the proposed project does not constitute avoidance or mitigation; rather, we consider these suggested actions as salvage operations.

*Recommendation:* The BLM has a duty under the Endangered Species Act (“ESA”) to consult with the U.S. Fish and Wildlife Service to ensure that the impacts from solar development will not “jeopardize the continued existence of threatened or endangered species . . . or . . . destroy or adversely modify their designated critical habitat.” 16 U.S.C. § 1536(a)(2).

Wildlife Habitat Management Areas: The proposed project falls entirely within the Multi-species Wildlife Habitat Management Area (WHMA) designation for the eastern Colorado Desert region of the California Desert Conservation Area (CDCA). This management area was established to provide long-term conservation of various species of special concern such as the Mojave Fringe-toed Lizard, Burrowing Owl, Desert Kit Fox, and many species of plants. For documentation please see the Proposed Plan Amendments for the Northern and Eastern Colorado Desert Planning Area (NECO Amendment), Map 2-21, and Plan page 2-2.

Permanent loss of approximately 2,000 acres of intact wildlife habitat and its associated species are significant and the proposed mitigation and avoidance measures contained in the applicant’s AFC will not reduce the habitat loss. Site preparation for the project will entail the complete removal of vegetation and installation of perimeter barrier fencing to preclude wildlife movement through the facility.

*Recommendation:* The impacts from the proposed and other similar projects within the Chuckwalla Valley on designated WHMAs and their associated species need to be carefully analyzed. The long-term viability and management effectiveness of the WHMAs needs to be carefully analyzed.

*Recommendation:* The effect of the project on species movements within the area should be thoroughly examined, especially those of the Desert Tortoise, Mojave Fringe-toed Lizard, Mule Deer and Desert Bighorn. The proposed project is very near to a WHMA established to maintain habitat connectivity for the Desert Tortoise between the various Desert Wildlife Management Areas (i.e., Chuckwalla, Joshua Tree, and Chemehuevi). This WHMA is shown on Map 2-21 of the Proposed Plan Amendments for the Northern and Eastern Colorado Desert Planning Area, and is labeled “Proposed WHMA (DWMA continuity). Such continuity can only be maintained through long-term, effective habitat protection. Based on the relatively remote location of the proposed project, and its location across the middle of the outflow from Palen Wash, the analysis of impacts to species movements through the region should be carefully analyzed.

*Recommendation:* The impact of the project on deposition and maintenance of sand in dune and playa areas needs to be addressed especially since this medium supports significant numbers of Mojave Fringe-toed Lizards. Proposed drainage modification for control of precipitation runoff could have significant, long-term adverse impacts on the maintenance of dune habitats in the project area. The CDCA Plan, as amended, calls for mitigation for habitat lost due to multiple use projects within the affected area.

BLM Policy Manual: Special Status Species Management (6840): Analysis of the impacts of the project on Special Status Species, and the subsequent development of avoidance, minimization and mitigation measures for such impacts, must conform with policy contained in the 6840 Manual as follows: “On BLM-administered lands, the BLM shall manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat...”<sup>1</sup>

The required mitigation for loss of dune and desert ephemeral wash habitats as per the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) Amendment to the CDCA Plan should be identified. It appears that loss of these habitats requires a project proponent to compensate at a ratio of 3 acres for every acre lost. The DEIS should also evaluate opportunities for such habitat compensation within the planning area and determine if any required habitat loss compensation opportunity exists.

**3. Water:** The proposed project would consume a very large amount of naturally occurring groundwater over the anticipated 30 year life of the project. The amount of water required for operations is 1,660 acre-feet per year. The proposed project would also disrupt the natural flow of surface water from Palen Wash onto Ford Dry Lake due to surface water control and diversion structures.

*Recommendation:* Effects of water table drawdown on shallow aquifers including the Ford Dry Lake playa, Palen Dry Lake playa, and McCoy Spring need to be carefully analyzed. The effect of diversion of water from ephemeral streams on sand transport and deposition, vegetation communities and dependent wildlife should be analyzed.

**4. Cumulative Impacts:** Cumulative impact is defined as the impact on the environment which results from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7.

*Recommendation:* Cumulative impacts to species and their habitats in the Chuckwalla Valley region need to be analyzed. Trends in species populations and extent of habitats that BLM considers at-risk will be an important aspect of this analysis.

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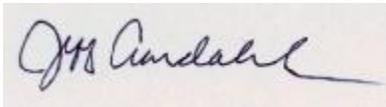
<sup>1</sup> Bureau of Land Management. 2008. Manual 6840: Special Status Species Management. Washington, D.C. 24 pp.

**5. Global Climate Change:** Average temperatures in the Southwestern U.S. are projected to rise from four to as much as 10 F° over the baseline years (1960 – 1979) by the year 2090.<sup>2</sup> An increase of between seven and 10 F° associated with the higher greenhouse gas emission scenario is more likely than the lower range of temperature increase associated with the lower emissions.

*Recommendation:* The DEIS must address the projected effects of global climate change on plants, animals and their habitats throughout the Chuckwalla Valley as part of the future environmental baseline. Planning for species adaptation will be essential components of the analysis and decision. Such changes include, for example, movement of certain species to higher elevations as temperatures increase, plant communities undergo species composition shifts, and precipitation patterns change. The future baseline condition should account for the existing impacts to species adaptation opportunities such as habitat lost and fragmented by highways, canals, fences and general development.

Thank you for considering our comments. If you have any questions, please contact me at (916) 313-5800 x110 or via email at [jaardahl@defenders.org](mailto:jaardahl@defenders.org).

Sincerely,

A handwritten signature in black ink on a light-colored background. The signature is cursive and appears to read "Jeff Aardahl".

Jeff Aardahl  
California Representative

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<sup>2</sup> U.S. Global Climate Change Research Program. 2009. Global Climate Change Impacts in the United States; Southwest Region.