

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105-3901

June 3, 2010

George R. Meckfessel  
Bureau of Land Management  
Needles Field Office  
1303 South U.S. Highway 95  
Needles, CA 92363

Subject: Supplemental Draft Environmental Impact Statement for the Ivanpah Solar Electric Generating System, San Bernardino County, California [CEQ# 20100132]

Dear Mr. Meckfessel:

The U.S. Environmental Protection Agency (EPA) has reviewed the Supplemental Draft Environmental Impact Statement (SDEIS) for the Ivanpah Solar Electric Generating System (ISEGS) Project (Project). Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) Regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act (CAA).

EPA continues to support increasing the development of renewable energy resources in an expeditious and well planned manner. While renewable energy facilities offer many environmental benefits, appropriate siting and design of such facilities is of paramount importance. In making its decisions regarding whether or not to grant rights-of-way for such projects, we recommend that the Bureau of Land Management (BLM) consider a full range of reasonable alternatives to minimize the adverse environmental impacts. As we have previously advised, such alternatives could include alternative technologies or altered project footprints at the proposed location, as well as alternate sites, such as inactive mining or other disturbed sites that may offer advantages in terms of availability of infrastructure and less vulnerable habitats. Given the large number of renewable energy project applications currently under consideration, particularly in the Desert Southwest, we continue to encourage BLM to apply its land management authorities in a manner that will promote a long-term sustainable balance between available energy supplies, energy demand, and protection of ecosystems and human health.

EPA provided comments to BLM and the California Energy Commission (CEC) on the Joint Draft Environmental Impact Statement (DEIS) and Final Staff Assessment for the ISEGS Project on February 11, 2010. We rated the DEIS as Environmental Concerns – Insufficient Information (EC-2) due to concerns regarding 1) current justification for the Project purpose, need, and independent utility; 2) range of alternatives; 3) impacts to biological and aquatic resources; 4) impacts to air quality; 5) impacts to endangered species and other species of concern; and, 6) cumulative impacts from reasonably foreseeable future actions. We recommended BLM prepare an SDEIS that addressed comments on the DEIS.

BLM has prepared the subject SDEIS to analyze two additional alternatives to the proposed 400 megawatt (MW) Project: a reduced acreage alternative called the Mitigated Ivanpah 3 Alternative, and a reconfigured alternative called the Modified I-15 Alternative. The facility evaluated in each of these alternatives is a solar electric generating facility with a generating capacity of 370 MW. On May 25th, 2010, in a follow-up conversation between our agencies, we requested and received a two day extension of the comment period for the SDEIS to best address BLM's needs. We appreciate your accommodation of our request.

In our February 11, 2010 comment letter on the DEIS, we recommended that the SDEIS broaden the purpose and need statement to allow for a full evaluation of other alternatives, including off-site locations and other environmentally preferable on-site alternatives. While we commend BLM for evaluating reduced acreage alternatives and a modified purpose and need statement in the SDEIS, our concerns regarding the environmental impacts of the Project and the need for evaluation of a reasonable range of alternatives are only partially addressed. Therefore, we are rating this SDEIS as EC-2, Environmental Concerns – Insufficient Information (see attached “Summary of EPA Rating System”). Our detailed comments are attached.

We appreciate the opportunity to review this SDEIS as well as the multitude of DEISs under preparation for renewable energy projects in our Region. We are available to further discuss all recommendations provided. When the Final EIS is released for public review, please send two hard copies and two CDs to the address above (Mail Code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Tom Plenys, the lead reviewer for this Project. Tom can be reached at 415-972-3238 or [plenys.thomas@epa.gov](mailto:plenys.thomas@epa.gov).

Sincerely,

/s/

Kathleen M. Goforth, Manager  
Environmental Review Office (CED-2)

Enclosures: Summary of EPA Rating Definitions  
Detailed Comments

Cc: Jim Abbott, Bureau of Land Management, Acting State Director  
Tom Hurshman, Bureau of Land Management  
John Kessler, California Energy Commission  
Shannon Pankratz, U.S. Army Corps of Engineers  
Brian Croft, U. S. Fish and Wildlife Service  
Becky Jones, California Department of Fish and Game

**US EPA (EPA) DETAILED COMMENTS ON THE SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT (SDEIS) FOR THE IVANPAH SOLAR ELECTRIC GENERATING SYSTEM (ISEGS), SAN BERNARDINO COUNTY, CALIFORNIA, JUNE 3, 2010**

EPA commends the Bureau of Land Management (BLM) for including a modified purpose and need statement and additional alternatives in the SDEIS. We provide additional comments on the SDEIS related to these analyses below. Since the SDEIS only includes changes to the original DEIS relative to the purpose and need and alternatives analyzed, our comments are specific to the new information provided in the SDEIS on these topics. Unless specified otherwise, our February 11, 2010 DEIS comments still apply.

**Purpose and Need**

The DEIS identified three project objectives that were intended to reflect the Applicant's objectives and BLM's stated Purpose and Need of the Project. These three objectives were: 1) to safely and economically construct and operate a nominal 400-MW, renewable power generating facility in California capable of selling competitively priced renewable energy consistent with the needs of California utilities; 2) to locate the facility in areas of high solar intensity with ground slope of less than 5 percent; and, 3) to complete the impact analysis of the project by the first quarter of 2010 so that, if approved, construction could be authorized in 2010 and beyond. The DEIS indicated that these objectives were considered in the comparison of alternatives as required under the National Environmental Policy Act (NEPA).

EPA supports BLM's determination in the SDEIS to remove the set generation capacity or output of the Project from the purpose and need statement. By removing the 400 megawatts (MW) specified in the DEIS, BLM is able to consider other alternatives that could have lesser or greater generation capacities (at pg. 8). The SDEIS does not address the timeline constraint specified by the third objective. To allow for evaluation of a full range of reasonable alternatives, EPA continues to recommend that the Project's objectives should not restrict the Project to a specific timeline.

Recommendations:

- Revise the Project's objectives to remove the time constraint for completion of the impact analysis so that construction could be authorized. The deadline imposed by the time constraints appears to preclude further analysis of the Project's impacts, which may unduly restrict the consideration of alternatives. Rather than limiting the alternatives to those able to meet a certain deadline, BLM should identify and evaluate a full range of reasonable alternatives and specify whether or not each can meet the desired deadline. This would enable decision makers and the public to make informed decisions about whether or not the benefit of meeting the desired deadline outweighs the benefits of other alternatives that would not meet that deadline.
- Discuss in the FEIS whether the 2010 timeframe to begin construction served as a key criterion for identifying, evaluating, or eliminating alternatives from future analyses.

The DEIS eliminated certain alternatives because they required land outside of the applied-for ROW. The SDEIS includes the Modified I-15 alternative, which proposes locating a portion of the Project outside of the ROW. The SDEIS indicates that the evaluation concluded that the Modified I-15 Alternative would accomplish all of the objectives of the purpose and need, including meeting power demand, as well as federal and state objectives for renewable energy development (at pg. 2). The FEIS should discuss how an alternative that extends outside of the applied-for ROW could meet the purpose and need, given that this was used as a rationale in the DEIS to eliminate certain alternatives. The discussion should cite any regulation or BLM policy that limits the evaluation of alternatives outside of the right of way (ROW) for which an application has been received.

As stated in our scoping comments, reasonable alternatives should include, but are not necessarily limited to, alternative sites, capacities, and technologies, as well as alternatives that identify environmentally sensitive areas or areas with potential use conflicts. A robust range of alternatives will include more options for avoiding significant environmental impacts.

Recommendations:

- Include supporting documentation and additional discussion on BLM's rationale for the elimination of off-site alternatives from further consideration under NEPA.
- The FEIS should discuss how an alternative that includes a portion outside of the applied-for ROW could meet the purpose and need given this was used as a rationale in the DEIS to eliminate certain alternatives.

### **Additional Proposed Alternatives**

The SDEIS analyzes two additional alternatives to the proposed 400 MW Project: a reduced acreage alternative called the Mitigated Ivanpah 3 Alternative, and a reconfigured alternative called the Modified I-15 Alternative. We are encouraged by both of these alternatives for various reasons, including the potential to avoid the northern 433 acres of the proposed Project site which had the highest concentrations of desert tortoise and rare plants, and is also the area that presented the greatest risk of potential stormwater damage. The SDEIS indicates that the FEIS will compare these new alternatives to the proposed Project and the No Action alternative.

EPA recommends that the FEIS present the environmental impacts of all alternatives considered in comparative form, sharply defining the issues and providing a clear basis for choice among options for the decision maker and the public (40 CFR 1502.14). A rigorous comparison of the merits of each alternative would better achieve the purposes of NEPA.

From our review of the SDEIS, it is apparent that sufficient survey information was not available to adequately compare alternatives. The SDEIS concludes that "although impacts to plant species may also be different between the two alternatives, these impacts

cannot be determined without site-specific surveys on the Modified I-15 Alternative location” (at pg. 197). Similarly, the SDEIS estimates that tortoise impacts from the Modified I-15 Alternative are “likely also reduced” as compared to the Mitigated Ivanpah 3 Alternative (at pg. 200). Also, while the Modified I-15 Alternative would eliminate the need for grading 170 acres in the proposed Project footprint, the SDEIS indicates that the impact of the alternative on active drainage pathways, which are designated as Waters of the State, cannot be fully evaluated without detailed mapping and evaluation of the revised Ivanpah Unit 3 location (at pg. 159). Details are also lacking to compare and contrast alternatives for impacts to groundwater, stormwater flows, and downstream resources as well as other resource areas discussed.

Recommendations:

- The FEIS should clearly describe the rationale used to determine whether impacts of an alternative are significant or not. Thresholds of significance should be determined by considering the context and intensity of an action and its effects (40 CFR 1508.27).
- The FEIS should present environmental impacts from all alternatives considered in comparative form, sharply defining the issues and providing a clear basis for choice among options for the decision maker and the public (40 CFR 1502.14).
- The FEIS should fully justify the elimination of any alternatives that would result in fewer environmental impacts than the preferred alternative and should clearly explain why certain alternatives are not fully analyzed, including a description of the criteria used to eliminate potential alternatives from further study.
- The FEIS should fully describe measures to avoid washes and placement of heliostats in drainages for all alternatives evaluated.

The SDEIS indicates that because the project proponent “did not apply for nor did it hold third party sales contracts for reduced project output at the time of the DEIS, the Reduced Acreage Alternative was not developed and evaluated in detail” (at pg. 4). We commend BLM for reconsidering whether the proposed Condition of Certification BIO-18 could result in equivalent impact reductions as the Reduced Acreage Alternative (at pg. 5). As recommended in our DEIS comments, we recommend that the SDEIS include a full analysis of the Reduced Acreage alternative to provide a comparison of environmental and economic impacts to inform decision making.

Recommendation:

- The FEIS should discuss the changes that have resulted since the DEIS was issued which has resulted in the ability of the project proponent to consider a reduced project output.

In light of the recent decision to separate CEC’s and BLM’s environmental review processes, the FEIS should discuss the resolution procedure should BLM’s FEIS present a preferred alternative that is different than CEC approves through its process.

Recommendation:

- Clarify in the FEIS how BLM's and CEC's now separated alternative selection processes will be reconciled.

The SDEIS does not provide detailed information about the effects of fencing on drainage systems. In this region, storms can be sudden and severe, resulting in flash flooding. Fence design must address hydrologic criteria, as well as security performance criteria. The National Park Service recently published an article<sup>1</sup> on the effects of the international boundary pedestrian fence on drainage systems and infrastructure. We recommend that BLM review this article to ensure that such issues are adequately addressed with this Project.

Recommendation:

- Provide more detailed information about fencing and potential effects of fencing on drainage systems within the FEIS. Ensure that the fencing proposed for this Project will meet appropriate hydrologic performance standards.

*Consideration of Disturbed Site Alternatives*

For this and future projects, EPA continues to recommend the identification of locations that have been previously disturbed or contaminated. The FEIS should discuss any methods or tools BLM has used to identify and compare locations for siting renewable energy facilities, and to ascertain whether or not any disturbed sites are available that would be suitable for the proposed Project. For example, the EPA's Re-Powering America initiative works to identify disturbed and contaminated lands appropriate for renewable energy development. For more information on that initiative, visit <http://www.epa.gov/oswercpa/>.

Recommendations:

- EPA strongly encourages BLM to promote the siting of renewable energy projects on disturbed, degraded, and contaminated sites, before considering large tracts of undisturbed public lands.
- The FEIS should include information regarding all criteria used to evaluate the Project site and alternatives.

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<sup>1</sup> National Park Service, August 2008, Effects of the International Boundary Pedestrian Fence in the Vicinity of Lukeville, Arizona, on Drainage Systems and Infrastructure, Organ Pipe Cactus National Monument, Arizona,