

OTHER CEQA AND NEPA CONSIDERATIONS

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This section includes discussions of other topics as required by CEQA and/or NEPA, including identification of significant unavoidable adverse impacts, discussion of significant irreversible and irretrievable commitment of resources, and growth-inducing effects.

Significant Unavoidable Adverse Impacts

The environmental impacts of the proposed project are described in the environmental analysis sections of this FSA/DEIS. The analysis has identified impacts that are significant, and cannot be reduced to less than significant levels through the application of mitigation measures. Those impacts which have been determined to be significant and unavoidable are summarized below.

Biological Resources

The Ivanpah Solar Electric Generating System (ISEGS) project would have major impacts to the biological resources of the Ivanpah Valley, significantly affecting many sensitive plant and wildlife species and eliminating a broad expanse of relatively undisturbed Mojave Desert habitat. Approximately 4,073 acres of occupied desert tortoise habitat would be permanently lost and a minimum of 25 desert tortoises would need to be translocated west of the ISEGS project site. Impact avoidance and minimization measures described in staff's analysis and included in the conditions of certification would help reduce impacts to sensitive biological resources. However, compensatory measures are necessary to offset project-related losses to less-than-significant levels.

The ISEGS project site supports a diverse flora including numerous special-status plant species. Eight special-status plant species, only one of which is considered sensitive by the Bureau of Land Management (BLM), would be directly impacted by construction of ISEGS. Energy Commission staff consider impacts to five of these (Mojave milkweed, desert pincushion, nine-awned pappus grass, Parish's club-cholla, and Rusby's desert-mallow) to be significant according to California Environmental Quality Act (CEQA) guidelines because the project would eliminate a substantial portion of their documented occurrences in the state. Depending on the degree of avoidance that the applicant can achieve, Energy Commission staff's proposed avoidance and minimization measures may reduce impacts to three special-status plant species (desert pincushion, nine-awned pappus grass, and Parish's club-cholla) to less-than-significant levels. However, impacts to Mojave milkweed and Rusby's desert-mallow would remain significant in a CEQA context even after implementation of the special-status plant impact avoidance and minimization measures described in Energy Commission staff's proposed conditions of certification.

Land Use

Impacts of the ISEGS project would combine with impacts of present and reasonably foreseeable projects to result in a contribution to cumulative impacts in the Ivanpah Valley area related to land use which would be significant with respect to CEQA as well

as NEPA significance criteria in 40 CFR 1508.27. Impacts of the ISEGS project would also combine with the potential impacts of reasonably foreseeable renewable energy projects in the southern California Mojave desert to result in significant and unmitigable regional cumulative impacts related to land use.

In addition, staff concludes that the project would not conform with applicable goals and policies of the San Bernardino General Plan Conservation and Open Space Elements as follows:

1. Conservation Element Goal D/CO 1, calling for preservation of scenic vistas in the County. Staff found that the project would have adverse effects on scenic vistas.
2. Open Space Element Goal OS 5, calling for the County to maintain and enhance the visual character of scenic routes in the County; and Policy OS 5.2, which states that “Development along scenic corridors will be required to demonstrate through visual analysis that proposed improvements are compatible with the scenic qualities present.” The visual analysis of the project found that it would not be compatible with the scenic qualities present in the viewshed of portions of Highway I-15 designated as a County scenic route.

Visual Resources

BLM and Energy Commission staff have analyzed visual resource-related information pertaining to the proposed Ivanpah Solar Electric Generating System (ISEGS) and conclude that the proposed project would result in a substantial adverse impact to existing scenic resource values as seen from several Key Observation Points in the Ivanpah Valley and Clark Mountains, including:

- The Primm Valley Golf Course
- Middle-ground-distance viewpoints on Highway I-15
- Viewpoints in the Mojave National Preserve on the east face of Clark Mountain
- Viewpoints in the Stateline Wilderness Area, including the Umberci Mine and vicinity

Staff found that with recommended conditions of certification, potentially significant visual impacts at the Primm Valley Golf Course (KOPs 1 and 2) could be mitigated to less than significant levels in the long term. However, staff has concluded that potentially significant visual impacts at the other locations cited above could not be mitigated to less than significant levels and would thus result in significant and unavoidable impacts.

Staff also concludes that the project in combination with foreseeable future projects could have significant unavoidable cumulative visual impacts of two kinds:

1. Cumulative impacts within the immediate project viewshed, essentially comprising foreseeable future projects in the Ivanpah Valley; and
2. Cumulative impacts of foreseeable future solar and other renewable energy projects within the southern California Mojave Desert.

In addition, staff concludes that the project would not conform with applicable goals and policies of the San Bernardino General Plan Conservation and Open Space Elements as described above in Land Use.

Irreversible and Irretrievable Commitment of Resources

Section 15126.2(c) of CEQA requires that CEQA documentation address significant irreversible changes and irretrievable commitments of resources that would be caused by a proposed project. Similarly, 40 CFR 1502.16 of the NEPA regulations requires a discussion of any irreversible or irretrievable commitments of resources which would be involved in the proposed project.

Implementation of the proposed project would result in the consumption of energy as it relates to the fuel needed for construction-related activities. Large amounts of gasoline, diesel, and jet fuel would be required for project construction. Additionally, construction would require the manufacture of new materials, some of which would not be recyclable at the end of the lifetime of the proposed project. The raw materials and energy required for the production of these materials would also result in an irretrievable commitment of natural resources. Operation of the proposed project would not cause a substantial increase in the consumption or use of non-renewable resources.

Implementation of the proposed project would require the loss of approximately 4,073 acres of vegetation and habitat. The loss of this habitat would be long-term, enduring throughout the proposed 50-year lifespan of the facility. Following decommissioning, restoration would be conducted which would involve removal of structures, restoration of topography, and revegetation, all of which would work towards restoration of the original habitat. However, it is likely that restoration of native vegetation would be slow, and the success uncertain. Therefore, the loss of desert tortoise habitat is assumed to be permanent since restoration of vegetation for which they depend for foraging and other factors affecting the quality of the restored habitat are uncertain. As noted above in the discussion of Significant Unavoidable Adverse Impacts to Biological Resources, the ISEGS project site also supports a diverse flora including numerous special-status plant species. Eight special-status plant species, only one of which is considered sensitive by BLM, would be directly impacted by construction of ISEGS. Energy Commission staff consider impacts to five of these (Mojave milkweed, desert pincushion, nine-awned pappus grass, Parish's club-cholla, and Rusby's desert-mallow) to be significant according to California Environmental Quality Act guidelines because the project would eliminate a substantial portion of their documented occurrences in the state. Depending on the degree of avoidance that the applicant can achieve, staff's proposed avoidance and minimization measures may reduce impacts to three of these species (desert pincushion, nine-awned pappus grass, and Parish's club-cholla) to less-than-significant levels. However, impacts to Mojave milkweed and Rusby's desert mallow would remain significant even after implementation of the special-status plant avoidance and minimization measures described in Energy Commission staff's proposed conditions of certification.

The majority of access required for construction and operation of the proposed project would utilize existing public ROWs and access roads. The proposed project would require re-routing the existing Colosseum Road through the construction logistics area,

but the re-routed road would re-connect with the existing road to the west of the facility. Therefore, the project would not significantly affect opportunities for public access..

Construction and operation of the proposed project would require the use of a limited amount of hazardous materials such as fuel, lubricants, and cleaning solvents. All hazardous materials would be stored, handled, and used in accordance with Best Management Practices and applicable, federal, state, and local regulations, including a construction-phase Stormwater Pollution Prevention Plan (SWPPP) and an operational-phase SWPPP. Assuming appropriate implementation of these plans and practices as are recommended in the conditions of certification, potential degradation of the environment due to accidental spills associated with the proposed project's use of hazardous materials would be less than significant.

Visual impacts would be significant and long-term considering the context and intensity of the project effects in general. The context of the project is one directly adjoining a national preserve and two designated wilderness areas, and a land-sailing site of regional or greater importance. Intensity of potential effects involves the unique scenic characteristics of the local landscape as indicated by the national preserve and wilderness designations of portions of the project viewshed; concerns expressed by public commenters to date; and a degree of uncertainty as to the level of discomfort or disability glare from the solar tower receivers; and concern over cumulative visual effects of renewable projects on the southern California Mojave Desert as a whole. The loss of visual quality would be long-term, enduring throughout the proposed 50-year lifespan of the facility. After the end of the project's useful life, it would be decommissioned as described in the Applicant's Draft Closure, Revegetation, and Rehabilitation Plan. The facility would be removed to a depth of three feet below grade, original contours restored, and the site revegetated. However, the removal of the existing facility would leave a very prominent visual impact over the entire site due to the strong color contrast created between graded, disturbed soil areas and undisturbed soil areas in the vicinity of the project site. In addition, revegetation of areas in this desert region are difficult and generally of limited success. Thus, visual recovery from land disturbance of closure and decommissioning would likely occur only over a very long period of time.

Growth-Inducing Effects

Section 15126.2(d) of the CEQA Guidelines requires that CEQA documents address the ways in which a proposed project encourages economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Section 1508.8(b) of NEPA also requires that an EIS discuss growth-inducing impacts of a project. The discussion must address how a proposed project may remove obstacles to growth, or encourage or facilitate other activities that could significantly impact the environment, either individually or cumulatively. Typically, the growth-inducing potential of a proposed project would be considered significant if it fosters growth or a concentration of population above what is assumed in local and regional land use plans, or in projections made by regional planning authorities. Significant growth impacts could also occur if a project adds infrastructure or service capacity which could accommodate growth levels which exceed those permitted by local or regional plans and policies.

The proposed project would employ up to 959 construction personnel and 90 operations personnel. Research shows that construction workers would commute as much as two hours each direction from their communities rather than relocate, and operations workers would commute as much as one hour (EPRI 1982). Staff reviewed the socioeconomics data for counties within the one-hour and two-hour commute ranges, which is within the study area and includes San Bernardino County and Clark County. **SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE Table 3** indicates that a total of 231,000 construction workers are available within the study area. In addition, a total of 90 workers would account for a negligible amount of the total San Bernardino County and Clark County total labor force. As all workers would reside within the study area, no impacts to existing population levels would occur. Because the number of operational workers required represents such a small portion of the local available labor force, no significant impacts to the study area population or employment base would result from proposed project operation.

As discussed in the Introduction to this FSA/DEIS, the primary need for the proposed project is driven by Federal and State requirements regarding the generation of renewable energy. According to the Energy Commission, peak electricity demand within California is projected to increase at a rate of 1.35% per year from 2008 through 2018 (CEC 2007), and therefore, additional generating capacity from new sources will be required. The proposed project is not intended to supply power related to growth for any particular development, either directly or indirectly, and would not result in direct growth-inducing impacts. However, the proposed project could facilitate growth indirectly through the additional increased capacity of electric power that it would make available.