SPORTSMEN FOR
Responsible Energy Development

January 27, 2012

Solar Energy Draft PEIS
Argonne National Laboratory
9700 S. Cass Avenue—EVS/240
Argonne, IL 60439

RE: Comments to the Supplement to the Draft Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States

To Whom It May Concern:

Please accept the following comments from the Sportsmen for Responsible Energy Development (SFRED) coalition, represented by the organizations signed below, on the Bureau of Land Management's (BLM) and the Department of Energy's (DOE) proposed **Supplement to the Draft Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States (SPEIS).** SFRED supports the public process underway as our nation moves forward in seeking responsible ways to develop our enormous solar potential on public lands in the West.

Sportsmen for Responsible Energy Development (SFRED) is a coalition of hunting, fishing and conservation organizations and individuals who represent the wide spectrum of America's outdoor community that support and promote responsible energy development on public lands. We are dedicated to the stewardship of America's landscape to help expand fish and wildlife habitat and increase public access to quality hunting and fishing. Our primary concern with any proposal to develop projects on federal lands is based on the needs of fish and wildlife and those who pursue fish and game for recreation and subsistence.

These comments supplement our organizations' previous comments on the Draft PEIS submitted in April 2011 and address only those new issues found in the Supplemental Draft PEIS (SPEIS). Our comments also include issues, concerns, and recommendations developed from sportsmen and conservation organizations who participated in the Sportsmen for Responsible Energy Development "Sportsmen Speak on Solar" forum held in Las Vegas on November 30, 2011. This forum had over 25 national, regional, and local conservation organizations represented and over 50 individuals participating, many of those groups have signed on to support these comments.

We would like to thank BLM for addressing some issues that we raised in our original comments and providing more detail and direction on how solar energy zones will be authorized and implemented. We also applaud BLM for identifying and committing to regional mitigation plans

and areas that will be excluded. We are also pleased to see that BLM is making a very conscientious effort to eliminate those zones that do not have production potential for industry and those that cannot immediately export the electricity produced due to lack of transmission capacity. This has made the existing Solar Energy Zones (SEZ) presented in the SPEIS more acceptable to sportsmen and will provide building blocks for considering new zones in the future.

The following are our specific comments on the details of the SPEIS and our concerns and recommendations for solar energy production on BLM lands that should be addressed in the Final PEIS.

Proposed Solar Energy Zones

The reduction in acreage and zones in the SPEIS is a positive effort to only include those areas that will have the least conflict with other uses and values, be attractive to industry for actual production of solar energy, and be able to immediately link to existing or soon-to-be-built transmission lines. As this is a programmatic document intended to set policy for solar production, the inclusion of SEZ and their subsequent authorization could be problematic. BLM has done a good job of screening the zones and efforts to further refine the SEZ should continue through to the Final PEIS. In addition, we recommend the BLM implement the recent BLM IM 2012-039 (*Identification and Uniform Mapping of Wildlife Corridors and Crucial Habitat*, or CHAT) released January 1, 2012 and effective immediately. This new directive is pursuant to a Memorandum of Understanding (MOU) with the Western Governors' Association and their ongoing coordination among Federal agencies and states to provide better information about priority habitats. As for future SEZ, the process should follow a similar process for establishment and refinement. Positive developments within the SPEIS include:

- Reduction of acreage for SEZ from 677,000 acres to 285,000 acres
- Reduction in availability outside zones from 21.6 Million acres to 20.3 Million acres
- Increased projected utilized acreage from 31.6% to 75% = efficient use of designated SEZ
- 24,000 MW of energy that is not produced by fossil fuels
- Reduction of SEZ from 24 to 17
- Optimized linkage to existing or real transmission

Recommendations

1. Continue to screen proposed SEZ and pending applications for Solar Right of Ways (ROW) to provide enough acreage for solar energy production, with the ability to link to transmission lines, in the least conflicting areas with fish and wildlife resources and values.

2. Create additional screening criteria for the inclusion of impacts to recreation of public lands that will be affected by the development of SEZ. Recreation must include hunting, fishing, and other fish and wildlife related activities.
3. Only designate areas for SEZ that will be utilized for solar energy production and strive to keep a 75% utilization rate of lands designated as SEZ. This will minimize the amount of needed acres for solar production and eliminate the problems with lands being held for future development without real intention for production (speculation).
4. Delay taking any new applications for Solar ROW until the Final PEIS and Record of Decision (ROD) is signed. By continuing to accept ROW applications, BLM is creating a workload problem and may run into problems with implementation of the ROD. This will also build trust with other public land users who have experienced inadequate decisions resulting in significant impacts from the BLM during oil and gas leasing and development.
5. Include in the Final PEIS an analysis of those areas outside of the SEZ that will experience reduced access for hunting and shooting activities because of buffers or "no shooting zones".

Handling of Existing Solar Applications

We are concerned that the current solar project applications, pending or authorized, will have inadequate guidance frameworks for siting, evaluation, monitoring, and enforcement of environmental quality control. Due to the uniqueness of solar development and the limited research on its environmental impacts, we remain concerned that the "grandfathering" of 79 applications and more than 685,000 acres under current management direction is problematic. A primary concern of ours is the effects on groundwater and surface water sources. In addition, the determination of the priority for processing these previous applications will have an impact on the availability of Agency personnel needed to work on new applications within the approved SEZ.

We support the concept of solar energy development but we must be realistic about the potential direct and indirect impacts that can occur. The use of parabolic trough and central tower systems requiring steam plants for their electricity source require relatively large volumes of water. Water sources in a desert environment remain scarce and highly valuable, especially for fish and wildlife species. With the unknown impacts concentrated solar power facilities would have on temperature variations and associated effects to the surrounding habitat, we recommend that all pending and pre-approved applications under current policies include commitments for rigorous monitoring, reporting, and research in order to minimize and correct any indicated problems.

Regional Mitigation Plans

We are very pleased to see the BLM commit to mitigation as part of the SPEIS, but we have concerns with the certainty of implementation and the funding required to conduct successful mitigation of impacts. We have observed mitigation being used by many agencies, including the BLM, as a "justification" for authorizing energy development on sensitive wildlife areas. However, these mitigation efforts often lack a rigorous, science-based mitigation program that has effectively allowed for resources to be sustained, as promised, throughout development. The worst-case example is the Pinedale Anticline natural gas project in western Wyoming where mule deer and sage-grouse declines have occurred beyond acceptable levels. Although millions of dollars have been spent on mitigation there is no evidence that the impacts have been offset, alleviated or replaced. Mitigation can be very expensive, particularly if you have a large magnitude impact on species that have specialized habitat needs or in arid environments.

Recommendations

1. Completion of Regional Mitigation Plans for each region (can be defined within the Final PEIS) and actions that will be part of any SEZ authorization ***within 6 months*** of the ROD for the Final PEIS. These plans should include population or habitat objectives and impact thresholds for each focus species or habitat and <u>also include mitigation for impacts to recreation and loss of access to public lands.</u>
2. Regional Mitigation Plans should be based on current guidelines for mitigation published by the Council for Environmental Quality (CEQ) . This includes a commitment to science-based, structured mitigation plans that are based on a "value-for-value" approach.
3. Regional Mitigation Advisory Teams should be constructed with members consisting of affected stakeholders, industry, government (Federal, State, Local), and external scientists. These advisory teams should be in place within 6 months of the Final PEIS and ROD or within 6 months of each new SEZ being authorized.
4. Mitigation trust accounts should be established for each Regional Mitigation Plan that will be used to carry out mitigation activities. Funding for each trust account should be identified in the Final PEIS.
5. For solar energy activities that are tiered to the Final PEIS, the CEQ guidelines for mitigation during NEPA planning should be followed if activities are authorized using a Finding of No Significant Impact.

Exclusion Areas

We support the BLM's approach to identifying areas of public lands where solar energy will not be a suitable use. This approach will provide certainty for industry and allow for other multiple-use resource values to be managed without fear of impacts from solar energy. Our organizations have advocated and promoted the identification of "special areas" that are too valuable to develop and the BLM's strategy is congruent with that approach. We understand

the need for some flexibility in these areas based on changing conditions but it must be used very carefully and with public consideration of the tradeoffs.

Recommendations

1. Provide more details for the exclusion areas to eliminate any confusion or misinterpretation of values or areas that will be included.
2. Include high value and high use recreation areas, including those areas that are deemed irreplaceable or "world class" for fish and wildlife habitat or hunting and fishing activities.
3. Provide for a systematic monitoring process and review for exclusion areas every 5 years with stakeholder involvement.
4. Incorporate other processes being developed to identify important fish and wildlife values such as the Western Governors Association's sponsored Critical Habitat Assessment Tool (CHAT) and state fish and wildlife agencies' developed Decision Support Systems.
5. Provide detailed status maps via a designated website for the exclusion areas and the reason they are being excluded from solar development.

Variance Process

We understand the desire to have a process in place for the development of solar energy outside of those SEZ identified in the PEIS. We also understand the BLM's need to comply with the Federal Land Policy and Management Act (FLPMA) requirements for the identification of suitable uses for lands through the Resource Management Plans (RMPs) for BLM administered lands. We have concerns, however, based upon BLM's experience with oil and gas leasing and development, that similar mistakes may be made in the authorization of public lands for solar energy development. It is for that reason that we strongly support the designation of SEZ. The variance process as set forth in the SPEIS could undermine the value of SEZ. We are concerned that many of the factors identified in the variance process need only be "considered" by BLM. We are concerned that the process does not emphasize the value of meaningful public involvement. We are also concerned that the variance process will result in never ending planning and NEPA documents, which take up needed resources and funding for other management needs.

Recommendations

1. Require advanced public and outside government stakeholder notification and meetings similar to pre-proposal meetings with BLM, as identified in the Final PEIS.
2. Clarify when the variance process will be employed and how the BLM will make the information available for public review and comment.
3. Require an annual meeting within each state that reports on any new applications for solar development that will be disclosed to the public.
4. Post all variance requests and affiliated documents on each state BLM office's website within 30 days of receipt.

5. Outline how BLM will entertain changes to the variance process and how often the variance process will be reviewed or revised. We recommend a thorough review every 5 years
6. Applicants should be required to meet some of the factors listed for consideration, including the viability of the project and that it will have little or no impact on other public lands resources, before a variance will be granted.

Adaptive Management

The BLM's historical application of adaptive management for energy development has been largely inadequate. We understand the flexibility and advantages of using a scientific adaptive management approach to land management but have concerns that given the lengthy time commitment, the large geographic area devoted to solar energy production, and the lack of technical options for producing solar energy that adaptive management may not be the best approach. We do not advocate using an adaptive management approach in the Final PEIS, but if BLM chooses to keep this approach we recommend the items below.

Recommendations

1. Review the applicability of the use of adaptive management for solar energy through the advice of experts in adaptive management – both within federal government and external sources.
2. Provide clear guidance and instruction on how adaptive management will be applied to BLM lands used for solar energy. This includes how adjustments to operations will be made, how monitoring will be conducted and funded, how annual review cycles will be held, timelines to be met and what authorizations or uses will be changed based on monitoring results.
3. Follow DOI handbook on Adaptive Management and other guiding documents available in published literature.
4. Establish an adaptive management review team, including external experts, which will have the responsibility and authority to ensure successful implementation of adaptive management.
5. Create a webpage available to the public that posts current and relevant information of the implementation of the adaptive management program.

Public/Stakeholder Involvement

Public lands belong to all Americans and are held in trust for the public by the BLM. Hunters, anglers, and other public land users are stakeholders in the management of public lands and must be engaged early and often in the policy discussions and decision making processes. BLM has done a good job to date on the SPEIS and that effort must continue as SEZ are authorized, exclusion areas are identified, mitigation plans are made, and the variance process takes shape.

Recommendations

1. Require the public to be notified on all implementation of solar energy development on public lands via the Internet, local media sources, and other avenues for notification.
2. Develop a dedicated webpage for the implementation, mitigation, and variance process for solar development on public lands.
3. Make all data used for decisions, monitoring, and variance processes available in a timely manner to the public for download and use.
4. Hold annual review meetings on the implementation and mitigation actions of solar development on public lands.
5. Develop specific stakeholder groups, including sportsmen and conservation organizations, that can work with industry at the local or regional level.

Wildlife

The management of habitat is extremely important for the future of fish and wildlife on public lands. In addition to habitat concerns, applying professional wildlife management practices and ensuring access to public lands for research and recreation is also of importance. Sensitive species and other important habitats should be identified and considered for exclusion areas. Important surface and groundwater sources must be protected. Mitigation plans must meet the needs of fish and wildlife and habitat should be linked to populations and objectives for each set in coordination with state and federal fish and wildlife agencies. Of particular concern are sage-grouse, mule deer, desert bighorn sheep.

Recommendations

1. Identify important fish and wildlife habitats and migration/movement corridors for each region in coordination with federal and state fish and wildlife agencies and by utilizing CHAT.
2. Avoid all irreplaceable habitats or other areas where solar development would have irreparable impacts to fish and wildlife.
3. Develop a process to link habitat management on public lands to state population objectives for game species like deer, elk, bighorn sheep, and upland game birds.
4. Develop a regular review process for reviewing the fish and wildlife management activities taking place in conjunction with solar energy development and how to include future science and information into land management.
5. Identify gaps in knowledge or science for the impacts on fish and wildlife from solar energy development and assist with funding research projects to address those gaps.

Sage-Grouse

1. Develop a process for inclusion of any future federal, state, or local management planning for sage-grouse on public lands including adjustments that may result from federal protection due to an Endangered Species Act listing.

2. Adjust the habitat mitigation ratio from 1:1 (which is not adequate to ensure sustainable sage-grouse populations and is not based on science) to a more appropriate value-for-value ratio based on current science or other mitigation (i.e. – Fish and Wildlife Coordination Act).
3. Ensure that sport hunting for sage-grouse is not closed or restricted due to solar energy development on public lands.

Mule Deer

1. Identify key mule deer migration and movement routes in addition to other key habitats (winter, parturition) and avoid impacts to these habitats that would impair their continued productive use by mule deer.
2. Implement the recommendations contained within the 2011 Western Association of Fish and Wildlife Agencies Mule Deer Working Group publication, "Energy Development Guidelines for Mule Deer."
3. Implement the recommendations contained within the 2011 Theodore Roosevelt Conservation Partnership report, "Mule Deer and Energy: Federal Policy and Planning in the Greater Green River Basin."
4. Develop a Memorandum of Understanding with the Mule Deer Foundation and other conservation groups on mule deer management on public lands within each region affected by solar energy development.
5. Ensure that mule deer hunting or access to mule deer hunting are not closed or restricted due to solar energy development on public lands.

Bighorn Sheep

1. Identify key bighorn sheep migration and movement routes in addition to other key habitats (winter, parturition) and avoid impacts to these habitats that would impair their continued use by bighorn sheep.
2. Adhere to any specific bighorn sheep management plans that are developed by the state fish and wildlife agencies.
3. Develop a Memorandum of Understanding with the bighorn sheep focused groups and other conservation groups on bighorn sheep management on public lands within each region affected by solar energy development.
4. Ensure that bighorn sheep hunting or access to bighorn sheep hunting are not closed or restricted due to solar energy development on public lands.
5. Use habitat enhancements or other accepted techniques to prevent bighorn sheep from utilizing habitats close to SEZ and other high visibility areas that might put them at risk.

Access

The ability to access and use public lands is imperative to multiple-use management and public trust stewardship. Solar Energy Zones will convert many acres of public lands to single use and

that will result in loss of access and use of those lands within, and possibly adjacent to, authorized SEZ.

Recommendations

1. Ensure that overall access to public lands will not be affected other than those lands that are essential for solar energy production.
2. Require all losses of access to be offset by the acquisition of private lands, access easements to private lands, or access to currently inaccessible isolated public lands.
3. No shooting zones or other restrictions to hunting and shooting need to be identified in the Final PEIS and those acres adequately mitigated.
4. Public use of roads, trails, and other rights-of-way for access to public lands should not be impacted, unless compensation is provided.
5. No region or state should have so much solar energy development that the public would be dissuaded from accessing public lands due to industrial solar energy development.

Cumulative Impacts

Solar energy development is just one of the types of use that is authorized on public lands that creates stress on fish and wildlife, watersheds, air quality and public land users. The secondary infrastructure required for transmission lines for solar power can have a much larger impact that is often not fully taken into account. In order to understand the magnitude of impacts that solar energy contributes, a comprehensive cumulative impact evaluation is needed. Often NEPA documents have weak cumulative impact analysis requirements and defer this important information to a later time and then it is never completed.

Recommendations

1. The cumulative impact analysis should include impacts from all existing and future energy development (oil/gas, coal-bed methane, wind, geothermal) and mineral extraction (coal, uranium, precious metals) as well as development on adjacent or nearby non-federal lands.
2. Cumulative impacts should be tied to the mitigation planning to effectively alleviate impacts to fish and wildlife resources, access, and recreation.
3. An “energy road map” for each state should be developed by BLM to identify what type of energy and how much of each type will be produced for the near (10 year) term.
4. Solar energy zones or variance applications should not proceed in areas where cumulative impacts would result in unacceptable impacts or irretrievable losses to fish, wildlife, and outdoor recreation.
5. No loss of hunting or fishing opportunities should result from cumulative impacts associated with solar energy development on public lands.

Compensation

The designation and authorization of solar energy development on public lands is a new paradigm in energy development for public land management. SEZ will become single use areas and could be interpreted as a change in the multiple-use management (this is also true for intensive industrial authorizations of other forms of energy development like oil, gas, and wind). In order to adequately offset the conversion of public lands to a single use, compensation mitigation must be applied as lands are designated for solar energy development.

Recommendations

1. Compensatory mitigation actions should be incorporated in Regional Mitigation Plans and include actions for losses to fish and wildlife habitats, access, and outdoor recreation.
2. Compensatory mitigation ratios should be established to identify how much compensation is required for each resource and value that is converted to single use.
3. Lands within each region should be designated as "compensatory reserves" where energy development (all types) would not take place to off-et the designation of SEZ. These reserves should be in areas where fish, wildlife, recreation, and access can be sustained for the life of the SEZ.
4. Voluntary exchanges, easements, or other actions from industry to compensate for the designation of SEZ should be included in the Final PEIS.
5. Funding mechanisms, either appropriated or voluntary, should be included in the mitigation trust fund and established in the Final PEIS.

Additional Recommendations

1. Continue to move forward with the SPEIS and complete a final document in 2012.
2. Establish a process for competitive leasing for solar energy on public lands within or outside of SEZ to generate a fair return for the use of public lands. Integrate successful local, state, or regional planning into the Final PEIS and ROD. We strongly support the process where all future solar energy development proposals are executed with a competitive lease process. Currently the BLM is seeking comments on developing regulations for competitive leasing of solar and wind energy on public lands. We applaud and support this effort. We believe such a process will provide a more enhanced development review structure and public review process for guiding location and implementation of solar and wind projects on our nation's public lands.
3. Evaluate the potential socio-economic loss of hunting, fishing, and other recreation on public lands from the development of solar energy and the designation of SEZ and mitigate it.

4. Improve the analysis of how surface and groundwater is going to be impacted and provide more details on how water allocation and use will be secured and conserved by solar energy proponents.
5. Continue to seek additional funding for mitigation and compensation for impacts to fish, wildlife, access and recreation.

State Specific Comments/Recommendations

California

1. Remove the Iron Mountain Solar Energy Zone from further consideration or defer it until it is addressed in the Desert Renewable Energy Conservation Plan (DCREP) process.
2. Subject all proposals outside of SEZ including in the variance areas to the DCREP process before moving forward with solar projects.
3. Identify potential private lands that could be used to increase the amount of acreage that SEZ could entail to protect sensitive fish and wildlife habitats.
4. Coordinate all SEZ and Variance processes with on-going and soon-to-be-completed BLM Resource Management Plan amendments.
5. Incorporate the final DCREP plans into future solar energy development on public lands through appropriate NEPA and RMP amendments.

Nevada

1. Suspend the variance process until the existing 24 applications have been put through the SEZ screening and process for potential designation.
2. Carry forward the proposal to remove the west flank of the old Dry Lake North SEZ as it was in a mule deer migration corridor and the East Mormon Mountain SEZ due to the potential for cutting off already limited access to the Mormon Range

In conclusion, we are pleased with the progress the BLM has made and its commitment to addressing concerns that the SFRED coalition and our individual organizations have raised in the Draft PEIS. Our coalition supports responsible energy development on public lands and applaud the BLM for moving solar energy development in this direction. We look forward to continuing to work with the BLM on the development of the Solar PEIS and offer our assistance in those areas where we have specific policy or management expertise such as mitigation of fish, wildlife and recreational impacts from energy development

Sincerely,

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Arizona Wildlife Federation
Backcountry Hunters and Anglers
Bull Moose Sportsmen's Alliance
Colorado Wildlife Federation
Desert Bighorn Sheep Council
Fraternity of the Desert Bighorn
New Mexico Wildlife Federation
Quail & Upland Wildlife Federation
Quail & Upland Wildlife Federation – Santa Clarita Valley Chapter
The Wildlife Society
World Wildlife Fund – Freedom to Roam Initiative