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STATE OF CALIFORNIA
Energy Resources Conservation
And Development Commission

In the Matter of:)
Application for Certification for the)
Ivanpah Solar Electric)
Generating System)
_____)

Docket No. 07-AFC-5

**ENERGY COMMISSION STAFF'S
REPLY BRIEF**

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STATE OF CALIFORNIA
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_____)	

I. BIOLOGICAL RESOURCES MUST BE, AND CAN BE, “FULLY MITIGATED.”

Applicant’s Opening Brief makes several assertions that are either unsupported by the evidentiary record or strongly contradicted by other evidence or the applicable law. For Biological Resources, Applicant asserts that the project site habitat is of low value, that the federal Endangered Species Act (ESA) has identical mitigation requirements as those for the California Endangered Species Act (CESA), and that the California Environmental Quality Act (CEQA) does not provide “rare plant” status to the plants identified by Staff as subject to such protection. The record and applicable law contradict such assertions, as discussed below.

In addition, intervenors Sierra Club and Center for Biological Diversity offer a variety of arguments challenging the sufficiency of the FSA/DEIS biological analysis. These arguments are also addressed.

A. Impacts to the Desert Tortoise from the Project Must be “Fully Mitigated.”

1. The project site is valuable tortoise habitat.

Applicant attempts to discount the value of desert tortoise habitat at the project site as “disturbed and developed,” suggesting that the desert tortoise habitat at the site is of little value. (Appl. Opening Brf., pp. 69-71.) Applicant supports this contention with

repeated reference to the existence of the Primm Golf Course, the casinos across the border in Nevada, existing transmission lines in the vicinity, and I-15. But these past developments have been acknowledged by all parties, and such development occupies a relatively small portion of the Ivanpah Valley tortoise habitat. The U.S. Fish and Wildlife Service (USFWS) has designated tortoise habitat in the Ivanpah Valley part of a “recovery area” for the desert tortoise. (Exh. 706, p. 21.)

Applicant cites the California Public Utility Commission’s 2008 Annual Report (Exh. 72, p. 26), asserting that the project site “received favorable environmental and economic ratings” and was not in a “prohibited” development area according to the Renewable Energy Transmission Initiative zone determinations. (Appl. Opening Brf., p. 69.) An examination of the cited document reveals that there is no reference to the project site at all, either with regard to environmental impacts or economic ratings. This reference to the record is thus mistaken, and the assertion unverified by the evidentiary record.

What the evidentiary record does show—and there was much testimony supporting this point—is that the Ivanpah Valley is rich habitat for tortoise. Staff testified that the project site habitat was “of particularly high quality in terms of species richness and diversity” and “good quality” or “high quality” tortoise habitat. (Exh. 300, pp. 6.2-37, 51; Exh. 305, p. 34.) This evaluation was supported by testimony from Dr. Marlow (01/11/10 TR. 416-420) and Dr. Connor (*id.*, at pp. 433-435), two of the witnesses with the greatest tortoise expertise and personal familiarity with the project site and surroundings. (*Id.*, at pp. 408-409, 424.)

Applicant also makes much of the Category III classification that the Bureau of Land Management (BLM) placed on the project area in the 1994 Northern and Eastern Mojave Desert Management Plan (NEMO), and that the project area has not been designated as “critical habitat” by the USFWS. (App. Opening Brf., pp. 84-85.) Yet this BLM management categorization has very little to do with the past, present, or potential quality of the habitat at the project site. As Dr. Marlow stated in his testimony:

Critical habitat was a federal designation. The process of coming up with the boundary lines for critical habitat started in several small rooms [where] agency and other tortoise biologists started marking on maps. And the final designation was a political process within the Fish and Wildlife Service for what got proposed. Critical habitat was then further reduced as a result of land management actions formalized into management plans So saying that it's not critical habitat doesn't mean a whole lot with respect to the importance of that particular population for recovery . . . **critical habitat is just a management classification.** (01/11/10 Tr., pp. 416-417 [emphasis added].)

Dr. Marlow further testified that formerly prime habitat that has been degraded by roads or other human intrusion can be "recolonized," and that such is necessary to prevent species extinction. (*Id.*, at p. 420.) Tortoise fencing of I-15 would likely be an effective habitat improvement measure by reducing tortoise road mortality. (*Id.*, at p. 461.)

Dr. Connor also testified that the BLM management Category III has nothing to do with the quality of habitat. He testified that the project site area had previously been designated Category I (prime) habitat based on surveys taken in the late 1970s. (01/11/10 RT, p. 432-433.) He further testified that his estimates of tortoise presence indicate that much of the project site and surrounding area has tortoise presence equal to or even above that found in designated "critical habitat" areas nearby. (*Id.*, at pp. 434-435.) Dr. Connor asserts that a Category III designation means merely that BLM has, for whatever reason, excluded such land from its Desert Wildlife Management Areas ("DWMAs"). (Basin Opening Brf., p. 5.) Like Dr. Marlow, Dr. Connor testified that roads tend to de-populate nearby tortoise habitat, but that tortoise fencing of roads such as I-15 "will effectively open up all that habitat to desert tortoise and reduce that issue." (*Id.*, at pp. 438-439.)

Finally, Applicant's argument ignores the fact that the agencies with biological expertise have emphasized the value of the habitat. USFWS proposed in its 1994 Desert Tortoise Recovery Plan that the ISEGS site and its environs be placed within the designated critical habitat for the tortoise, habitat called "DWMAs". (Exh. 706, p. 41.) CDFG has described the ISEGS site as "excellent tortoise habitat." (Exh. 709, p. 3.)

And, although apparently it is not part of the evidentiary record for the proceeding, the Renewable Energy Action Team (REAT) identified the ISEGs site as part of a “conservation opportunity area” with “high biological value,” and with a caution to developers that “renewable energy projects within Conservation Opportunity Areas will likely have higher mitigation ratios because of a higher impact to biological resources, and a longer permit process time.” (Renewable Energy Action Team (REAT) Starting Point Map [available at <http://www.energy.ca.gov/33by2020/documents/index/html>].) REAT is comprised of four agencies: the Energy Commission, CDFG, USFWS, and BLM.

2. For projects that do not involve federally designated “critical habitat,” CESA requirements are more rigorous than those of the federal ESA.

Applicant argues that ESA and CESA are virtually the same. (Appl. Opening Brf., pp. 71-90.) This issue has already been addressed in Staff’s Opening Brief at page 15. Applicant points to many parallels between the two statutes, suggesting that these parallels mean that the statutes have identical application, and that the Commission should thus say that CESA is satisfied by whatever mitigation BLM ultimately requires. (*Ibid.*)

CESA and ESA do have many parallel provisions, but it is incorrect to conclude from this that the statutes require the same mitigation regardless of the circumstances of an individual project. The federal ESA is implemented by the USFWS Biological Opinion, which focuses on whether a project will itself cause “jeopardy to the continued existence of the species,” and whether it will destroy USFWS-designated “critical habitat.” If the Biological Opinion concludes that the project will not have such effect, the project will be subject only to an “incidental take statement” with modest “reasonable and prudent” mitigation measures. (See 6 Manaster & Selmi, California Environmental Law (2009 ed.) Endangered Species Regulation, § 81.14[3][d], pp. 81-81 to 81-89.)

By contrast, CESA requires that the incidental take of state listed species must be “fully mitigated” without regard to whether the habitat destroyed is designated “critical habitat,” and even if the project’s effect will not actually directly jeopardize the continued existence of the species. “Fully mitigated” means that “the measures required to meet this obligation shall be roughly proportional to the extent of the impact of the authorized taking on the species” (Fish & Game Code, § 2081(b)(2)), meaning that the species is not to be adversely affected by the impact of the project, without regard to designated “critical habitat.” This is a far more robust requirement for a project such as ISEGS, which will occupy a huge swath of tortoise habitat that is not designated “critical habitat” by USFWS. In fact, unlike ESA, CESA does not require agencies to distinguish or identify “critical habitat,” but instead provides the goal of protecting all habitats “essential to the continued existence of [endangered and threatened] species.” (6 Manaster & Selmi, *supra*, § 81.51[3], pp. 81-142 to 81-142 [citing Fish & Game Code, § 2053].)

Applicant attempts to conflate ESA and CESA requirements because ESA will require less mitigation for ISEGS. But for ISEGS, which is located outside the boundary of “critical habitat,” state law is more exacting than federal law. Applicant cites *Environmental Protection and Information Center v. Calif. Dept. of Forestry and Fire Protection* (2008) 44 Cal.4th 459, as if that case somehow supports its conflation argument. This Supreme Court case is inapposite, and merely reiterates (as Applicant’s quotes indicate) that mitigation must be proportional to the project’s impacts, and that the directive to maintain the applicant’s objectives “to the greatest extent possible” does “not diminish the extent of a landowner’s obligation under CESA” to provide mitigation “roughly proportional” to the impact. (*Id.*, at pp. 510, 511.)¹

¹ In a separate but adjunct argument, Applicant contends, with no citation to authority, that whatever CESA requires, it cannot be “eight times” the BLM requirement. This argument is speculative (and by its own terms mathematically incorrect), inasmuch as BLM has not yet stated the final cost of its “1:1” requirement. More important, it fails to acknowledge the underlying CESA requirement that impacts from this large project be “fully mitigated” under state law in proportion to the damage to the species taken.

3. Applicant cannot legally qualify for a “consistency determination” under CESA.

Applicant argues that the Energy Commission should merely make a “consistency determination” that it has complied with the federal ESA “take” provisions for desert tortoise. (Appl. Opening Brf., p. 94.) The notion of a “consistency determination” pertains to a streamlining provision that may be available to persons who have previously obtained a federal ESA incidental take permit; it allows DFG to subsequently find that the federal permit requirements are consistent with those that would be required by CESA. (Fish & Game Code, § 2080.1; see 6 Manaster & Selmi, *supra*, § 81.54, p. 81-147.)

However, Applicant cannot possibly achieve such a consistency determination for two reasons. First, Applicant does not already have a federal Section 7 incidental take permit, which is the core precedent requirement of the “consistency determination” process. (*Ibid.*) Second, a consistency determination requires CDFG to determine that the Section 7 permit is consistent with all CESA requirements. (Fish & Game Code, § 2080.1(c).) Here, at the Energy Commission’s evidentiary hearings, CDFG officials have pointedly testified that CESA will require more mitigation than USFWS will require pursuant to the Section 7 ESA permit. Thus, a separate CESA incidental take permit is required as a matter of law. (Fish & Game Code, § 2080.1(c).)

B. Intervenor’s Various Claims that the FSA/DEIS was Insufficient for Desert Tortoise Analysis are Exaggerated and Incorrect.

1. Habitat “fragmentation” has been sufficiently addressed.

Intervenor Center for Biological Diversity (CBD) claims a scattering of environmental document insufficiencies in the areas of project description, project alternatives, and biological impacts from the project, among others. Those that principally pertain to

desert tortoise are addressed here; other contentions are addressed in subsequent sections of this brief.

CBD contends that the FSA failed to address “fragmentation” impacts caused by the project on the desert tortoise. (CBD Opening Brf., p. 19.) In fact, fragmentation has been an issue addressed both in the FSA and in the hearing process. Staff identified fragmentation from the project, in addition to habitat loss and disturbance, a substantial direct impact to desert tortoise (Exh. 300, p. 6.2-51.) In hearing testimony Staff described the significant impacts to desert tortoise populations due to fragmentation, and also discussed the mitigation measures that would be implemented within the Ivanpah Valley to enhance connectivity and reduce desert tortoise impacts from fragmentation to less than significant levels. (Exh. 315; 03/22/10 Tr., p. 81.)

Although the FSA focused more on the value of the habitat and the loss of species, the fragmentation of habitat was addressed. The FSA discusses the issue in terms of “connectivity” of habitat, another term for “fragmentation” caused by development that “breaks up” habitat areas for a species. (Exh. 300, p. 6.2-57.) In a subsequent discussion of “Cumulative Impacts,” habitat fragmentation is also described as a regional impact. (*Id.*, at p. 6.2-67.) Later, in a species-by-species “Summary of Impacts/Mitigation” (Bio Table 7), for the desert tortoise the impacts are described as follows:

Impact: Loss of 4073+ acres of occupied habitat; translocation of an estimated minimum of 25 desert tortoise, resulting in reduced survivorship and reproduction for translocated individuals; **fragmentation and loss of connectivity with surrounding habitat**; increased risk from ravens and other predators; increased road kill hazard from construction and operations traffic; **cumulative impacts to Ivanpah Valley population**” (Exh. 300, p. 6.2-72 [emphasis added].)

The FSA also benefits from a “response to public comments” section, where several comments (including those of CBD and the Sierra Club) raise the “fragmentation of habitat” concern, with Staff response. (Exh. 300, pp. 6.2-77 through 94.) These

comments in the FSA further raise the fragmentation issue, which Staff also addressed (and agreed is an important consideration regarding impact) when it testified at the evidentiary hearings. (01/11/10 RT, pp. 333-336.)

Staff recognized that impacts to desert tortoise within the Ivanpah Valley would be significant due to habitat loss and fragmentation, noting that: “The project, combined with future proposed projects, would also significantly affect a genetically distinct subpopulation of desert tortoise within the Northeastern Mojave Recovery Unit that occurs in the Ivanpah Valley (Murphey et al. 2007, USFWS 2008).” (Exh. 300, p. 6.2-71.) However, while discussing connectivity and fragmentation in the project area as an impact of project, Staff explained that recovery units, while useful as a conservation tool, are not recognized by state and federal law, are not used by USFWS in developing Biological Opinions, and are not the underlying basis for Staff’s determination of significance for affected species. (Exh. 305, p. 23.)

2. “Translocation” of the desert tortoise found on the ISEGS site has been sufficiently addressed.

Both USFWS and CDFG require, as a condition of their respective incidental take permits, that all tortoise at a project site be found and removed to suitable habitat where they have an opportunity to survive. This required relocation of species (called “translocation” by the agencies if the removal is beyond a prescribed distance) is to be accomplished pursuant to an elaborate plan; for the ISEGS project this is called the “translocation plan.” (Exh. 300, p. 6.2-48 to 51.) The translocation plan prescribes with some specificity how desert tortoise are to be found, captured, handled, tested, and relocated. (*Ibid.*) These measures are intended to reduce mortality by requiring that translocation take place when the relocated tortoise have the best opportunity for survival (i.e., ideally in the spring, when temperatures are mild and forage is available), and to ensure that tortoise are handled with appropriate protective measures. (*Ibid.*) Another concern is to test captured tortoise to make sure that any that are sick are not

relocated with ones that are healthy. Such deliberation is intended to reduce stress, predation risk, intraspecies competition, disease, and death. (*Id.*, at p. 6.2-49.)

Translocation plans are typically developed by project applicants, who employ biologists (including tortoise experts) who draft the requirements for such plans. These draft plans are then submitted to the wildlife agencies (USFWS and CDFG), and in this case also to the Energy Commission and BLM, and these agencies all comment on the adequacy of the plan, and suggest further improvements. (*Id.*, at pp. 6.2-49, 50.) At least for the ISEGS case, the USFWS worked with CDFG, BLM, and Staff to develop translocation guidance that was tailored for the Ivanpah project. Applicant produced draft translocation plans that have been subject to both public and agency comment.² The process has produced at least two draft plans and two rounds of agency comments thus far; ultimately, the translocation plan in final form, approved by CDFG and the Energy Commission's staff (as well as BLM and USFWS), will be required by a condition of certification (BIO-9). (*Id.*, at pp. 6.2-50, 51.)

CBD, in a range of generalized and incorrect assertions, states that the FSA failed to "consider the impacts of the tortoises that are moved . . . to the remaining tortoises in the area," and that it failed to consider that translocation may result in the death of tortoise. (CBD Opening Brf., p. 20.) In fact, the FSA provides a thorough discussion of translocation, and of the potentially fatal impacts to tortoise, at the pages cited in the previous paragraph. Potential mortality is addressed, and a quote is included from the Desert Tortoise Recovery Office Scientific Advisory Committee, which states in part:

As such, consensus (if not unanimity) exists among the SAC and other meeting participants that translocation is fraught with long-term uncertainties, notwithstanding recent research showing short-term successes, and should not be considered lightly as a management option.

² At least two of the intervenors, Sierra Club and Defenders of Wildlife, have commented to USFWS on the first two drafts of the Translocation Plan.

The FSA further discusses USFWS requirements for the ISEGS translocation plan, and elsewhere acknowledges high mortality of tortoise as a result of recent translocation efforts at Fort Irwin. (Exh. 300, pp. 6.2-49 and 50, 81, 85.)

CBD also contends that Staff “refused to analyze” the Sierra Club’s I-15 proposal. (CBD Opening Brf., p. 20.) But this claim is clearly incorrect on its face. The I-15 alternative was addressed at length in both the FSA and Staff’s rebuttal testimony, as discussed in Staff’s Opening Brief.

Sierra Club argues that translocation is not “CEQA mitigation” (or, elsewhere, that it is “unproven mitigation”), and goes on for many pages about how translocation cannot mitigate project impacts. (Sierra Club Opening Brf., pp. 6-13, 25-26.) The implication of the brief is that translocation is the heart of agency mitigation. Whether or not translocation (which avoids or reduces the “take” of the subject species) is “mitigation” as that term is defined in CEQA (Cal. Code Regs., tit. 14, 15370), Staff has never treated that requirement as the important element of mitigation; rather, Staff, USFWS, and CDFG regard translocation as a necessary avoidance and minimization measure to avoid take during project construction and operation. Staff has always, and with great elaboration, discussed the need for “3:1” mitigation based on a combination of extensive habitat improvements on BLM land coupled with extensive habitat purchases of private land that is good tortoise habitat, to be preserved in perpetuity. In this context Sierra Club’s preoccupation with whether translocation is CEQA mitigation is a curious distraction.

In another source of confusion, Sierra Club also argues at length that “in lieu” habitat mitigation (i.e., mitigation provided programmatically based on a fee formula) is not sufficient to satisfy CEQA, and misstates Staff’s FSA mitigation recommendation, stating that “the FSA recommends that the Applicant be required to fund an in-lieu fee program for compensatory mitigation for significant Project impacts on biological resources.” (Sierra Club Opening Brf., p. 11.) Sierra Club should know that Staff has not recommended “in lieu” programmatic mitigation, but is instead proposing direct

mitigation for project impacts, as described at some length in the FSA and required by condition BIO-17. While Staff noted in rebuttal testimony (Exh. 305, p. 20) that “in lieu” mitigation may conceivably be allowed if it becomes programmatically available before the project is licensed, Staff believes that such could only be allowed to the extent the “in lieu” fee payment could be correlated to the measure of the impact, with flexibility for “truing up” payments should mitigation costs be underestimated. Such would be required to comply with both CEQA and CESA.

3. Impacts to Bighorn Sheep and birds were sufficiently addressed.

CBD contends that the FSA did not sufficiently consider the impacts to Bighorn Sheep. (CBD Opening Brf., pp. 21-23.) This issue has been addressed in Staff’s Opening Brief. In fact, Staff considered the possibility of impacts to the sheep starting with the initial scoping meetings on the FSA/DEIS. The sheep inhabit the nearby Clark Mountains, and prefers rocky slopes. (*Ibid.*) There is movement between mountain ranges. (*Ibid.*) The species was documented in the vicinity of the ISEGS site in 1986, when approximately 150 sheep were recorded approximately three miles west and northwest of the site in the Clark Mountains. (*Ibid.*) There are no other studies confirming sheep presence, although the FSA states that it is “likely” that the sheep use the area for occasional foraging habitat. (*Ibid.*) Staff thus concluded that there is no direct impact to the sheep, but that there is a regional cumulative impact from the project because of loss of forage. (*Id.*, at p.6.2-46.) FSA condition BIO-19 requires mitigation to address that impact.

CBD’s witness testified that additional surveys could have been conducted to further determine whether and to what extent the sheep use the ISEGS project area. (CBD Opening Brf., p. 22.) Certainly it is always true that further studies could be done, and having more information is always preferable to having less. However, the FSA currently contains a sufficient degree of analysis to allow the decision-maker to make

intelligent decisions, as required by the CEQA Guidelines. (Cal. Code Regs., tit. 14, § 15151.)

CBD also contends that the FSA failed to adequately discuss impacts to birds. (CBD Opening Brf., pp. 23-24.) The FSA in fact includes a list of all “special status” birds that may inhabit or likely visit the ISEGS site for foraging. (Exh. 300, p. 6.2-17 and 18.) Impacts to such species is also discussed fully. (*Id.*, at pp. 6.2-22 to 25.) Although none of these birds are either state or federally listed, they have been designated “species of special concern” (CDFG’s term), or “Birds of Conservation Concern” (USFWS’ term), by the agencies that are charged with protecting such resources, or “sensitive species” by BLM. (*Id.*, at p. 6.2-18.) Of greatest note are the golden eagle, which has “fully protected” status in California,³ and the burrowing owl, which is a state “species of special concern” due to “declining population levels, limited ranges, and/or continuing threats [that make] them vulnerable to extinction.” (*Ibid.*) Other migratory birds are also listed and discussed, and some have actually been seen at the ISEGS site. (*Ibid.*)

These birds, including their presence or possible presence, are described (Exh. 300, pp. 6.2-22 through 24), impacts are described (*id.*, at pp. 6.2-44 through 45), and mitigation measures discussed and proposed. (*Id.*, at p. 6.2-45.) Impacts identified included loss of breeding and foraging habitat, fragmentation of habitat, and increased levels of noise disturbance. These were identified as cumulative impacts that require mitigation. (*Ibid.*) The mitigation is in conditions BIO-11 (impact avoidance and best management practices), BIO-15 (pre-construction nest surveys), and BIO 16 (burrowing owl avoidance and impact minimization measures). The mitigation measures “would avoid direct impacts to nests, eggs, or young of migratory birds, and would minimize the impacts of construction to nesting birds to less than significant.” (*Ibid.*) Impacts to birds from lighting, collisions, electrocution, noise, and potential burning were also addressed.

³ State “fully protected” species “may not be taken or possessed at any time” and are not subject to the issuance of take permits. (Fish & Game Code, § 3511(g).)

(Exh. 300, pp. 6.2-64 through 65.) This analysis and the associated requirements reflect a good faith attempt to evaluate and address impacts, and are not, as CBD puts it, “conclusory.”

CBD raises the issue of the potential for birds being burned by reflected mirror light. (CBD Opening Brf., p. 23.) The brief states that “[t]he FSA notes this only in passing and without analysis dismisses this significant impact based on a mis-reading of the cited literature,” and calls bird burning a “significant impact.” (*Ibid.*)

This criticism is unfair and incorrectly characterizes both the FSA and the study CBD has cited. Staff considered the cited document, a six-page study which is apparently the only study that exists regarding the impacts of ISEGS-type technology on avian mortality. The study reported very few birds killed by burns, and found that most mortality (81 percent) occurred from collision with mirrors and other structures. (Exh. 912, p. 2 [paginated p. 136 in the Journal of Field Ornithology, spring 1986].) Staff correctly characterized the study’s discussion that “creosote habitat is usually only sparsely inhabited by birds,” and that the birds in the vicinity of the Daggett project appeared to have been attracted by “man-made lakes” and irrigated agricultural fields (*id.*, at p. 3 [138]), conditions that the study notes are rare in the Mojave (*ibid.*), and that do not characterize the ISEGS site. (Exh. 300, p. 6.2-65.) The report concluded that “the impact of the facility on birds after construction appears minimal.” (Exh. 912., p. 5.) Even so, it rightfully cautioned against extrapolating these results for similar larger facilities, and recommended avoiding siting of such near rare, endangered, or threatened species. (*Ibid.*)

Staff agrees with CBD that a bird mortality monitoring program would be appropriate, although tying such monitoring to a condition that could periodically shut down the facility — as CBD proposes (CBD Opening Brf., p. 24) — would almost certainly make the project infeasible.

CBD also states that the impact to the golden eagle is significant and a “take.” (CBD Opening Brf., p. 25.) These legal conclusions are not supported by the evidence or applicable law. The FSA describes the impact to the golden eagle as a cumulative impact involving loss of foraging impact. (Exh. 300, p. 6.2-45, 72.) There is some risk of electrocution from transmission lines, but such are required by BLM to be “raptor safe,” and the FSA concludes that this threat is not substantial. (*Id.*, at p. 65.) Another risk, collisions with structures, is mitigated with specific lighting requirements. (*Ibid.*) Staff testified that BLM data indicates that the nearest golden eagle nest is roughly seven miles west of the Ivanpah site in the Clark Mountains, not in close proximity to the ISEGS site. (Exh. 305, p. 20.) The other known nest is eight miles south of the project. (*Ibid.*) “Staff has concluded that the golden eagle nests . . . are sufficiently distant Staff has also concluded that for a species with a breeding season home range of 20-33 km² (Kochert et al 2002) the loss of approximately 4,000 acres of foraging habitat is not likely to significantly affect the nesting success of these golden eagles.” (*Ibid.*) Applicant likewise testified that the impacts are too distant, and the amount of forage too small, for the impact to be significant. (Exh. 85, p. B-3.) A relatively limited impact on broad foraging territory of a distant eagle does not a “take” make. (See 16 U.S.C.A. § 668ee [eagle “take” defined as “to pursue, hunt, shoot, capture, collect, or kill, or to attempt” such acts].)

CBD also speculates that rare insects or other unidentified rare species may occur on or transit the site. (CBD Opening Brf., p. 26.) Such speculation is not substantial evidence that can support a finding that an impact is significant. (Cal. Code Regs., tit. 14, §15385.)

CBD similarly posits (with no reference to the evidentiary record) that “rerouting ORV lanes around the proposed project footprint” was not analyzed for its increase in traffic, increased human presence, or increased noise, all of which would presumably affect tortoise. (CBD Opening Brf., pp. 19-20.) But no evidence supports a finding of such impacts. In fact, Staff’s recommended conditions (BIO-11) impose traffic minimization measures that include confining vehicular traffic to existing routes, prohibiting cross-

country vehicle use, and imposing speed limits on local roads to reduce danger to tortoise. (Exh. 300, p. 6.2-59.)

4. CDFG and Staff are in agreement about CESA mitigation, and that such is feasible.

Intervenor California Native Plant Society (CNPS) contends that CDFG's views on CESA mitigation have not been properly observed in the FSA. (CNPS Opening Brf., p. 6.) This unsupported contention is belied by the testimony of CDFG at the evidentiary hearings, which attested to CDFG's consultation, involvement, and support for the FSA's treatment of CESA issues, including proposed mitigation.

Applicant contends that there is "no indication whatsoever" that a mitigation requirement to purchase up to 8,000 acres of habitat for tortoise is feasible. (Appl. Opening Brf., p. 92.) Yet that evidence, or at least part of it, came in testimony response to Applicant's cross-examination of Staff witnesses. That testimony was that Staff and CDFG have consulted with BLM and determined that offset purchases for many such projects is feasible, and that there is up to 1.2 million acres of habitat in the California Mojave that would be suitable for purchase and preservation as tortoise habitat. (01/11/10 Rt., pp. 388-389, 397-399.) This number is confirmed from the USFWS Desert Tortoise Recovery plan. (*Id.*, at p. 399.) CDFG testified in accord. (*Id.*, at pp. 327-329.) Applicant is correct that offset purchases are more limited in the Ivanpah Valley vicinity, but nothing in BIO-17 would restrict such offset purchases and preservation to that area.

C. The CDFG "Incidental Take" Permit is Properly Included in the Energy Commission's Pre-emptive "in lieu" Permit, as Required by Public Resource Code Section 25500.

The Warren-Alquist Act's requirement for a "one-stop" permit process for power plants is embodied in Public Resource Code Section 25500:

In accordance with the provisions of this division, the [Energy Commission] shall have the exclusive power to certify all sites and related facilities in the

state The issuance of a certificate by the commission shall be in lieu of any permit, certificate, or similar document required by any state, local, or regional agency, or federal agency to the extent permitted by federal law . . . and shall supersede any applicable statute, ordinance, or regulation of any state, local, or regional agency

Thus, the clear intent of this statute is that other agencies' permits and permit requirements be consolidated in the Energy Commission's project siting permit.

CBD argues to the contrary that CDFG must issue the incidental take permit, because the applicable Fish and Game Code sections say that "the department" shall take such action. (CBD Opening Brf., pp. 62-65.) CBD employs two principles of statutory interpretation: first, that a statute that is clear on its face need not be interpreted; second, that a more specific statute controls over a more general one. (*Ibid.*) However, in making these arguments CBD has turned these principles on their heads.

The Energy Commission statute is clear on its face: the Energy Commission permit is "in lieu" of all other state, local, and federal permits to the extent permitted by federal law, and this provision "supersedes" all other applicable statutes or regulations. Moreover, the Energy Commission statute is the more specific statute, inasmuch as *it applies only to thermal power plant sites and related facilities*, carving this exception out of the larger universe of permits that other state and local agencies typically issue.

CBD's upside-down "more specific statute" interpretation would render Section 25500 a nullity, as all California state and local agencies that issue permits have statutory (or ordinance) provisions that require them to do so. Calling these provisions "more specific" would mean that no agency permit function is subsumed in the Energy Commission's in lieu permit, and Section 25500 would "supercede" nothing at all.

Moreover, the California Supreme Court has stated that "the principle that a specific statute prevails over a general one applies only when the two sections cannot be reconciled." (*Garcia v. McCutchen* (1997) 16 Cal.4th 469, 478.) Rather, where statutes

can reasonably be harmonized, concurrent effect is given to both. (*Ibid.*) Courts strongly disfavor interpretations that nullify statutes that can otherwise be harmonized, and here the more specific statute (requiring consolidation of all permits for power plants) can easily be harmonized with the general requirement for incidental take permits.

CBD correctly states that the Energy Commission has not, until the most recent years, attempted to consolidate the take permit into its in lieu power plant permit. (CBD Opening Brf., p. 65.) However, after lengthy discussions with CDFG, the Energy Commission has begun to do so for four reasons. First, such is the clear, unambiguous requirement of Section 25500.

Second, failure to place such requirements in the Energy Commission's singular permit can be (and at times has been) used to claim that subsequent requirements in a CDFG take permit are not enforceable. This is because the Energy Commission has no ability to enforce provisions not included in its permit, and (because of the unique statutory review provisions for power plant licenses in the Warren-Alquist Act) CDFG does not have authority or ability to go to court to enforce separate additional permit requirements on a power plant. (See Pub. Resource Code, § 25531(c) ["Subject to the right of judicial review of decisions of the Commission, no court in this state has jurisdiction to hear or determine any case or controversy concerning any matter which was, or could have been, determined in a proceeding before the commission, or to stop or delay the construction or operation of any thermal power plant except to enforce compliance with the provisions of a decision by the commission."].) Thus, the only manner in which the Fish and Game Code's take requirements can clearly be enforced is through their inclusion in the Energy Commission's in lieu permit.

Third, the consolidation of the take permit into the Energy Commission license eliminates the need to pursue the take permit post-licensing, in a separate permit process that replays the issues that have already been discussed and addressed in the Energy Commission's licensing proceeding. Consolidation has the ancillary advantage

of avoiding potential conflict between the two permits, the potential confusion over which permit would then control the project, uncertainty regarding how such confusion could be sorted out, and potential separate judicial review of the take permit.

Fourth, the urgency for such administrative process streamlining is provided by the Governor's Executive Order requiring that CDFG and the Energy Commission to "immediately create a "one-stop" process for permitting renewable energy generation power plants." (Governor's Exec. Order No. S-14-08 (Nov. 17, 2008).) The purpose of the Order is to facilitate the siting of renewable energy facilities that contribute to the state's Renewable Portfolio Standard goals by reducing "permit processing times by at least 50%." (*Ibid.*) Notably, the Order's fundamental requirement for a "one stop" process is essentially a directive to do what the law already requires, and Staff was already working with CDFG in the Ivanpah case to implement a consolidated permit when the Order was issued.

— The Streambed Alteration Agreement requirements are properly consolidated in the Energy Commission permit.

Applicant spends many pages arguing that the Streambed Alteration Agreement provisions in the Fish and Game Code might better be separately enforced. (Appl. Opening Brf., pp. 59-67.) It incorrectly argues that no such requirements can be required before a prior CEQA process (such as the power plant licensing process) has already concluded. (*Id.*, at p. 63.) This misreads the statute: nothing in Fish and Game Code section 1603 requires (as Applicant states) a final agency decision before agreement terms can be issued; rather, Section 1603(a)(1)(D) merely requires that an application for an agreement include, among other things, "a copy of any document prepared pursuant to [CEQA]."

Thus, where another agency has already developed environmental documents for a project, they are required to be part of any submittal to CDFG for a Streambed Alteration Agreement. This provision has no application to the Energy Commission's licensing process, where CDFG is working with the Staff to develop the CEQA

document itself. Notably, nothing in Section 1603 requires either a final decision, a final environmental document, nor, for that matter, an environmental document at all if it has not already been prepared.

Applicant further argues, with virtually no support, that impacts to the riparian streambeds at the Ivanpah site are “overstated,” and that the BIO-20 requirements that implement the streambed alteration requirements “impose double mitigation for the desert tortoise.” (Appl. Opening Brf., pp. 64-67.) Applicant contends that the project’s “low impact development design” prevents damage to riparian resources, and thus there is no need to mitigate. (*Id.*, at pp. 65-66.) However, Staff’s testimony is that all 198 acres⁴ of state waters on the Ivanpah project site would be vulnerable to soil and vegetation disturbance as a result of road building, heliostat installation and other construction, as well as ongoing vegetation and weed control. (Exh. 300, p. 6.2-63.) These alluvial and ephemeral streams currently support undisturbed native plant communities and are valuable wildlife habitat and movement corridors. (*Ibid.*)

BIO-20 does require that 198 acres of desert riparian habitat be purchased (hardly “double mitigation”), but this 198 acre requirement can be met by the overall 3:1 desert tortoise habitat offset requirements of BIO-17 so long as 198 acres match the specific requirements of BIO-20. In other words, the additional purchases pursuant to Streambed Alteration Agreement requirements may be satisfied by BIO-17 habitat purchases, with no additional acreage required to be purchased. The requirements in BIO-20 were developed by Staff in consultation with CDFG and the Lahontan Water Board to compensate for riparian impacts to “waters of the state” (and the wildlife habitat such waters contain) in the Ivanpah alluvial fan streambeds.

The inclusion of Streambed Alteration Agreement requirements in the Energy Commission’s “one-stop” permit is consistent with Public Resources Code Section

⁴ The determination of 198 acres of “waters of the state” in alluvial/ephemeral streams was determined by Applicant surveys, subsequently confirmed by Staff. (Exh. 65, “Botany” [unpaginated].)

25500, and required by the Governor's Executive Order S-14-08. Consolidation of all permit requirements in the Energy Commission permit provides earlier permit finality, consistency in agency requirements, and expedited judicial review. Applicant should be supporting such consolidation rather than resisting it.

D. Staff's Rare Plant Analysis is both Correct and Legally Sufficient.

1. Applicant now proposes a definition of "rare" that is inconsistent with CEQA, inconsistent with its prior testimony, and tainted by inaccuracies.

Applicant correctly states that none of the species discussed in the FSA are listed under the federal ESA or state CESA, but also correctly notes that the CEQA definition of "rare" may include plants beyond those officially listed. (Appl. Opening Brf., p. 112.) CEQA states that plants and animals are rare, for CEQA purposes, if, among other reasons:

Although not currently threatened with extinction, the species is *existing in such small numbers throughout all or a significant portion* of its range that it may become endangered if its environment worsens (Cal. Code Regs., tit. 14, § 15380(b) [as referenced by § 15380(d)].)

As Staff has testified, and California Native Plant Society pointed out in its brief, the Ivanpah Valley generally, and the ISEGS site in particular, support an extraordinary diversity of succulents (cacti and yuccas) and other native desert flora, a number of which are extremely limited in their distribution and have been listed by the California Native Plant Society (CNPS) as rare, threatened, or endangered in California. (Exh. 300, pp. 6.2-38 to 39.) Applicant states that using the term "rare" for such plants is a "misnomer"; Applicant is incorrect with regard to several such species.

Applicant's extremely constricted definition of "rare" plants expressed in Applicant's Opening Brief is that of all the plants discussed in testimony, only a single plant—Rusby's desert mallow—is in fact rare. Rusby's mallow is a plant beyond dispute—a CNPS "List 1-B ("rare threatened and endangered in California and elsewhere") for rare

categorization. However, Applicant then indiscriminately eliminates all “List 2” plants from being rare—a completely arbitrary “de-listing” that contradicts its AFC testimony.

In the AFC Applicant effectively acknowledged that CNPS “List 2” plants are typically classified as “rare” for CEQA purposes. Two such plants, Parish’s club cholla (CNPS list 2.2—“rare, threatened, or endangered in California but more common elsewhere”/“Fairly endangered in California”) and desert pincushion (CNPS list 2.1—“rare, threatened, or endangered in California, but more common elsewhere”/“Seriously endangered in California”) are identified as “List 2” plants with the acknowledgement that “these special-status species meet the definition of a rare plant pursuant to CEQA . . . Impacts to these special status plants are significant and mitigation is required.” (Exhibit 1 [AFC, Vol. 1], p. 5.2-45.)⁵ Apparently applicant did not discover the other “List 2” species until the following year, in spring surveys that were not based on drought year information.

What the AFC indicates is that Applicant correctly considered “List 2” species to be rare in the AFC, which it provided as testimony. It now seeks to push a more constrained definition of “rare,” buttressed by incorrect data attributed to the CNPS listings. For example, for both Parish’s club cholla and nine-awned pappus grass, Applicant’s Opening Brief asserts that the CNPS list numbers describe such plants as “Not very endangered in California”; in fact, the correct CNPS numbers indicate that both species are categorized as “Fairly endangered in California.” (See Appendix, corrected CNPS table.)

⁵ For reasons Staff cannot explain, Applicant’s Opening Brief contains Incorrect data in both the CNPS “list status” data presented at pages 120-121 of its Opening Brief, and the California Natural Diversity Database (CNDDDB) chart that it provides on p. 122 of the Opening Brief. The Brief errors indicate lower levels of threat to four of the species listed—four of the five plants that Staff has disagreement with Applicant concerning whether such are “rare” (Mojave milkweed, desert pincushion, Parish’s club cholla, and nine-awned pappus grass). This brief will append a corrected CNPS list, and a corrected CNDDDB list, that corrects the mistakes in Applicant’s list. The other “List 2” rare plants not discussed in the AFC (nine-awned pappus grass, and small-flowered androstephium) had not been discovered when the AFC was filed (because of the drought year), and were discovered in the following spring survey that applicant conducted. (Exh. 300, pp. 6.2-19, 20, 21.)

Similarly, Applicant's Opening Brief fails to include CNDDDB information indicating that both desert pincushion and Mojave milkweed are "Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep [population] declines making it especially vulnerable to extirpation from the state/province." (Appendix; this information is available at <http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/SPPlants.pdf>.) Likewise, it fails to include CNDDDB information for Parish's club cholla and nine-awned pappus grass that these species are "imperiled in the state because of rarity due to restricted range, very few populations (often 20 or fewer), steep declines [in population], or other factors making it very vulnerable to extirpation from the nation or state/province."

These and other errors illustrate why it is best for witnesses to provide testimony subject to cross examination, rather than have counsel provide mistaken and incomplete testimony in their briefs. Applicant's Opening Brief clearly does not fully understand, or at least neglects to explain, other critical information in the CNDDDB ranking. For instance, while the Opening Brief provides the "G" or "global" ranking, it neglects to include the critical "T" rank for subspecies. This omission leads to serious misinterpretation by Applicant, as it concludes that Rusby's desert-mallow is "not rare" based on the "G" ranking, but fails to appreciate that this particular subspecies ("T" ranking) is globally imperiled. In fact, it is actually both state and globally imperiled, as its entire distribution (as explained by Staff testimony) is entirely in California.

Staff testimony accurately described the rarity and limited distribution of Rusby's desert-mallow, Parish's club cholla, nine-awned pappus grass, Mojave milkweed, and desert pincushion. The ISEGS site is "very special" and a "rich and diverse site" for plants. (01/12/10 Tr., p. 157.) All the plants discussed above (except Rusby's desert-mallow, which is "List 1B") are "List 2" species that are considered "rare, threatened, or endangered in California but more common elsewhere." (*ibid.*) For instance, the Mojave milkweed only has 22 occurrences ever in the CNDDDB database, most of which are in the Ivanpah Valley, and some of which have not been relocated for a great many years. (*Id.*, at p. 160.) These species have a very limited distribution within California.

(See Exh. 305, Rebuttal Fig. 8 and 9 [depicting the very limited range within the state for these species, compared to desert tortoise].)

Applicant argues strenuously that the range of the species within the state is not important, citing a 1975 Attorney General Opinion which merely concludes that CEQA requires analysis of “the whole of a project” to include elements of the project that are outside the state. (58 Ops. Atty. Gen. 614, 616 [1975].) The opinion is not on point, and irrelevant inasmuch as one of the species (Rusby’s desert-mallow) is found only in California (Exh. 300, p. 6.2-21), and there is no record evidence indicating that any of the other species are so abundant outside of the state that they should not be considered rare.

Applicant also argues that it has provided an “avoidance plan” that will successfully mitigate for rare species. (Appl. Opening Brf., p. 123.) The inadequacy of the on-site avoidance plan was discussed and testified to at hearing, and has already been discussed in Staff’s Opening Brief. Staff believes that this plan simply would not be adequate to prevent habitat fragmentation and disturbance, inasmuch as it largely involves creating small “halos” where one or more plants would (one hopes) not be damaged or disturbed. Impacts from shading, habitat fragmentation, altered hydrology, invasions from non-native weeds, and other indirect effects within the heliostat fields would harm plants located within protected “halos.” (See Exh. 305, pp. 27-28.) Staff has outlined how it believes impacts to rare plants can be mitigated, and included revised mitigation that would accomplish such, in its supplementary testimony filed for the March 22, 2010, hearing. (Exh. 315, pp. 4-1 to 4-20.)

2. Fall surveys would be useful, but the FSA analysis is thorough and legally sufficient.

CBD and other intervenors argue that the absence of fall surveys for rare plants makes the FSA insufficient. (See, e.g., CBD Opening Brf., p. 28.) The contention appears to

be that not all rare plants can be discovered in spring surveys, and that fall surveys are important to augment previous surveys.

More survey information, whether for rare plants or endangered animals, is always preferable when doing environmental analysis for CEQA, NEPA, or the federal and state endangered species acts. Even so, the rare plant surveys at the ISEGS site were extensive, highly professional, covered multiple years, and are by any standard legally sufficient CEQA analysis.

Protocol level surveys (extremely thorough surveys that meet USFWS guidelines, as well as recommendations from CDFG) for all special status plants were conducted in the spring and early summer of 2007 and again in the spring of 2008. (Exh. 65, “Botany” [unpaginated].) In addition, “reconnaissance level” surveys were conducted for a one-mile buffer area around the ISEGS site. (*Ibid.*) The protocol level surveys included “reference site visits” to known rare plant areas “to determine the progress of the growing season and to orient key team members to characteristics necessary for correct identification.” (*Ibid.*) “In a few cases, reference population checks were performed in October and November of 2007, and April and May of 2008, outside of the main field survey efforts, to confirm species identifications or view known populations of special status plants in the project vicinity.” (*Ibid.*) Vegetation types in the area were classified, invasive weeds were surveyed, and the entire effort resulted in a 2008 Rare Plant Survey Report that identified no fewer than nine “special status” plants on the site, five of which the Staff subsequently concluded are “rare” for CEQA analysis. (*Ibid.*)

Applicant’s protocol level surveys were of the highest professional quality and met all applicable guidelines (including Energy Commission data adequacy requirements) that applied when the surveys were conducted. (Exh. 85, p. B-5.) They were planned and conducted by experienced professional biologists. (*Ibid.*) Perhaps because of this, the surveys were extremely productive: the surveys located and mapped eight species of rare plants previously unknown in the Ivanpah Valley. (*Ibid.*)

Staff has acknowledged the usefulness of additional survey work. Ideally, environmental documents for desert projects would have survey data for all seasons for several years, as rare plant seeds can remain dormant for years during extended droughts before flowering after a wet season. But Applicant's survey work covered two years and was very thorough, given the huge area required to have protocol surveys. The survey data was entirely sufficient for reviewing agencies to determine that the project's impacts on rare plants are significant, that avoidance and other mitigation are required, and to "allow decision makers to make intelligent judgments" regarding the project. (Cal. Code Regs., tit. 14, § 15151.) CEQA does not require agencies to "conduct every test and perform all research, study, and experimentation recommended to it by interested parties." (*Society for California Archaeology v. County of Butte* (1977) 65 Cal.App.3d 832, 838.) "Indeed, a project opponent or reviewing court can always imagine some additional study or analysis that might provide helpful information," but "[i]t is not for them to design the EIR." (*Laurel Heights Improvement Ass. v. Regents of the Univ. of Calif.* (1988) 47 Cal.3d 376, 415.)

The survey work for the rare plant analysis was thorough and legally sufficient.

II. TRAFFIC IMPACTS ARE CUMULATIVELY CONSIDERABLE.

The conflict between Staff and applicant regarding traffic impacts is a narrow one: whether the additional traffic impacts from the project are "cumulatively considerable," and thus a significant cumulative impact. The FSA concludes that they are; Applicant demurs.

The cumulatively considerable impact would be from the construction workforce headed north from the project site on Friday afternoons, when considered cumulatively with other projects under construction and past, present, and future projects. (12/14/09 Tr., pp. 70-71, 88.) This is because project construction is projected to generate 174 northbound vehicle trips, which will be added to a freeway that is Level of Service F ("stop and go" traffic) headed north toward Las Vegas. (*Id.*, at pp. 88, 104-105.) The

freeway is currently carrying over 40,000 cars on Friday evenings, when its carrying capacity is 36,000—hence the Level of Service F. (*Id.*, at p. 105.)

Applicant argues that the cumulative impact is less than significant because it is small and temporary. (Appl. Opening Brf., pp. 160-161.) But this is often the nature of cumulative impacts, and the significance of such often turns on the critical nature of existing conditions (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 718-721), which are here severe. Projects that may add to the cumulative impact include the Desert Express train project and the Las Vegas Supplemental Airport, among others. (Exh. 300, p. 6.10-27.)

Applicant argues that CEQA makes the Staff conclusion regarding cumulative significance inappropriate, quoting CEQA Guideline Section 15064(h)(4): “The mere existence of significant cumulative effects caused by other projects *alone* shall not constitute substantial evidence that the proposed project’s incremental effects are cumulatively considerable.” (Appl. Opening Brf., p.161 [emphasis added].) The quoted Guideline section is inapplicable on its face: the cumulative impact Staff has identified is not caused “by other projects alone,” but instead by the ISEG’s contribution of a projected 174 vehicles to an existing overloaded freeway, in addition to potentially substantial additional added traffic from other projects that may be under construction during the same timeframe.

III. THE PROJECT’S IMPACTS ON VISUAL RESOURCES ARE SIGNIFICANT BOTH DIRECTLY AND CUMULATIVELY.

Any person familiar with the Ivanpah Valley would probably find it remarkable that anyone would contend that a project as large and dramatic as ISEGS would not have a significant impact on visual resources. Indeed, it is difficult to conceive of how a project could have a more profound effect. The project is six square miles in size, and visible from many vantage points that are higher ground, including the interstate highway and nearby wilderness areas. It will have “power towers” as tall as sky scrapers, far higher

than nearby geological features such as Metamorphic Hill, and these towers will interfere with views of Clark Mountain and more distant geographic features. The top focal point of the power towers (more than 400 feet above the ground) will themselves emit a very bright glow that was described as an intrusive visual “nuisance” by Staff’s lighting expert. At night the power tower aviation warning lights will introduce a high, flashing new light source to this relatively dark night environment. This rather discordant view will be seen by tens of thousands of people every day, most from the interstate freeway, but also by backroad and backcountry recreational users. On top of this is the considerable construction that must occur when ISEGS is built, with the attendant dust, disturbance, and construction equipment onsite that will be necessary to put together the project.

Against Staff’s logical conclusion of impact significance, Applicant has presented an array of nitpicks about such things as the exact KOP positions for photo simulations, or exact wilderness area boundaries, complimented by risible arguments that people headed north on the interstate are not sensitive viewers because their destination is Las Vegas, and that they cannot turn their heads to see the landscape in any case. It has also presented testimony that says a project cannot be a cumulative impact if it is not also a direct one, that ISEGS is consistent with County LORS even though it did not consult the County, that a vista cannot be “scenic” without a traffic pullout, and that cumulative visual impact analysis must be confined to the very same geographic range that is used for the direct impact analysis. Staff struggles to find polite ways to discuss such contentions.

Most of the points made in Applicant’s Opening Brief have already been sufficiently addressed in Staff’s Opening Brief, and will not be restated here. However, there are a few points that Applicant has raised that need to be addressed or further clarified.

Applicant incorrectly states that Staff “apparently” assumed that the view from KOP 9 was significant because Staff mistakenly believed that the KOP was in a wilderness

area. (Appl. Opening Brf., p. 180.) Yet Staff's testimony states that the impact is from the visual effect and not dependent on a wilderness location:

As depicted in Visual Resources Figure 15B, form, line, color and texture contrast of project structures would all be strong from this viewpoint. Towers would exhibit strong form and line contrast. The mirror fields would exhibit strong texture contrast with the natural ground plane. The glowing solar collectors and visible areas of mirror surface would exhibit strong color contrast against the ground plane and background mountain slopes [Para.] Due both to relative proximity to the project and the elevated viewing angle, the scale and spatial dominance of the project would be high (dominant). As illustrated in the simulation the project would extend over the entire field of view and could not be taken in in a single view. The brightly lit solar receivers would compete with the mountain peaks and ridges for visual dominance. [Para.] Similarly, the bright solar receivers would intrude into, and potentially interfere with, scenic views of the Clark Mountains from a moderate to strong degree depending upon the brightness of the solar receivers. [Para.] Overall project visual change would thus be strong. The project would demand attention, could not be overlooked, and would be dominant in the landscape. (Exh. 300, p. 6.12-25.)

Applicant likewise emphasizes, as if such a fact were decisive, that the boundary for the Stateline Wilderness is more than a mile from the project's closest edge. (Appl. Opening Brf., p. 180.) This might be an important consideration for a relatively small project of only a few acres, but it matters not at all for the visual effect of a project that is six square miles in size, extending laterally as much as five miles, and with towers nearly 500 feet in height with glaring solar collectors.

Raising similar irrelevant points, Applicant emphasizes that the KOP 10 simulation was not actually taken from Benson Mine, but from "a very steep, trail-less, virtually inaccessible rocky shale ridge adjacent to the Benson Mine," that this particular vantage point would not be visited by the public, and that Staff's visual consultant did not visit this spot. (Appl. Opening Brf., p. 183.) The KOP simulation was provided by Applicant at the request of BLM and Staff for a photo from the Benson mine vicinity. (12/14/09 Tr., pp. 268-269.) It is described accurately by the FSA as "looking east from *the vicinity of the Benson Mine Road.*" (Exh. 300, p. 6.12-26.) The simulation depicts what

the FSA describes, and the simulated view impact is by any standard significant. The fact that Applicant's consultant took the photo (also used for the simulation) off the road, or that the Staff witness had not personally stood on the site, are nothing more than distractions from the fundamental point: the project impact will be significant, and the visual change profound, from these northern perspectives.

Foraging outside the evidentiary record, Applicant next argues that a finding of significant impact would be inconsistent with Staff's analysis in the East Altamont FSA, which supposedly concluded that traffic counts for one perspective of that project, at 2500 cars per day, is "low to moderate use." (Appl. Opening Brf., p. 184.) The comparison to East Altamont is misleading, as the analysis of impact referred to was for the number of viewers who would see fleeting visible steam plumes, which was the source of the impact being analyzed in the cited Staff analysis. (East Altamont FSA, p. 5.11b-8.) The visual context was also quite different, inasmuch as East Altamont's visual environs are described as having a prominent electricity substation, agricultural use, and significant "industrial components" as part of the baseline. (*Id.*, at p. 5.11b-7.) As such there can be no meaningful comparison (although Staff's conclusion there was that overall visual exposure for motorists "would be moderate", not "low to moderate"). (*Id.*, at p. 5.11-8.) Moreover, this rather strained attempt at argument also relies on "evidence" that, apart from being irrelevant, is not part of the record.

Applicant next argues that simulation Vis-16B "clearly shows" that the ISEGS project "does not dominate the landscape." (Appl. Opening Brf., p. 185.) This is a curious claim. Even the faded and undersized photo simulation in the FSA illustrates how prominent and dominant the project would in fact be from KOP 10. Can anyone doubt that a person actually standing at this point, or any point nearby overlooking the project, could shrug off this degree of visual change as less than significant? The faded simulation clearly understates the actual visual effect of the expansive project, and does not even attempt to depict the glowing solar collectors that would also be apparent to an actual viewer from that KOP.

Applicant also strangely argues that there is no evidence (in a cumulative impact context) that a viewer from KOP 10 would see the solar photovoltaic project proposed to be located north of ISEGS, the Bighorn generation station, or the City of Primm. (*Id.*, at p. 188.) Yet Figure 16B, faded as it is, clearly shows both the City of Primm and the power plant, as well as a clear view of the proposed location of the new photovoltaic facility.

Applicant then uses an illogical “bootstrap” argument to claim that construction visual impacts will be less than significant: it contends that because the project itself has less than significant visual impacts, construction impacts must similarly be less than significant. (Appl. Opening Brf., p. 186.) The problem with this line of reasoning is two-fold. First, the impacts of the built project *would* be quite significant. Second, construction impacts would be different, as they will involve many vehicles, include grading and attendant dust, and include various construction equipment that makes the construction visual impacts different, but not necessarily less than, the profound impacts of the built project itself.

Finally, Applicant argues that CEQA does not “authorize an assessment of cumulative impacts outside the viewshed,” and that it “well-settled . . . generally in California, that the geographic boundaries of the cumulative impact assessments should be limited to the ecological boundaries that define the particular resource.” (Appl. Opening Brf., p. 189.)

A more accurate statement would be: Nothing in CEQA limits agency discretion to provide an appropriately broad assessment of cumulative impacts. The CEQA Guidelines are very general in what they direct agencies to consider for cumulative impact analysis, leaving wide discretion to agencies to make determinations about such things as the scope of the cumulative impact. (See Cal. Code Regs., tit. 14, § 15130; 1 Manaster & Selmi, California Environmental Law (2009 ed.) Environmental Impact Reports, § 22.04[6][b][iii] p. 22-71.) There are two pertinent directives: (1) the analysis should include “a list of past, present, and probable future projects producing related or

cumulative impacts including . . . projects outside the control of the agency” (or a “summary of projections,” not applicable here); and 2) “[l]ead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.” (Cal. Code Regs., tit. 14, § 15130(b).) Nothing in CEQA either “authorizes” or prohibits any particular geographic scope for alternatives analysis; the scope should be one that is consistent with providing the public and decision-maker with the most comprehensive understanding of project impacts.

Applicant states that the cumulative impact for visual analysis should be limited to “the immediate viewshed of a project.” (Appl. Opening Brf., pp. 189-194.) Such a limitation for the ISEGS analysis would effectively limit the cumulative analysis to the same visual resource area that is being used for the project’s *direct* impacts. In fact (and ironically), Applicant has questioned Staff’s direct impact significance conclusions by constant referral to other man-made components in the viewshed, such as the Primm Golf Course, the Bighorn generating station, the City of Primm, I-15, and transmission lines. It maintains that these past projects have already degraded the landscape to a degree that no more direct harm can be done.

Consistent with the CEQA Guideline requirement that it provide a reasonable justification for the scope of its analysis, Staff has explained that it has looked not only at cumulative impacts within the viewshed, but also at cumulative impacts to the “broader Mojave desert.” (Exh. 300, p. 6.12-31, 33.)⁶ Staff explained that because of the numerous energy projects currently being located throughout the broader Mojave Desert area (including non-jurisdictional projects such as solar photovoltaic and wind projects), the amount of near-term cumulative change should be considered by decision-makers in cumulative impact analysis. Many of these projects are clearly within the stage of environmental analysis (the Energy Commission has 12 such

⁶ This somewhat general term was substituted for “California Desert Resource Area,” a BLM designation for the greater Mojave Desert area that is public lands, at BLM’s request.

projects currently before it), such as the Desert Express train project. Others are at a more preliminary stage. The important point, and the reason for the broader analysis, is to provide a more comprehensive picture of how energy projects may result in significant cumulative changes to the desert landscape, which Staff believes will be profound.

Nothing in CEQA or any other document prohibits such broader analysis, and Applicant has cited no such document. Applicant states, with incorrect and unspecified reference to the “CEQA Guidelines” for legal authority, that the CEQA Guidelines define “probable future project” as being limited to projects for which an application has been received by the time the Notice of Application is released. (*Id.*, at p. 190.)

This assertion is legally incorrect, as the cited “definition” has been repealed.⁷ The CEQA Guidelines have no definition of “probable future projects,” nor do the Guidelines circumscribe the range of projects that should be considered in cumulative analysis in this manner. In fact, agencies must, *at a minimum*, include in listed cumulative projects existing projects, projects under construction, projects that are approved but unbuilt, and projects that are currently under environmental review. (*San Franciscans for Reasonable Growth v. City and County of San Francisco* (1984) 151 Cal.App.3d 61, 74.)

More importantly, “*a lead agency must not exclude from its list future projects of which it has knowledge but no current plans have been submitted for review, and must include projects for which applications have been submitted to other agencies if information about those projects is readily available from those agencies.*” (1 Manaster & Selmi, California Environmental Law (2009 ed.) Environmental Impact Reports, § 22.04[6][b][iii], p. 22-71 [citing *Laurel Heights Improvement Ass.*, *supra*, 47 Cal.3d 376,

⁷ The term “probable future projects” did appear as part of Section 15130 as a result of the 1998 CEQA revisions, but was subsequently deleted in response to the decision in *Communities for a Better Environment v. Calif. Resources Agency* (2002) 103 Cal.App.4th 98, 122. However, even the invalidated and repealed Section 15130 language was permissive, in that it stated that an agency “may” (not “shall”) so limit its cumulative analysis.

394-395] .) Agencies have broad discretion to determine the geographic scope of cumulative analysis (id, at p. 22-73; *Ebbetts Pass Forest Watch v. Cal. Dept. of Forestry and Fire Protection* (2008) 43 Cal.4th 936, 950), and an analysis with too limited scope “may lead to an EIR being considered inadequate.” (*San Franciscans for Reasonable Growth, supra*, at p. 74.) The information included in Staff’s cumulative visual analysis includes projects that have submitted various application documents to BLM. Thus the breadth of this analysis is legally prudent in addition to being more analytically informative.

Applicant also argues that cumulative analysis should be limited “to the ecological boundaries that define the particular resource,” referring to cumulative air impacts in an air basin, cumulative water resource impacts in a water basin, and so forth. But this ignores the different nature of visual resources, which may be regional and not confined to any particular basin. Visual impacts can have powerful cumulative effect if one turns the corner going west from the Nipton Road turnoff, only to be confronted by another new project beyond those left behind in the Ivanpah Valley. As the Commissioners well know, if the thermal solar projects currently before the Energy Commission are licensed, there will be a rather dramatic difference in the desert landscape as one drives the I-10 corridor east through the Mojave, even if each of the licensed projects is in a “different viewshed” from the next one. Staff went beyond a viewshed circumscribed analysis to provide a broader regional view of how the impacts from “closely related” projects can affect the desert landscape.

Nothing in CEQA or any other legal provision limits the Energy Commission to a narrower, “tunnel-vision” cumulative analysis.

IV. THE ALTERNATIVES ANALYSIS WAS BROAD AND SUFFICIENT.

This brief will avoid repeating its Alternatives discussion from the Opening Brief. The Opening Brief discusses Staff’s consideration of the Sierra Club (or “I-15”) alternative, and this discussion effectively answers incorrect claims by CBD and Sierra Club that

Staff failed to consider that alternative. It also explains why Staff did not find the Sierra Club alternative, or other alternatives except the “reduced footprint alternative,” preferable to the ISEGS project. Some further issues are addressed here.

CBD asserts that the FSA has no project alternatives, citing the second paragraph of the FSA’s more than 90-page analysis. (CBD Opening Brf., p. 46.) The paragraph in question was one requested by BLM indicating that it is restricted to approving projects within BLM’s land jurisdiction, which include the project and “no project” alternatives. The very next paragraph in the FSA goes on to state that 22 different alternatives are addressed in the environmental analysis. (Exh. 300, p. 4-1.) The following 90 pages include analysis of a wide variety of alternatives, many of which are not within BLM’s jurisdiction.

CBD next asserts that there was no economic analysis that any of the alternatives considered are economically infeasible. (CBD Opening Brf., p. 48.) This is correct but irrelevant; Staff did not find any alternatives infeasible for economic reasons; rather, it found them to be infeasible for other reasons, or to have no environmental benefit. Harper Lake was not termed infeasible for cost, as CBD suggests (although Applicant did state that cost was a reason it disregarded the alternative); rather, this alternative was clearly infeasible because it was owned by a developer who was applying to the Energy Commission for a separate project at this site (Abengoa AFC). To call a separate project application by a different applicant a feasible alternative would be a peculiar notion of project alternatives, as there would be no possibility of Applicant getting site control for the project—a relevant feasibility criterion of the CEQA Guidelines. (Cal. Code Regs., tit. 14, § 15126.1(f)(1).) CBD’s assertion that all project applications are alternatives to each other (CBD Opening Brf., p. 7) is incorrect for the same reason. Moreover, such a claim is absurd inasmuch as it would make any single solar application a basis for rejecting the dozen other solar thermal projects that are intended to meet the state’s RPS goals.

Other issues, such as the feasibility of distributed photovoltaic generation as an alternative, are sufficiently addressed in Staff’s Opening Brief.

V. OTHER CLAIMS THAT THE FSA IS INSUFFICIENT LACK MERIT.

CBD asserts that ISEGS is an “experimental” project (CBD Opening Brf., p. 5), without explaining what such means or why this would lead to a differing environmental analysis. Staff testified as to the project’s reliability, concluding that it can be built and operated consistent with industry norms. (Exh. 300, pp. 7.3-1 to 7.) The technology and equipment are fully described. (*Id.*, at pp. 3-5 to 3-14.) Neither CBD nor any other party provided substantial evidence that the project will not function as intended.

CBD asserts that there are inconsistencies in the operation numbers for backup boiler use, that the project therefore might have more greenhouse gas (GHG) emissions than calculated, and that this renders the project “enigmatic” and the FSA “insufficient as an informational document.” (CBD Opening Brf., pp. 8-9.) These concerns are misplaced. The operation of the backup gas boilers is severely restricted by permit conditions to a maximum of four hours per day. (Exh. 300, p. 6.1-48.) ISEGS will displace from 330,000 to 930,000 metric tons per year of carbon dioxide emissions. (*Id.*, at p. 6.1-73.) Even if one assumes, for the sake argument (and Staff does not concede this point), that GHG emissions have been slightly miscalculated, there is absolutely no basis, and no evidence in the record, to support any claim that the project *increases* GHG emissions, that the project is “enigmatic,” or that such a trivial calculation error would render the FSA insufficient.

CBD similarly claims that the absence of a “lifecycle GHG analysis” makes the FSA inadequate, and that there is a “gaping hole” in the analysis because Staff has not developed a significance “threshold” for GHG. (CBD Opening Brf., pp. 37-38.) CBD does not describe what the term “lifecycle GHG analysis” means, what it should include, how such analysis would be done, what practical limits might be observed, or what value it would offer to either the public or a decision-maker with regard to the project’s impacts on climate change and GHG emissions. The term is without any verifiable meaning, and is calculated to lead hapless agencies into blind analytic canyons from

which they may never emerge. Again, uncontroverted substantial evidence indicates that the ISEGS solar thermal project will result in significant reductions to GHG emissions from the electricity generating system—the very reason such projects are favored by state energy policy and the Renewable Portfolio Standard. Since all testimony indicates that the project will serve to *reduce* GHG emissions, the notion of a significance “threshold” for CEQA purposes is meaningless for this project.⁸

CBD’s claim that the FSA does not include requirements to minimize GHG emissions (CBD Opening Brf., p. 38) is equally groundless. Backup boiler use is restricted by terms recommended by the air district in terms of hourly use (Exh. 300, p. 48), as CBD begrudgingly acknowledges, and air quality construction conditions that reduce criteria emissions also serve to reduce and avoid GHG emissions from project equipment. (Exh. 300, pp.40-45, 73-74.) These proposed conditions are in fact the “best practices” mitigation endorsed by the Siting Committee Guidance on GHG, elements that CBD incorrectly claims have been overlooked. (CBD Opening Brf., p. 38.)

In a similar vein, CBD asserts that some slight seasonal shading of ISEGS heliostats has not been addressed in the FSA, rendering the document’s discussion of the environmental baseline inadequate. (CBD Opening Brf., p. 16.) CBD did produce evidence of some very small amount of seasonal heliostat shading during early morning and late afternoon hours, but there is no evidence in the record at all that such would reduce the generating efficiency of the project. Presumably any impact, if there is one, is too trivial to calculate, and there is no evidence that such shading matters at all. Similarly, CBD claims that the environmental baseline should have considered cloud activity at the site, and that failure to present such information renders the environmental baseline inadequate. Again, such “cloud impacts” are purely speculative,

⁸ CBD quotes the Final Statement of Reasons from the recent Resources Agency CEQA rulemaking: “. . . where substantial evidence supports a fair argument that such [specific lifecycle GHG emissions] effects are attributable to the project, that evidence must be considered.” (CBD Opening Brf., p. 38.) However, CBD can point to no substantial evidence of such lifecycle effects, as it presented none, as did no other party.

and CBD produced not one iota of evidence that such would counter the high desert solarity which makes the Mojave an attractive site for solar thermal generation.

CBD claims that the project may affect insects and birds. Staff considered impacts to birds (see prior discussion under “A,” *supra*); there is no record evidence of impacts to insects, merely CBD’s speculative concerns that are not substantial evidence. (Cal. Code Regs., tit. 14, § 15384.)

CBD asserts that the project description is inadequate because it does not include the details of, among other things, the tortoise translocation plan. (CBD Opening Brf., p. 10.) CBD should understand that the translocation plan is a federal USFWS document that the Staff and CDFG comment on, and which goes through an iterative revision process. Contrary to CBD’s claim that this results in “a failure to provide reasonable public review,” the translocation plan process involves draft plans subject to agency and public comment. Two intervenors have participated in commenting on the plan. As a reviewing state agency, the Energy Commission can effectively only comment on the plan, as well as require that Applicant comply with the final plan.

CBD asserts that the FSA “understates” the biological value of the ISEGS site for tortoise and rare plants, and “downplays” the value of tortoise habitat. (*Id.*, at pp. 10-14.) Although Staff has tried to keep its FSA analysis unbiased, this is a remarkable contention. The first ten pages of this Reply Brief are devoted to refuting Applicant’s contentions that staff has overstated and exaggerated the value of tortoise and rare plant habitat at the site.

CBD claims that the project has failed to consider the project “as a whole,” violating CEQA’s prohibition against “piecemealing” of projects. (*Id.*, at pp. 16-19.) Apart of the hornbook legal analysis, CBD musters only the Ivanpah-Eldorado transmission project as the example of piecemealing. (*Ibid.*) This claim is groundless. The Preliminary Staff Assessment (PSA) included a complete analysis (subsequently updated) for the Ivanpah-Eldorado project using the information that was available at that time. (See

Exhs. 309 [PSA], 304 [updated transmission line analysis].) The project application was first filed at the California Public Utilities Commission in the middle of 2009. CBD has apparently not read these rather substantial transmission line documents, which augment the briefer cumulative impact discussion of the transmission line in the FSA.

CBD faults proposed conditions to control dust, stating that the “dust control plan” required by AQ-SC7 leaves the plan for future development. (CBD Opening Brf., p. 33.) CBD fails to acknowledge that AQ-SC7 references AQ-SC3, which includes a comprehensive list of dust control measures that must be part of such a plan, providing the necessary specificity and compliance monitoring that ensures the effectiveness of such provisions. (Exh. 300, pp. 6.1-44, 40-41.)

CBD claims that the FSA fails to provide a cumulative impact analysis of air quality, and that it fails to provide a cumulative impact of human “sprawl development” on desert tortoise. (CBD Opening Brf., pp. 40-41.) These claims are incorrect. As the FSA repeatedly explains, the entire air quality analysis in the FSA is in essence a cumulative impact analysis, as the project itself could not likely result in a direct significant impact, but may well have cumulative air quality impacts that must be addressed. (See, e.g., Exh. 300, pp. 30-33.) In addition the FSA describes the impact of human development in the ISEGS region to be a significant cumulative impact. (*Id.*, at p. 6.2-2.)

CBD claims that the cumulative impact analysis for desert biology is defective in that, after describing the impacts, it “jumps” to the conclusion that such could be mitigated to a less than significant impact with prescribed mitigation. (CBD Opening Brf., p. 43.) The testimony describing the rationale for the FSA’s CESA mitigation has already been fully described in the Staff Opening Brief, and this Reply Brief as well. The lengthy analysis in the FSA describing the rationale for the mitigation and its details is hardly the analytic “jump” CBD alleges.

CBD alleges that the FSA failed to consider “growth inducing impacts” because it failed to analyze “the substation and powerline upgrades it requires” including “the resulting

size, location, and configuration” of such ancillary facilities. (CBD Opening Brf., p. 44.) As discussed above, these projects are subject to a separate project application by a different entity to the California Public Utilities Commission, and the application for this project was only recently filed. (Exh. 300, p. 5-19.) Even so, Staff did not fail to analyze transmission line and substation upgrades, and such have been covered in its analysis with specificity matching the degree of information available when the analysis was written. (*Ibid.*, see also Exhs. 309 [PSA] and 304 [updated transmission analysis].)

VI. CONCLUSION.

Applicant resists Staff’s conclusions regarding the significance of impacts and the necessity for adequate mitigation with a variety of contentions that do not withstand scrutiny. CESA requires full mitigation for project effects that can only be satisfied by the Energy Commission’s in lieu permit, with the conditions Staff proposes. The project affects several plants that are “rare” pursuant to CEQA, and mitigation for such is required. Visual impacts are significant, both directly and cumulatively, even after all feasible mitigation. The Energy Commission should make findings acknowledging the above and require appropriate mitigation proposed by Staff, and make override findings where significant impacts cannot be mitigated.

CBD alleges much, but the allegations are thinly supported if they find support at all. It is natural for project opponents to point to ways in which environmental analysis is imperfect, and to demand more and better analysis, supported by more surveys and studies. The Staff’s FSA and additional environmental analysis are indeed imperfect. But they constitute a conscientious, good-faith, unbiased, and comprehensive analysis that meet the judicial requirement of “an objective good faith effort at full disclosure.” (See *Residents Ad Hoc Stadium Com. v. Board of Trustees* (1979) 89 Cal.App.3d 274, 285-287.)

The CEQA “rule of reason” is set forth in the CEQA Guidelines as follows:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency is to be reviewed in light of what is reasonably feasible . . . The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure. (Cal. Code Regs., tit. 14, § 15151.)

Staff's FSA, supplemental testimony, and exhibits have provided that good faith effort at full disclosure. The Energy Commission process has allowed Applicant and intervenors to test that Staff analysis, and to supplement it and make it still better. In the end this complex project has been sufficiently analyzed such that the decision-makers can make their informed decision. It is now up to them to do so.

April 16, 2010

Respectfully submitted,

/s/ Richard C. Ratliff
RICHARD C. RATLIFF
Staff Counsel IV

APPENDIX

Plant Species	CNPS LIST STATUS
Rusby's desert mallow	1B.2
	1B – Plants rare, threatened, or endangered in California and elsewhere
Mojave milkweed	CNPS – 2.31 2 – Plants rare, threatened, or endangered in California, but more common elsewhere .31 -- Not very <u>Seriously</u> endangered in California
Desert pincushion	CNPS – 2.21 2 – Plants rare, threatened, or endangered in California, but more common elsewhere .21 -- Fairly <u>Seriously</u> endangered in California
Parish's club-cholla	CNPS – 2.32 2 – Plants rare, threatened, or endangered in California, but more common elsewhere .32 -- Not very <u>Fairly</u> endangered in California
Nine-awned pappus grass	CNPS – 2.32 2 – Plants rare, threatened, or endangered in California, but more common elsewhere .32 -- Not very <u>Fairly</u> endangered in California
small-flowered androstephium	List 2.2 2 – Plants rare, threatened, or California endangered in California, but more common elsewhere .2 -- Fairly endangered in California

Plant Species	CNDDB RANKING
Rusby's desert mallow	G4T1T2, S1.32 G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors. <u>G4T2 <i>Sphaeralcea rusbyi</i> var. <i>eremicola</i>, the plant of concern here, is Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors. All three varieties/subspecies of the <i>Sphaeralcea rusbyi</i> considered collectively are considered Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors. (See http://www.natureserve.org/explorer/servlet/NatureServe?searchSciOrCommonName=sphaeralcea+rusbyi)</u>

	<p>S4₂— Critically Imperiled —Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.</p>
Mojave milkweed	<p>G4G5, S1:3 G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors. G5 = Secure—Common; widespread and abundant. S1— Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.</p>
Desert pincushion	<p>G2G3, S2:21 G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors. G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors. S2₁— Critically Imperiled —Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.</p>
Parish’s club-cholla	<p>G3G4, S2:32 G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors. G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors. S2— Imperiled —Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.</p>
Nine-awned pappus grass	<p>CNDDDB – G5, S2? G5 = Secure—Common; widespread and abundant. S2— Imperiled —Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.</p>

small-flowered androstephium	G5; S1.2 G5 = Secure —Common; widespread and abundant. S1— Critically Imperiled
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**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
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APPLICATION FOR CERTIFICATION
FOR THE *IVANPAH SOLAR ELECTRIC
GENERATING SYSTEM*

DOCKET No. 07-AFC-5
PROOF OF SERVICE
(Revised 3/11/10)

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DECLARATION OF SERVICE

I, Janet Preis, declare that on April 16, 2010, I served and filed copies of the attached, Energy Commission Staff's Reply Brief, dated April 16, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [www.energy.ca.gov/sitingcases/ivanpah].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

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I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

/s/ Janet Preis
Janet Preis



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DECLARATION OF SERVICE

I, Janet Preis, declare that on April 16, 2010, I served and filed copies of the attached, Energy Commission Staff's Reply Brief, dated April 16, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [www.energy.ca.gov/sitingcases/ivanpah].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

- sent electronically to all email addresses on the Proof of Service list;
- by personal delivery;
- by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred." (WILL MAIL MONDAY)

AND

FOR FILING WITH THE ENERGY COMMISSION:

- sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (*preferred method*);

OR

- depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION

Attn: Docket No. 07-AFC-5
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

/s/ Janet Preis
Janet Preis