



July 15, 2008

Solar Energy PEIS Scoping  
Argonne National Laboratory  
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Argonne, IL 60439

**U.S. Bureau of Land Management (BLM) and Department of Energy (DOE)  
Proposed Solar Energy Development Programmatic Environmental Impact  
Statement Public Scoping Comments**

The California Department of Fish and Game (CDFG) reviewed the Notice of Intent (NOI) for the Programmatic Environmental Impact Statement (PEIS) to Evaluate Solar Energy Development (Federal Register / Vol. 73, No. 104 / Thursday, May 29, 2008). CDFG understands that the purpose of the Solar PEIS is to evaluate the development and implementation of agency-specific programs that would establish environmental policies and mitigation strategies (e.g., best management practices and siting criteria) related to solar energy development in six western states including Arizona, California, Colorado, New Mexico, Nevada, and Utah.

In the State of California, the deployment of new renewable energy technologies across the state and in particular, utility-scale solar projects in the Mojave and Colorado Desert areas, will require utilizing new areas of biologically sensitive land, and California is committed to conserving its biodiversity – species, natural communities, and associated ecological processes – at the ecosystem scale.

The Governor's Energy Action Plan II establishes a State policy goal of producing 33% of California's electrical need with renewable energy sources by 2020. A substantial increase in the development of Renewable Portfolio Standard (RPS) energy projects is needed to meet this policy goal. RPS energy projects, including wind, solar, and wave generation projects also contribute to the State's Climate Change goals of reducing greenhouse gases to 1990 levels by 2020 and 80 percent below 1990 emissions levels by 2050, making the success and expansion of renewable energy generation a key priority for California's economic and environmental future.

To help California achieve these goals, the Department of Fish and Game desires to work cooperatively with the BLM and DOE, industry and public stakeholders on the development of the Solar PEIS. California is also working to establish environmental policies, best management practices, siting criteria and mitigation strategies that encourage the development of utility scale solar projects while exercising the best possible stewardship of California's wildlife and habitat resources. Close coordination with CDFG and other California agencies will ensure that the Solar Energy PEIS and resulting agency programs are effective and congruent on both the federal and State level.

To achieve this goal, CDFG has the following specific comments related to the Scope of the BLM-DOE Solar PEIS:

CDFG Regulatory Authority:

- Solar development projects in the California Desert Conservation Area (CDCA) have the potential to significantly affect state listed species (CESA, Fish and Game Code, Section 2080 et. seq.) and waters of the State subject to Fish and Game Code section 1600 et seq.
- CDFG has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource. These jurisdictional areas include alluvial fans, desert washes and desert streams. Rerouting streams and placing temporary and permanent stream crossings in streams would normally be conducted pursuant to a Lake and Streambed Alteration Agreement, and the Project proponents are required to submit a Stream Alteration Notification to the Department.
- Potentially significant environmental effects to stream resources include road construction, grading of project sites, and diversion of streams and washes for flood protection, and these should be analyzed in the PEIS. In addition, a discussion of potential adverse impacts from any increased runoff, sedimentation, soil erosion, and/or pollutants on streams and watercourses on or near the project site, with mitigation measures proposed to alleviate such impacts must be included.
- CDFG also has regulatory authority with regard to activities that may “take” a species listed pursuant to CESA and “take” of a listed species incidental to an otherwise lawful activity can only be authorized by a permit from CDFG.
- Potential impacts to listed species include incidental “take” of listed species, and direct impacts to their habitat. In addition to direct project impacts to species and habitats, the PEIS should evaluate the indirect impacts from projects, including increases in predatory species on sensitive wildlife, increased vehicular traffic, and habitat fragmentation.
- Streambed alteration agreements and/or CESA permits may be required if a private entity is undertaking a solar development in California, even though it may be on BLM land. The Draft PEIS should inform project developers of the need to avoid or mitigate impacts to listed species and their habitats, alluvial fans, desert washes, and desert streams. The desire to avoid or limit impacts to jurisdictional areas should be included as important siting criteria for the locations of solar development projects in the CDCA.

California Environmental Quality Act:

- CDFG is a Trustee Agency with the responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is responsible for providing, as available, biological expertise to develop, review and comment on environmental documents and impacts arising from project activities, as those terms are used under NEPA and CEQA.
- CDFG is also a CEQA Responsible Agency when a subsequent permit or other type of discretionary approval is required from the Department, such as an Incidental Take Permit, pursuant to the California Endangered Species Act (CESA), or a Streambed Alteration Agreement issued under Fish and Game Code Section 1600 et seq. Both actions by the Department would be considered "projects" (CEQA Guidelines Section 15378) and would be subject to CEQA.
- It would expedite subsequent California – specific permits and approvals for utility-scale solar projects if the Solar PEIS were to incorporate as many CEQA specific elements as practical, so that CDFG and other California agencies can use the NEPA PEIS to comply with portions of CEQA, as specified in the California Public Resources Code and the CEQA Guidelines, Section 15221.
- In order for CDFG to issue permits or agreements subject to its jurisdiction, the project CEQA or CEQA equivalent certified document must include an analysis of the impacts of the proposed project on the species or streambed, an analysis of the biological resources present on the site, copies of biological studies conducted on the site, biological survey methodology, and a discussion of any avoidance, or mitigation measures or project alternatives, which will reduce the impacts of the proposed development to a level less than significant.
- A cumulative effects analysis should be developed in the PEIS. The scope of the cumulative impact analysis should not be limited to evaluating potential environmental effects of solar projects, or to project impacts to BLM lands only. The analysis should include general and specific and residential and commercial development plans and associated infrastructure, and military base expansions or base realignment and/or closure. Impacts should be estimated for past, present, and anticipated future projects, and should be analyzed relative to their overall effect on species populations, plant communities, and wildlife habitats. The cumulative impact analysis should focus on potential effects to the sustainability of populations of desert species, habitats, and associated ecological processes over the entire PEIS project area. Potential effects of climate change on species and habitats should also be evaluated.

Other Potential Impacts within the Scope of the Solar PEIS:

- The PEIS should clearly identify CESA species, California species of special concern, species of management interest, and habitats to be analyzed for the California portion of the PEIS effort.
- The PEIS should analyze and evaluate all existing final or draft habitat conservation plans and/or Natural Community Conservation Plans, as an information source to inform the PEIS effort and to ensure that the conservation strategies and reserve designs are not compromised by the PEIS outcome.
- The PEIS should evaluate the potential effects of utility-scale solar development projects and the required, associated transmission infrastructure on state listed species, California species of special concern, and species of management interest such as deer and Desert Bighorn sheep. These species should be taken into account when developing siting criteria for solar energy development or determining areas where mitigation measures for fish and wildlife are needed. Both project siting criteria and mitigation strategies should be devised to minimize the environmental impacts to these species and their habitat.
- The transmission analyses in the PEIS should take advantage of and be consistent with ongoing transmission siting efforts, including the federal transmission siting process, the California AB 1045 transmission siting process, and the California Renewable Energy Transmission Initiative (RETI) process, in which BLM has been a participating agency. Local generation to reduce impacts associated with transmission should be considered either as a component of one of the alternatives or as a stand alone alternative
- The PEIS should evaluate the potential effects from both utility-scale solar project construction and transmission on BLM lands that were considered set-aside to mitigate for other projects. Avoiding, minimizing and mitigating impacts to these lands should be considered as an important project siting criteria.
- The PEIS should evaluate the potential effects of habitat fragmentation and impacts to migratory and movement corridors for desert species which may result from the large construction footprint of utility-scale solar projects. Avoidance and minimization of impacts to movement corridors and habitat connectivity should be considered as important siting criteria.
- The PEIS should evaluate the potential effects of a loss of public lands available for scenic open space and recreational uses.
- The PEIS should address water demand and the potential effect of groundwater extraction to support construction activities and for the operation of solar plants that utilize wet cooling. The evaluation should include both the use of groundwater by individual projects and the impacts to desert washes which feed

dry lakes and aid to recharge the groundwater. This analysis should also address any associated effects on species and their habitats.

- The PEIS should analyze greenhouse gas emissions and their potential environmental effects for solar energy facilities that burn natural gas or other carbon-based fuels as a tandem or back-up fuel supply.

The Department is prepared to provide information and special expertise and to work cooperatively with the BLM and DOE, industry and public stakeholders to ensure conservation of California's trust resources. We look forward to working closely with BLM and DOE on the development of the Solar Energy PEIS as it relates to California. If you have any questions regarding the scoping comments, please contact me by telephone at (916) 653-1070, or at the letterhead address above.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott A. Flint". The signature is stylized and cursive.

Scott A. Flint  
Environmental Program Manager  
Environmental Review and Permitting  
California Department of Fish and Game