

**Rio Mesa Solar Electric Generating Facility (RMSEGF)
(11-AFC-4)**

**Applicant's General Comments and Comments to Conditions of Certification
on the Preliminary Staff Assessment**

PROJECT ALTERNATIVES

GENERAL COMMENTS

1. The PSA's Alternative Analysis does not to comply with the substantive requirements of CEQA because it arbitrarily and improperly rejects Applicant's Project Objectives. According to the California Supreme Court, the EIR is the heart of CEQA and the alternative analysis is the "core of an EIR." (*Citizens of Goleta Valley v. Board of Supervisors*, 52 Cal.3d 553, 564 (1990) ("*Goleta Valley*").) The basic purpose of the CEQA alternatives analysis is to identify ways in which the objectives sought by the proposed project might be achieved while also avoiding or substantially lessening any of the significant effects of a project. (14 C.C.R. § 15126.6(a)). To achieve this purpose, CEQA mandates that the FSA include a "statement of the objectives *sought by the proposed project*", and to analyze a "reasonable range" of project alternatives that will "feasibly attain" most of those project objectives (14 C.C.R. § 15124(b), 15126.6(a) (emphasis added).) Per the CEQA Guidelines, the statement of objectives sought by the project "should include the *underlying purpose of the project.*" (14 C.C.R. § 15124(b) (emphasis added)).

Instead of analyzing a *reasonable* range of alternatives selected on the basis of the "objectives sought by the project," as CEQA requires, the PSA completely sets them aside. The Alternatives analysis in the PSA eliminates the most significant and fundamental objective sought by the Project - constructing and operating a 750 MW solar thermal facility *using BrightSource Energy Inc.'s proprietary solar power tower technology*. (AFC at p. 1-4).¹ The PSA instead replaces the Project Objectives with CEC Staff objectives, including "construct and operate an approximately 500 megawatt (MW) solar generating facility capable of helping to meet the California Renewable Portfolio Standard requirements." (PSA, p. 6.1-4). The PSA's alternatives analysis thus focuses on a generic set of CEC Staff Objectives, rather than the Project's underlying purpose, as required by CEQA. The result of this legal error is an overly general range of analyzed alternatives that would not meet most of the "objectives sought by the project". This is a clear violation of the "reasonable range" requirement of CEQA Guideline Sections 15124(b) and 15126.6(a).

According to the PSA, Staff replaced the "objectives sought by the project" with Staff's preferred generic objectives in order to "facilitate . . . analysis of a reasonable range of potentially feasible alternatives, including alternatives that may not be preferred by the project applicant." (PSA, p. 6.1-4.) The PSA goes on to assert that Applicant's objectives "unduly restrict staff's analysis."

The "objectives *sought by the project*" cannot be summarily dismissed by characterizing them as Applicant's mere "preference." Rather, the Project Objectives are the entire reason Applicant filed an AFC in this proceeding. Absent these objectives, there is no project. To dismiss the project's important, foundational objectives as mere "preference" is inconsistent with one of the fundamental purposes of CEQA: to identify whether there are alternatives to the project that avoid or substantially lessen any of the significant effects of a project but which would

¹ In addition, the PSA omits key objectives that make the Project commercially feasible – *i.e.*, achieving a commercial on-line date in fourth quarter of 2015/first quarter of 2016 and compliance with power sales agreement provisions.

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feasibly attain *most* of the basic objectives sought by the project. (See, 14 C.C.R. §§ 15124,15126.6 (emphasis added).) Moreover, the PSA does not provide any evidence or analysis to support its naked assertion that Applicant's objectives preclude a reasonable range of alternatives.

Complete rejection of the "objectives sought by the project" is a departure from the Commission's past practice. For example, the PSA rejects the Project Objective to achieve a commercial online date of late 2015/early 2016, yet the Abengoa Staff Assessment included the project objective "[t]o start commercial operation by winter of 2012."² Similarly, the PSA rejects the Project Objective to select "a site with minimal slope, predominately 5 percent slope or less[,] yet the Rice Staff Assessment included the project objective to select a site "in areas of high solarly with ground slope of less than 6 percent."³ Finally, the PSA rejects the Project Objective "[t]o use BrightSource's proprietary technology in another utility-scale project, further proving the technical and economic viability of the technology," yet the Victorville 2 Project Staff Assessment included the similar project objective to "integrate" two specific types of technologies, which "maximizes the synergies between the two technologies to increase project efficiency."⁴ Simply put, there is no principled basis for the PSA's rejection of statement of the objectives sought by RMS SEGF where the same objectives have been acceptable to the Staff in other similarly situated proceedings.

Finally, the "objectives sought by the project" cannot be disregarded or altered on the basis that the objectives are tailored in part to achieve Applicant's business purposes. The California Supreme Court has left no doubt that the business purposes of the project proponent are an appropriate project objective:

Although a lead agency may not give a project's purpose an *artificially* narrow definition, a lead agency may structure its EIR alternatives analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal. For example, if the purpose of the project is to build an oceanfront hotel or waterfront aquarium, a lead agency need not consider inland locations. (*In re Bay Delta Programmatic Env't Impact Report Coordinated Proceedings*, 43 Cal.4th 1143, 1166 (2008) (emphasis added).)

California courts have long recognized that it is perfectly acceptable to base a CEQA alternatives analysis on Applicant's underlying business objectives. (See, e.g., *Citizens of Goleta Valley v. Bd. of Supervisors*, 52 Cal.3d 553, 561 (1990) (holding that inland location alternative need not be analyzed if business objective of project is to build a waterfront hotel); *Save San Francisco Bay Ass'n v. San Francisco Bay Conservation Comm'n*, 10 Cal. App.4th 908, 924 (1992) (holding that inland location alternative need not be analyzed if business objective of project is to build waterfront aquarium); *Sequoyah Hills Homeowners Ass'n v. City of Oakland*, 23 Cal.App.4th 704, 715 (1993) (holding that low density alternative need not be analyzed if business objective is

² Abengoa Mojave Solar Desert Project Commission Decision, Docket No. 09-AFC-5, p. 23 (CEC-800-2010-008-CMF, Sept. 2010). The Commission states a similar project objective for several other large solar energy projects including: Blythe Solar Power Project, Calico Solar Power Project, Genesis Solar Energy Project and Palen Solar Power Project which all include the following project objective: "Complete the review process in a timeframe that would allow the Applicant to start construction or meet the economic performance guidelines by December 31, 2010 to potentially qualify for the 2009 American Recovery Reinvestment Act (ARRA) cash grant in lieu of tax credits for certain renewable energy projects."

³ Rice Solar Energy Project Commission Decision, Docket No. 09-AFC-10, Alternatives Section p. 2 (CEC-800-2010-019 CMF, Dec. 2010).

⁴ Victorville 2 Project, 07-AFC-1, Preliminary Staff Assessment, p. 6-3.

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providing multi-family housing); *Ass'n of Irrigated Residents et al. v. County of Madera*, 107 Cal.App.4th 1383, 133 (2003)(holding that a reduced herd size alternative need not be analyzed if it would not achieve the business objective of proposed dairy expansion).

The foregoing case law makes clear that CEQA does not permit the Alternatives analysis to ignore the “objectives sought by the project” merely because they are tailored to achieve Applicant’s underlying business objectives. Applicant acknowledges that project objectives cannot be so narrowly drawn to foreclose a reasonable range of alternatives to the project. The PSA however rejects Applicant’s project objectives by simply asserting (without demonstrating) that Applicant’s objectives are too narrowly drawn. At minimum, the PSA should provide substantial evidence that Applicant’s objectives foreclose a reasonable range of project alternatives. Without this evidence, the PSA cannot completely discard Applicant’s project objectives and replace them with an overly broad set of objectives proposed by staff. Accordingly, the PSA should be revised to include a reasonable range of alternatives based on the “objectives sought by the proposed project,” as required by CEQA Guidelines Section 15124.

2. The PSA’s analysis of feasibility for the various alternatives is incomplete. CEQA lists several factors that should be considered in the analysis of alternatives. These factors include: “site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site.” (14 C.C.R. § 15126.6(f).) The PSA does not fully or consistently consider these factors. The PSA should include a more consistent discussion of feasibility for each alternative that includes *all* of the aforementioned factors. This is necessary to enable the Staff Assessment to “foster meaningful public participation and informed decision making,” as required by CEQA (Id.)
3. The PSA analyzes a reduced acreage 250 MW alternative, without recognizing that Applicant is already pursuing a reduced acreage alternative that was proposed in the Application for Certification. On July 23, 2012, Applicant filed an “Environmental Enhancement Proposal,” which changed the project description from a three unit project to a two unit project. Removal of RMS 3 has benefits for biological and cultural resources. It also represented a loss of 250 MW of clean and fast starting renewable energy in Southern California. Applicant’s Proposal is consistent with the fundamental objectives of CEQA – i.e., the consideration of alternatives to a proposed project. While Applicant does not contest the PSA’s consideration of a reduced acreage 250 MW alternative, the PSA should also recognize that Applicant is already pursuing a reduced acreage alternative as the new proposed project, consistent with the fundamental objectives of CEQA.

Moreover, as noted in General Comment 2 above, the PSA does not consider many important factors in evaluating the feasibility of an alternative. With respect to the reduced acreage alternative, the PSA should consider the economic viability. Importantly, a single unit site for this particular project is not economically viable and therefore the alternative is infeasible.

4. Throughout Applicant’s comments on the PSA, Applicant has identified revisions to the PSA’s analysis and conclusions. Applicant requests that the revisions proposed in each resource area (especially, biology, cultural, visual, and paleontology) be reviewed by the staff working on the alternatives section such that these revisions will also be reflected in the alternatives analysis.
5. Applicant considers the Sonoran West project site to be substantially equivalent to the RMS project site in terms of general site conditions and availability of infrastructure. The environmental impacts of a project on the Sonoran West site are expected to be similar to the

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impacts of a project on the RMS site. Sonoran West would not meet key project objectives, including the attainment of a commercial online date as required in the Power Purchase Contract with Southern California Edison. While the Sonoran West site cannot meet the primary project objectives of the RMS project, Applicant ultimately intends to pursue both projects and believes that the Commission should consider both projects as potential contributors to the state's renewable energy, greenhouse gas and economic goals.

6. The PSA does not satisfy the requirements of CEQA by allowing for the examination of a range of feasible alternatives sufficient to "permit a reasoned choice." (14 C.C.R. § 15126.6(f).) No "reasoned choice" is possible when the examined alternatives exceed the realm of feasibility for a project proponent. Further, the Commission may exclude from detailed consideration an alternative located outside of its decision making authority as infeasible. (*See, Goleta Valley*, 52 Cal.3d at 575 (upholding agency rejection of alternative outside of agency's permit jurisdiction).) The PV alternative clearly exceeds the realm of feasibility as an alternative to the Project and does not permit "a reasoned choice" among a range of alternatives that can actually be implemented, in contravention of CEQA. The Warren Alquist Act provides the CEC with jurisdiction over thermal power plants 50 MW or greater. Since PV is not a thermal technology, the Commission lacks the jurisdiction to approve a PV alternative.⁵ Moreover, Applicant is not a PV developer. For these reasons, inclusion of PV does not permit a reasoned choice because neither the Commission nor Applicant can pursue the PV alternative. The PV alternative cannot be considered a potentially feasible alternative and should not have been analyzed in detail. The PV alternative should be eliminated from detailed consideration in the FSA.

Notwithstanding these concerns, if staff still analyzes the PV alternative in detail, the PSA should include a substantiated analysis regarding the feasibility of the alternative. First, the PSA does not include important information that is needed to evaluate the feasibility of the PV alternative. In particular, PSA text describes Figure 7 as showing pictures of PV Projects, but only Figures 1-5 were included in the PSA. Second, as noted in comment two above, the feasibility analysis for all of the alternatives fails to foster informed decision making by inconsistently applying the factors listed in the CEQA Guidelines for evaluating feasibility. This is especially problematic in the PSA's discussion of the PV alternative. The feasibility analysis for the PV alternative should be revised to recognize that the alternative is infeasible from an economic viability perspective. Applicant is not a PV developer and would not be able to develop the project site as a PV project. Moreover, since the Commission cannot approve a PV project, the PV alternative would not significantly reduce any of the environmental impacts of the preferred alternative.

7. The PSA does not fully discuss and analyze the grading requirements for solar PV and parabolic trough projects. Impacts from large-scale grading are completely ignored in the alternatives analysis and would be substantially greater than Applicant's proposed development methodology for the heliostat field. All of the Projects listed in Alternatives Table 4 where the technology is defined will utilize mass grading or other earth moving techniques that would completely disrupt the project site and create more permanent impacts with respect to soil and surface water resources. They are as follows:

⁵ In the Ridgecrest Solar Energy Project siting case (09-AFC-09) staff asserted that the Energy Commission does not have jurisdiction over entirely PV Projects. See Staff Brief, available at: http://www.energy.ca.gov/sitingcases/solar_millennium_ridgecrest/documents/2011-07-05_staff_reply_brief.pdf

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- AV Solar Ranch One Project: Site preparation activities for the solar field involve heavy earthwork including mass grading, excavation, and backfill; the total grading related cut and fill estimate of approximately 1,800,000 cubic yards (Final EIR, 2010)
- Desert Sunlight Solar Farm Project: Where feasible, the project will utilize a “disc and roll” technique that uses farm tractors to till the soil over much of the Solar Farm site and then roll it for compaction; all areas will utilize conventional cut and fill grading (Final EIS, 2011)
- Topaz Solar Farm Project: An agricultural tool, such as a harrow or cultipacker, would be used to loosen and smooth the top one to three inches of soil and a smooth steel drum roller, or similar equipment, would be used to bring the top four to six inches of soil to a compaction value of approximately 80 percent (Final EIR, 2011)
- Mt. Signal Solar Farm 1 and Calexico I and II: Site preparations activities for the solar field involve heavy earthwork including grading, excavation, and backfill (Final EIR, 2011)

The grading required at these projects is depicted in Figure *Alternatives 1* attached to these comments. The Ivanpah Solar Electric Generating System is also shown for comparison purposes. The extensive grading required by the PV and parabolic trough projects identified in the PSA would increase impacts to the following non-exclusive list of resource areas: air quality, biological resources, cultural resources, paleontological resources, and soil and surface water resources. In particular, the massive grading destroys all onsite vegetation and would result in 100% disturbance to Waters of the US and Waters of the State of California. The PSA should be revised to consider the significant impacts that would result from the large-scale grading required by solar PV and parabolic trough alternatives, which are avoided under the proposed project.

8. Please replace “foundation” with “insertion” when discussing heliostat pylon installation. The pylons for the heliostats will be inserted into the ground by vibration, and will not require any specialized foundations.

FINDINGS OF FACT

There are no findings of fact listed in this section of the PSA.

PROPOSED CONDITIONS OF CERTIFICATION

No proposed Conditions of Certification are included in the PSA.



AV Solar Ranch One Project, Antelope Valley



Desert Sunlight Solar Farm Project, Chuckwalla Valley



California Valley Solar Ranch Project, Carrizo Plain



Topaz Solar Farm Project, Carrizo Plain



Ivanpah SEGS, Unit 1 (Rio Mesa SEG F Technology)



Ivanpah SEGS, Unit 1, (Rio Mesa SEG F Technology)

SOURCES:
 AV Solar Ranch One, Desert Sunlight Solar Farm Project, and Topaz Solar Farm photos
 from firstsolar.com
 California Valley Solar Ranch photo from www.californiavalleysolar ranch.com
 Ivanpah photos from ivanpahsolar.com

**GRADING COMPARISON BETWEEN RIO MESA SEG F
 TECHNOLOGY AND VARIOUS PV PROJECTS**



NO SCALE

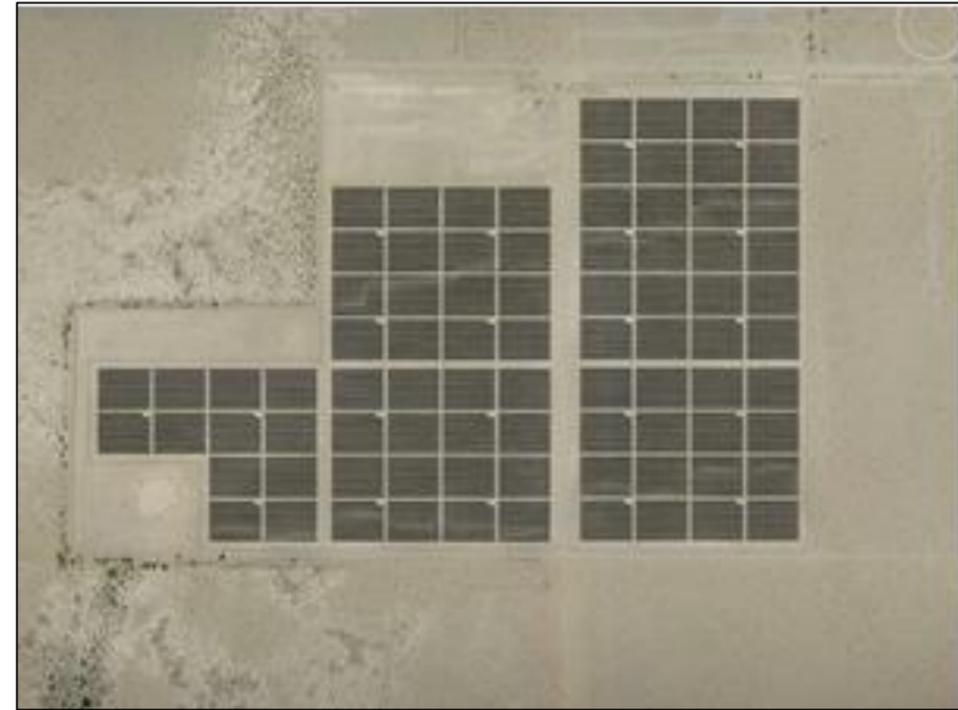
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Blythe Solar Project



Ivanpah SEGS
(Rio Mesa SEGF Technology)



Satellite image from 5000 feet of Blythe Solar Project



Ivanpah SEGS, (Rio Mesa SEGF Technology)



Satellite image from 5000 feet of Ivanpah SEGS, (Rio Mesa SEGF Technology)



Blythe Solar Project

SOURCES:
Blythe Solar Project photos from firstsolar.com
Ivanpah photos from ivanpahsolar.com
Satellite images from google, dated 6/8/12

**DENSITY COMPARISON BETWEEN RIO MESA SEGF
TECHNOLOGY AND TYPICAL PV PROJECT**

URS

NO SCALE

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FIG. NO:

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ALT-2