

Thank you for your comment, Kathleen Zimmerman.

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Solar Energy Development PEIS
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Attachment: NWF Solar PEIS scoping comments FINAL.pdf

Comment Submitted:

Comments of the National Wildlife Federation are attached. [See Attachment.](#)



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July 15, 2008

Solar Energy PEIS, Scoping
Argonne National Laboratory
9700 South Cass Avenue -- EVS/900
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Delivered via electronic and regular mail

**Re: Scoping Comments for the Programmatic Environmental Impact Statement
to Evaluate Solar Energy Development**

To Whom It May Concern:

These comments are submitted on behalf of the National Wildlife Federation (NWF). NWF appreciates the opportunity to submit these comments to the Department of Energy, the Bureau of Land Management, and the Department of the Interior [hereinafter Agencies]. NWF is submitting these comments today via electronic mail and forwarding a copy separately by mail.

As an organization, NWF represents the power and commitment of four million members and supporters joined by affiliated organizations in 47 states and territories and the District of Columbia. NWF and its affiliates have a long history of working to conserve the wildlife and wild places in the West. Many members of NWF and its affiliates use the lands and resources that will be impacted by utility-scale solar energy generation facilities constructed on federal public lands; they also use and enjoy wildlife resources that may be impacted by construction of these facilities on other federal lands, as well as state, private and tribal lands.

NWF also recognizes that global warming poses an enormous threat to both the human environment and the earth's biologic diversity. For that reason, NWF has called for a rapid transition to energy sources other than fossil fuels that contribute to greenhouse gas (GHG) emissions and global warming. The generation of electricity via solar energy, including utility-scale facilities, is an important component of that transition. Without

immediate and decisive steps to curb GHG emissions, the long-term survival of many wildlife species is in jeopardy.

NWF urges the Agencies to learn from their experiences with oil and gas development and other human activities in vital wildlife habitats. Development of utility-scale solar energy generation facilities will transform the lands upon which they are located and preclude most other uses. As noted by the Bureau of Land Management (BLM), other uses of these sites “are unlikely due to the intensive use of the site for PV [photovoltaic] or CSP [concentrating solar power] facility equipment.” Instruction Memorandum (IM) No. 2007-097. An inappropriately sited and constructed solar energy facility has the potential to cause significant damage to the environment and to eliminate wildlife habitat. Accordingly, it is crucial that Agencies commit to avoiding sensitive wildlife habitats and consider maximizing use of existing infrastructure in siting solar facilities.

The Agencies should use this programmatic environmental impact statement (Solar Energy PEIS) to narrow the task of siting responsible construction of utility-scale solar energy generation facilities by delineating areas or conditions where construction of such facilities would be unsuitable, determining areas or conditions where construction should be avoided, and by establishing best management practices (BMPs) for the construction and operation of such facilities on both public and private lands.

The final Solar Energy PEIS should include a commitment to conduct site-specific environmental impact analyses when individual locations and proposed uses are identified. This programmatic document should concentrate instead on the general effects of utility-scale solar energy generation facilities and identify wide-ranging measures for avoiding or mitigating those effects. This was the approach taken by the Department of the Interior in its Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States (Wind Energy PEIS) released in June 2005. NWF urges the Agencies to adopt the same methodology here. NWF believes this approach will afford opportunities to expedite review and approval of individual projects.

DESIGNATION OF EXCLUSION AREAS AND AREAS OF AVOIDANCE

The Wind Energy PEIS specifically acknowledged the importance of keeping development out of special lands and identified areas where wind energy development would not be authorized. The Wind Energy PEIS excluded all Wilderness, BLM National Landscape Conservation System lands, and Areas of Critical Environmental Concern from consideration for development of wind energy facilities.

Additional exclusion areas for energy corridors should include: National Parks; National Wildlife Refuges; National Monuments; National Conservation Areas; National Historic and National Scenic Trails; National Wild, Scenic, and Recreational Rivers, as well as rivers and river segments under study or considered eligible for such designations;

Roadless Areas; and threatened, endangered and sensitive species habitat, as well as other important wildlife habitats and migration linkages.

Riparian areas should be avoided where possible because of their ecological significance as well as areas with high wildlife, scenic, or primitive recreation values.

The Solar Energy PEIS should address whether lands that are already impaired be considered first for proposed utility-scale solar development. Abandoned mines, developed oil and gas fields, and other “brownfields”, which are not being restored to ecological function, provide opportunities for solar energy development without loss of other uses and values.¹ In particular, the Agencies should consider the availability of impaired areas on private land as alternatives to development on public land. The Agencies should encourage the use of existing infrastructure within already disturbed areas as much as possible. There are enormous advantages to this approach. It will reduce the overall financial costs of projects from planning to construction to maintenance. It will reduce impacts to wildlife and sensitive lands. In addition, the Agencies should consider the availability of water either on-site or from other sources.

BEST MANAGEMENT PRACTICES

NWF also urges the Agencies to adopt BMPs intended to avoid additional fragmentation of wildlife habitat. While fragmentation can be difficult to measure, there are ways to do so.² NWF refers the Agencies to the discussion of habitat fragmentation contained in the scoping comments submitted by The Wilderness Society (TWS) and join TWS in its recommendation that the Solar Energy PEIS include an analysis of the existing degree of fragmentation on western federal lands under consideration, its impact on wildlife, and appropriate locations for utility-scale solar energy generation facilities that will avoid such habitat losses.³ For example, the Agencies should adopt limits on the amount of disturbed acreage permitted within certain habitat types.⁴

¹ DOE has already emphasized the benefits of using brownfields for solar energy development in its “Brightfields” initiative, an attempt to revitalize heavily-impacted industrial areas by turning them into large-scale renewable energy generating areas.

² See, e.g., Wyoming Game and Fish Department, “A Strategy for Managing Energy Development Consistently with the FLPMA Principles of Multiple Use and Sustained Yield” (available on WGFD’s website at: <<http://gf.state.wy.us/habitat/index.asp>>)[hereinafter WGFD Guidelines]; Bureau of Land Management, Draft Vernal Resource Area Management Plan/Environmental Impact Statement (January 2005) Appendix I and Section 3.19.2.

³ An ongoing study by Sawyer et al. (2004) of GPS collared deer on the Pinedale Anticline observed that mule deer utilized habitat progressively farther from roads and well pads over three years of increasing gas development. The mule deer showed no evidence of acclimating to energy-related infrastructure.

⁴ See, e.g., WGFD Guidelines.

TERMS AND CONDITIONS OF RIGHTS-OF-WAY

The BLM will permit solar energy development subject to right-of-way (ROW) authorizations pursuant to the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. §§ 1701 *et seq.*, and implementing regulations, 43 C.F.R. Part 2800. Section 505 of FLPMA requires ROWs to include terms and conditions to “minimize” impacts on environmental resources. 43 U.S.C. § 1765. In order to achieve that requirement, all ROWs should contain the following components necessary for responsible development of utility-scale solar energy generation facilities.

Adaptive Management

ROWs for utility-scale solar energy generation facilities should require phased development of these facilities so that monitoring can determine whether actual impacts on the environment are consistent with those anticipated or whether additional mitigation measures are necessary before the project can proceed. Detailed monitoring plans should be required for the construction and operation of these facilities.

Management practices that will limit the overall impact of utility-scale solar development should be included in the terms of the ROW, such as:

1. locating facilities in proximity to existing transmission infrastructure, roadways and sources of other necessary resources;
2. minimizing the overall footprint of the facility; and
3. minimizing the use of water.

In addition, it should be clear in each ROW that management practices will be adapted in response to new information regarding both environmental impacts and the efficacy of mitigation measures.

Restoration

NWF is concerned that many of the lands impacted by utility-scale solar energy generation facilities in essence will be permanently dedicated to industrial uses. Nevertheless, lands disturbed during the construction phase must be fully restored. Where facilities are abandoned or retired, the entire site must be fully restored. Restoration requires reclamation of surface disturbance and revegetation with native species to return the lands to their previous ecological function. Bonding must be sufficient to cover the entire cost of restoration.

Revisions to BLM’s Current ROW Procedures

BLM’s ROW process is ill-suited to permitting utility-scale solar energy generation facilities. ROWs for utility-scale solar energy development will be long-term, if not permanent. They will entail the virtual exclusion of all other uses.⁵ Therefore, BLM

⁵ IM No. 2007-097.

should consider revisions to its ROW procedures to address the unusual nature of these ROWs. For example, the agency could consider raising the “rent” for these ROWs to include some form of royalty payment in order to provide a fair return to the public for the total loss of public access to these lands and to reflect the profits earned by this private use of public resources. BLM has an obligation to receive fair market value for the use of public lands. 43 U.S.C. § 1701(a)(9).

BLM should consider abandoning its traditional “first come, first served” approach to reviewing these ROWs. A more thoughtful assessment would provide an opportunity for BLM to compare the relative merits of various proposals, including their potential environmental impacts. This is particularly appropriate given that BLM currently has a backlog of more than 130 ROW applications for solar energy projects,⁶ Reviewing these applications one-by-one is not a process designed to identify projects that will “best meet the present and future needs of the American people.” 43 U.S.C. § 1702(c).

BLM’S PROPOSED PLANNING CRITERIA

The Notice of Intent for the Solar Energy PEIS identifies a list of planning criteria for amendment of applicable land use plans to incorporate the BLM’s solar energy program. In order for this PEIS to justify the amendment of land use plans, the analysis conducted under the National Environmental Policy Act (NEPA) must be sufficiently robust to support the determination that specific lands are suitable for development. NWF has several concerns about the listed planning criteria.

Develop Reasonable Foreseeable Development Scenario and Identify Lands Available for Development, Lands Available for Development with Restrictive Stipulations, and Lands Not Available

The Reasonably Foreseeable Development scenario

NWF supports the preparation of a reasonable foreseeable development scenario (RFD) for solar energy projects, but that RFD must be meaningful. NWF is concerned about both the speculative nature of this RFD and its use to guide future decisions within BLM’s planning areas.

The development of utility-scale solar energy generation facilities is new technology. BLM’s RFDs for better known technologies, such as oil and gas drilling operations, have been way off the mark. BLM’s oil and gas RFDs, completed in the mid-1980s, consistently underestimated both the amount of federal public lands that would be leased for oil and gas development and the number of wells that would be drilled. BLM also underestimated the impacts of those operations on wildlife.

⁶ NWF encourages BLM to commit some of the resources currently devoted to oil and gas lease sales and Applications for Permits to Drill to the review of these requests for ROWs.

The “market” factors that may encourage or discourage the construction of utility-scale solar energy generation facilities are, perhaps, less well understood than those that have created the current “boom” of oil and natural gas drilling on federal public lands. The RFD for solar energy development must speculate about the effects of such facets as world prices for other energy sources, the enactment of state and/or national renewable energy standards, the adoption of either “cap and trade” or carbon tax controls on GHG emissions, access to transmission, and tax subsidies for renewable energy projects. In addition, BLM has no experience with the environmental impacts of these facilities. For these reasons, the RMP amendments established by the Solar Energy PEIS must include methods for monitoring impacts to other resources managed by BLM and a specific plan for halting development should the RFD be exceeded.

Lands available for development with restrictive stipulations and lands not available

Due to the nature of utility-scale solar energy generation facilities, the efficacy of mitigation measures is severely limited. The only truly effective mitigation will be to close lands to this development.

Limit Amendments to Utility-Scale Solar Energy Development and Associated Transmission Issues

It may be necessary to amend management prescriptions for other resources in order to ensure that existing planning goals will still be met as lands are made available for utility-scale solar energy development. These additional prescriptions should be included in the RMP amendments.

Continue to Manage Other Resources Based On Current Terms of RMPs

The Solar Energy PEIS should address whether current RMP terms are satisfactory for protecting other resources after potential impacts from solar development have been analyzed and make changes as appropriate as part of the RMP amendments.

Recognize Valid Existing Rights

The Solar Energy PEIS should acknowledge that BLM has the ability to make significant changes in the implementation of oil and gas leases, grazing permits, and other authorizations to use public lands without invalidating existing rights.

Coordinate with Other Governments/Agencies and Seek Consistency

FLPMA requires that the BLM’s guidance and management policies shall “be consistent with officially approved and adopted resource related policies and programs of other Federal agencies, State and local governments and Indian tribes.” 43 U.S.C. § 1712(c)(9); 43 C.F.R. § 1610.3-2. NWF urges the Agencies to ensure that the RMP amendments adopted under this PEIS are consistent with other ongoing planning efforts in the region.

For example, the Western Governors Association's (WGA) Western Renewable Energy Zones (WREZ) is a cooperative initiative between the Western Governor's Association (WGA) and the Department of Energy (DOE) to address transmission barriers to increased renewable energy production in the West. WREZ intends to "generate (1) reliable information for use by decision-makers that supports the cost-effective and environmentally sensitive renewable energy development in specified zones, and (2) conceptual transmission plans for delivering that energy to load centers."⁷ Importantly, the WREZ effort will combine solar resource data from government and industry with lands, wildlife and natural resource information from state agencies and the conservation community.

The West-wide Energy Corridors PEIS is a joint planning process among DOE, BLM, the United States Forest Service, and the Department of Defense. It intends to designate appropriate transmission corridors on federal lands in the West. The Solar Energy PEIS should avoid the designation of multiple corridors serving the same transmission needs.

In addition, the WGA has recently produced the Wildlife Corridors Initiative Report (available at <http://www.westgov.org/wga/publicat/wildlife08.pdf>) which identifies important wildlife corridors and habitats in the western states and makes recommendations for conserving these crucial areas. BLM should consult this report for information on the areas identified and confer with the WGA Western Wildlife Habitat Council.

Coordinate with Tribal Governments and Provide Strategies for Protection of Traditional Uses

BLM should ensure that Native American tribal governments are consulted in order to identify lands with religious or cultural significance that should be off-limits to utility-scale solar energy generation facilities or require special management.

Environmental Protection and Energy Production Are both Desirable and Necessary, Not Mutually Exclusive

Energy development in the wrong place or without reasonable and adequate measures to ensure the conservation of other resources is irresponsible whether the energy source is fossil fuels or wind or solar. FLPMA mandates that the public lands be managed "without permanent impairment of the productivity of the land or quality of the environment." 43 U.S.C. 1702(c). It also mandates that the public lands be managed to provide "habitat for fish and wildlife". 43 U.S.C. § 1701(a)(8). While environmental protection and energy production are not mutually exclusive, the needs of wildlife and the exigencies of energy production, at least in some locations, are not always compatible. Multiple use is not achieved by maximizing the number of uses permitted to languish on each acre of the federal public lands. 43 U.S.C. § 1702(c) ("The term 'multiple use' means the . . . use of some land for less than all of the resources . . .") NWF urges BLM

⁷ <http://www.westgov.org/wga/initiatives/wrez/>

to strike a balance that protects the wildlife heritage of the federal public lands and addresses the challenges wildlife face in a changing climate.

Consider and Analyze Climate Change Impacts, Including Anticipated Benefits from Solar

There will be climate change benefits to utility-scale solar energy generation facilities on federal public lands. Still, the Solar Energy PEIS must recognize the potential for adverse impacts. In assessing impacts to climate change, BLM should analyze net emissions. Savings in GHG emissions provided by some facilities may be cancelled out by GHG emitted during construction or fuels used for transportation to a remote site. More importantly, as wildlife migrates in response to climate changes, the availability of large blocks of unfragmented habitat and the linkages between them will be crucial to the ability of wildlife to survive. The loss of these important habitats may be a negative impact of siting utility-scale solar energy generation facilities on some lands. As yet, BLM has made no attempt to assess whether the management direction contained in its current RMPs is adequate to address those impacts of climate change on wildlife that cannot be reversed even with future reductions in GHG emissions. NWF urges BLM to do so.

ISSUES FOR FURTHER ANALYSIS WITH RESPECT TO BLM'S SOLAR ENERGY PROGRAM

The Scope of the NEPA analysis

The Solar Energy PEIS must analyze the cumulative impacts not just of the utility-scale solar energy generation facilities themselves but also of other projects that will impact the same environmental resources. For example, construction of utility-scale solar energy generation facilities will create pressure to designate transmission corridors. The availability of transmission corridors and facilities will attract other, more traditional, projects to the area. The combined impact of all these projects on the surrounding environment must be assessed in the Solar Energy PEIS. The availability of transmission facilities on federal public lands may discourage renewable energy development on private lands.

The current range of alternatives is inadequate. There are only three alternatives. Under both the “no action” alternative and the “limited development” alternative, BLM would continue considering ROWs for utility-scale solar energy generation facilities on a case-by-case basis. Only the “facilitated development” alternative provides for the preparation of some set of agency-wide criteria for approval of these ROWs. There are, however, no alternatives that would allow BLM and the public to compare the merits of various sets of criteria for facilitated development of utility-scale solar energy generation facilities on

federal public lands. The Solar Energy PEIS should include additional alternatives including:

- A facilitated program with exclusions for all lands with large blocks of unfragmented wildlife habitat and migration corridors in addition to those areas excluded in the Notice of Availability;
- A facilitated program that would be limited to disturbance of a specified percentage of lands within the watershed or habitat area; additional disturbance would only be permitted once habitat function had been restored; and/or
- A facilitated program that would only permit construction within already disturbed areas and in close proximity to existing transmission lines or designated transmission corridors.

Additional Transmission Corridors

The Notice of Intent states that: “the PEIS will consider whether designation by BLM of additional electricity transmission corridors on BLM-administered lands is necessary to facilitate utility-scale solar energy development.” As discussed above, the designation of new corridors should be considered in relation to existing transmission lines and the corridors currently being planned by the West-wide Energy Corridors PEIS and WREZ processes as well as others. If BLM is going to designate new corridors in the Solar Energy PEIS, then BLM must complete all of the necessary NEPA analysis for those corridors, including a thorough discussion as to why the ongoing corridor designation processes are inadequate.

DOE’S SOLAR ENERGY PROGRAM

The range of alternatives for DOE’s program is inadequate. DOE should provide a broader range of alternatives than BLM because the agency funds projects on tribal, state, private, and other federal lands in addition to BLM-administered lands. Yet, the Notice of Availability listed only two alternatives for DOE: facilitated program/no facilitated program. NWF urges DOE to develop alternatives that set forth various proposals for what DOE’s facilitated development program might look like. These alternatives might include prioritizing projects on already degraded lands such as Brownfield or Superfund sites or projects that maximize the use of existing infrastructure, prioritizing projects on tribal lands to secure economic benefits for Native Americans, or prioritizing projects with innovative technologies.

DOE should incorporate the planning criteria and the significant issues identified by BLM, as well as those discussed above, to develop standards for its funding of utility-scale solar energy generation facilities. The Solar Energy PEIS should identify criteria that would render some projects on federal, tribal, state, and private lands unsuitable for DOE funding, including a determination that funding will not be available for facilities proposed within important wildlife habitats. BMPs to conserve wildlife habitat should be

included in all DOE grants; failure to comply with these measures should result in the loss of funding.

CONCLUSION

NWF urges the Agencies to proceed expeditiously in the completion of the Solar Energy PEIS and to adopt solar energy programs that will facilitate the development of this critical resource. Global warming is a crisis of for which solutions must be implemented now. NWF thanks you for the opportunity to provide input regarding the development of solar energy programs for these Agencies. NWF looks forward to reviewing the draft PEIS when it is completed.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen C. Zimmerman", with a horizontal line extending to the right from the end of the signature.

Kathleen C. Zimmerman
Senior Land Stewardship Policy Specialist