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December 23, 2009

Sent Via Email to: CAPSSolarPalen@blm.gov; CAPSSolarBlythe@blm.gov; and asolomon@energy.state.ca.us (Hard Copy to follow via Mail)

Holly L. Roberts
Bureau of Land Management
Palm Springs-South Coast Field Office
1201 Bird Center Drive, Palm Springs, California 92262

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

Re: Scoping comments for proposed Palen and Blythe Solar Power Projects (Federal Register Notices: November 23, 2009. Volume 74, Number 224, Pages 61169-61171

Dear Ms. Roberts and Mr. Solomon:

Thank you for the opportunity to comment on the Bureau of Land Management's (BLM) intent to prepare an Environmental Impact Statement for each of two projects, the Palen Solar Power Project and the Blythe Solar Power Project. These comments are submitted on behalf of Defenders of Wildlife (Defenders), a non-profit public interest conservation organization with more than 1,000,000 members and supporters nationally, 200,000 of which reside in California,

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.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near term impact of large scale solar development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. These projects should be placed in the least harmful locations, near existing transmission lines and already disturbed lands.

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We expect that the analysis of alternatives in the National Environmental Policy Act ("NEPA") 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.

We offer the following issue scoping comments for each project.

Palen Solar Power Project

The proposed Palen Solar Power Project would generate 484 megawatts (MW) solar generation facility using solar thermal technology on approximately 4,000 acres of public land. It would consist of two solar thermal power plants, each having its own parabolic mirror fields and conventional steam turbine generator. The two power plants would share administrative buildings, parking areas, maintenance buildings, switch yards, bioremediation areas, wastewater treatment facilities, access and maintenance roads, and perimeter fencing. The project would also include a natural gas pipeline, communication lines, and a 230 kV transmission line. During construction, the project would require approximately 1,100 acre-feet of water for dust control and soil compaction. During operation, the project would require approximately 300 acre-feet of water per year for the 30-year life of the project which would be pumped from the local groundwater basin. If approved, construction of the project would commence in late 2010.

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 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: Reduce project size by excluding the proposed eastern half. This would exclude a large majority of the sensitive sand dune habitat that is currently occupied by a considerable number of Mojave Fringe-toed Lizards, a BLM Sensitive Species. Exclusion of the eastern half of the project would result in a significant reduction in the habitat loss for the Mojave Fringe-toed Lizard, Burrowing Owl, and Desert Kit Fox and maintain the larger of two ephemeral wash systems that support desert wash woodland habitat. It would also reduce the impact to the Desert Tortoise Desert Wildlife Management Area (DWMA) linkage habitat by approximately 50 percent.

Recommendation: The required mitigation for loss of playa, dune and desert woodland wash habitats as required by the NECO Amendment to the California Desert Conservation Area (CDCA) Plan should be identified in each alternative. It appears that loss of these habitats requires a project proponent to compensate at a ratio of 3:1 for every acre lost. The DEIS alternatives should also evaluate opportunities for such habitat compensation within the planning area and determine if any required habitat loss compensation opportunity exists.

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.

2. <u>Biological Resources</u>: An analysis of effects to biological resources due to the proposed project is contained in the Application for Certification (AFC) for the Palen Solar Power Project submitted by the project proponent. The report provides adequate detail of the species of plants, wildlife and habitat and public lands that would be affected by the project. Defenders does not support the AFC conclusion that the impacts would be rendered less than significant due to implementation of various mitigation and avoidance measures suggested by the applicant.

The permanent loss of 4,000 acres of intact wildlife habitat and its associated species are significant; 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 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).

<u>Wildlife Habitat Management Areas</u>: 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.[1]

Recommendation: The impact of large utility-scale solar projects proposed in the Chuckwalla Valley on designated WHMAs and their associated species needs to be carefully analyzed. 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 falls within 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).[2] Such continuity can only be maintained through long-term, effective habitat protection. The proposed project falls within the center of this designated WHMA and appears to be fully inconsistent with the goals and objectives of the CDCA Plan.

[1] *See* the Proposed Plan Amendments for the Northern and Eastern Colorado Desert Planning Area (NECO Amendment), Map 2-21, and Plan page 2-2

[2] 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)."

Recommendation: The effects of the proposed project and alternatives on this wildlife movement WHMA need to be carefully analyzed.

Sand Dune and Playa Habitats: The Sand Dune and Playa habitats support significant numbers of Mojave Fringe-toed lizards. The CDCA Plan, as amended, calls for mitigation for habitat lost due to multiple use projects within the affected area. According to the applicant's AFC, the proposed project area contains 1,735 acres of suitable habitat that is occupied by the Mojave Fringe-toed Lizard; this is approximately 45 percent of the entire area. In addition, these habitats are threatened by proposed drainage modification for control of precipitation runoff and wind screens, which could have significant, long-term adverse impacts.

Recommendation: The impact of the project on deposition and maintenance of sand dune and playa areas needs to be addressed.

BLM Policy Manual: Special Status Species Management (6840): The BLM manual establishes objectives and policies for the management of Special Status Species (SSS) on BLM lands. The objectives of the 6840 policy are twofold: 1) To conserve and/or recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for these species; and 2) To initiate proactive conservation measures that reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing these species under the ESA.

Recommendation: The DEIS must analyze the impacts of the proposed project on SSS, and the subsequent development of avoidance, minimization and mitigation measures for such impacts must conform with policy contained in the 6840 Manual.

The applicant has provided no avoidance measures to eliminate or reduce loss of habitat that supports Special Status Species, including the Desert Tortise, Burrowing Owl, and Mojave Fringe-towed 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: We strongly urge the BLM, through the NEPA process, to identify measures to avoid and mitigate impacts to Special Status Species occurring on the proposed project site. Such measures should include alternate locations and a smaller project footprint.

3. Water: Water sustainability must be one of the guiding principles for siting solar energy development. Solar power is not environmentally responsible if it is reliant on unsustainable water use.

Recommendation: Each alternative must consider groundwater and surface water impacts in the Chuckwalla Valley over the life of the project. An analysis should include: impacts to down-gradient groundwater and surface waters or wetlands and the effect of diversion of water from ephemeral streams on sand transport and deposition, vegetation communities and dependent wildlife.

4. <u>Cumulative Impacts</u>: 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.

5. <u>Global Climate Change</u>: Average temperatures in the Southwestern U.S. are projected to rise from four to as much as 10 Fº over the baseline years (1960 – 1979) by the year 2090.[3] An increase of between seven and 10 Fº 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.

[3] U.S. Global Climate Change Research Program. 2009. Global Climate Change Impacts in the United States; Southwest Region.

Blythe Solar Power Project

The proposed Blythe Solar Power Project would consist of four parabolic trough solar thermal power plants similar to the Palen project. The four power plants would generate approximately 968 MW of electricity. All four plants would share administrative buildings, parking areas, maintenance buildings, switch yards, bioremediation areas, wastewater treatment facilities, access and maintenance roads, and perimeter fencing. The project would also include a natural gas pipeline, communication lines, and a 500 kV transmission line. The total expected surface impact of the project would be approximately 7,000 acres.

During construction, the project would require approximately 3,100 acre feet of water for dust control and soil compaction. During operation, the project would require approximately 600 acre-feet of water per year for the 30-year life of the project which would be pumped from the local groundwater basin. If approved, construction of the project would commence in late 2010.

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 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 use of different technology that may lead to lesser potential impacts on sensitive environmental resources.

The applicant submitted an analysis of alternatives in their AFC for the Blythe Solar Power Project. They used several criteria to evaluate alternative locations which they selected. The veracity of their alternatives analysis cannot be determined based on the information submitted. Therefore, it is imperative for BLM to independently conduct a thorough alternatives analysis consistent with NEPA.

According to information provided by the applicant in their AFC, one alternative project site located east of Lancaster, CA was rejected because it was "heavily subdivided private property." It is unclear how many parcels or individual land owners were involved, and there is no indication of the level of effort made by the applicant to secure control of the lands in the area. The applicant indicates that any site with more than three land owners was not considered so as to avoid "lengthy and/or unsuccessful negotiations." In contrast, the RETI analysis of the California Energy Commission considered that private lands within the California Desert could have up to 20 separate owners for a land area of 1,280 acres and remain potentially viable for a renewable energy project.

Other than the reported poor site control conditions, the other criteria used to rate locations appear quite favorable for at least the site east of Lancaster. The applicant also indicates their site selection criteria include the requirement that the land must be available "at a reasonable cost." The

subjective and self-serving nature of the alternatives analysis submitted by the applicant should be ignored by the BLM and an independent analysis of alternatives performed.

Recommendation: Reduce the project size by excluding the proposed western half of the project area. This would exclude a majority of the sensitive habitats occupied by several species of concern including the Las Animas Colubrine, Desert Tortoise, Burrowing Owl, American Badger, Desert Kit Fox and Desert Bighorn Sheep. Of these, the Burrowing Owl and Desert Bighorn Sheep are BLM Sensitive Species.

The applicant implies that their preferred location for the project is not highly pristine or biologically sensitive because it is not within designated wilderness, an Area of Critical Environmental Concern (ACEC) or Desert Wildlife Management Area (DWMA). There are many areas within the CDCA that are outside of these administrative designations and yet harbor significant biological resources. The proposed project site is one such area, as evidenced by the abundance of sensitive species found within the proposed disturbance area.

The applicant should include alternatives on a variety of different sites within the California desert, both on private and federal lands that could accommodate their project as a 250 MW facility or multiples thereof. The applicant has arbitrarily determined that an area of at least 7,000 acres is needed because their goal is to generate 1000 MW using four separate power plants. It appears from their analysis that the minimum viable size for a power plant is 250 MW, which is probably based on available steam turbine generator units.

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.

2. <u>Biological Resources</u>: An analysis of effects to biological resources due to the proposed project is contained in the Application for Certification (AFC) for the Blythe Solar Power Project submitted by the project proponent. The report provides adequate detail of the species of plants, wildlife and habitats, and public lands that would be affected by the project. Defenders does not support the conclusion that the impacts would be rendered less than significant due to implementation of various mitigation and avoidance measures suggested by the applicant. None of these suggested measures would lessen the impact of the permanent loss of habitat and the biological community.

The permanent loss of 7,000 acres of intact wildlife habitat and its associated species is significant and 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.

The required mitigation for loss of dry desert wash woodlands and ephemeral wash habitats as required by the 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.

The AFC contains a substantial amount of documentation on the occurrence and abundance of various species of concern occupying or using the project area. The proposed project will result in significant losses of various species and 7000 acres of essentially pristine habitat and

The 7,000 acre site for the proposed project supports the following habitats and species of concern:

Desert Dry Wash Woodlands
Ephemeral Dry Washes
Las Animas Colubrine
Desert Tortoise (Threatened – Federal and California)
Burrowing Owl (BLM Sensitive)
American Badger
Desert Kit Fox
Desert Bighorn Sheep (BLM Sensitive)

Recommendation: The BLM must provide additional information beyond that provided in the AFC. Additional information is necessary to more accurately define and characterize the Desert Tortoise and its habitat within the project and buffer areas. The amount of sign and burrows recorded were considerably higher than the few individuals that were observed. It appears the western half of the project area potentially has a much larger, viable Desert Tortoise Population than reported and numerous caliche cavities in the ephemeral stream channels may have been occupied by additional undetected individuals.

Recommendation: The BLM must provide additional information on the Desert Bighorn Sheep, Burrowing Owl, and American Badger use of the project site for both foraging and movement pathways. The AFC indicates there were 1,019 potentially suitable burrows for the Burrowing Owl in the project disturbance area, but that only two individuals were observed during the 2009 surveys. Thus, it appears the importance of the site for this species needs to be reevaluated. There were a significant number of American Badger dens (11) reported in the western half of the project area and over 80 other animal burrows showed signs of excavation by badgers seeking prey.

BLM Policy Manual: Special Status Species Management (6840): The BLM manual establishes objectives and policies for the management of Special Status Species (SSS) on BLM lands. The objectives of the 6840 policy are twofold: 1) To conserve and/or recover ESA-listed species and the ecosystems on which they depend so that ESA protections are no longer needed for these species; and 2) To initiate proactive conservation measures that reduce or eliminate threats to BLM sensitive species to minimize the likelihood of and need for listing these species under the ESA.

Recommendation: The DEIS must analyze the impacts of the proposed project on SSS, and the subsequent development of avoidance, minimization and mitigation measures for such impacts, must conform with policy contained in the 6840 Manual

The applicant has provided no avoidance measures to eliminate or reduce loss of habitat that supports Special Status Species. 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 to biological resources.

Recommendation: We strongly urge the BLM, through the NEPA process, to identify strong measures to avoid and mitigate impacts to SSS occurring primarily on the western half of the project area. Such measures should include alternate locations and a smaller project footprint.

3. Water: Water sustainability must be one of the guiding principles for siting solar energy development. Solar power is not environmentally responsible if it is reliant on unsustainable water use.

Recommendation: Groundwater and surface water impacts in the McCoy Wash region over the life of the project need to be analyzed and reported. The affected groundwater basin should be identified and potential for subsidence over the life of the project needs to be evaluated. Impacts to down-gradient groundwater and surface waters or wetlands should be analyzed. This analysis should be performed for each of the alternatives. The effect of diversion of water from ephemeral streams on sand transport and deposition, vegetation communities and dependent wildlife needs to be analyzed and disclosed.

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 region that includes the McCoy Mountains to the McCoy Wash 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.

5. Global Climate Change: Average temperatures in the Southwestern U.S. are projected to rise from four to as much as 10 Fº over the baseline years (1960 – 1979) by the year 2090.[4] An increase of between seven and 10 Fº associated with the higher greenhouse gas emission scenario is more likely than the lower range of temperature increase associated with the lower emissions.

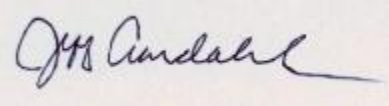
Recommendation: The DEIS must address the projected effects of global climate change on plants, species and their habitats throughout the McCoy Wash region as part of the future environmental baseline. Planning for species adaptation will be essential components of the analysis and decision. Such changes 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

[4] U.S. Global Climate Change Research Program. 2009. Global Climate Change Impacts in the United States; Southwest Region.

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.

Sincerely,



Jeff Aardahl
California Representative