

**DOCKET**

**07-AFC-5**

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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

**FINAL PREHEARING CONFERENCE STATEMENT OF INTERVENOR  
WESTERN WATERSHEDS PROJECT**

December 29, 2009

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Pursuant to the *Revised* Notice of Prehearing Conferences and Evidentiary Hearing, Intervenor Western Watersheds Project provides this Final Prehearing Conference Statement identifying issues that Western Watersheds Project will raise at the public evidentiary hearing. At this time, CEC staff and the project applicant are still heavily involved in discussion and negotiation over key issues, and project conditions are being revised, added and deleted. Because of this, Western Watersheds Project reserves the right to respond to revisions to license conditions and/or mitigation/avoidance measures once CEC staff and the project applicant negotiations are complete.

**I. Topic Areas That Are Complete and Ready to Proceed to Evidentiary Hearing.**

Western Watersheds Project is prepared to proceed to hearing on the topic of biological resources. However, it does not view the biological resources analysis as complete and ready for final hearing.

**II. Topic Areas That Are Not Complete and Not Yet Ready to Proceed to Evidentiary Hearing.**

The record for many topics is incomplete because staff and the applicant continue to revise, add and/or remove license conditions. Given these moving targets, it is impossible to evaluate whether the project will fully comply with relevant federal and state LORS. We consider the following topic areas identified in our preliminary conference statement as not complete.

**Project Description 3:** The project description is too narrow and segments environmental review of this project from other connected projects such as the substation and transmission line that are necessary for the project to proceed.

**Purpose and Need:** The FSA/DEIS improperly assumes that the proposed ISEGS plant must be built at this location. As the FSA/DEIS admits, building the proposed ISEGS project at the proposed location "would have major impacts to the biological resources of the Ivanpah Valley, substantially affecting many sensitive plant and wildlife species and eliminating a broad expanse of relatively undisturbed Mojave Desert habitat." (FSA/DEIS p. 1-17), including, "Permanent loss of 4,073+ acres of Mojave creosote scrub and other native plant communities, including approximately 6,400 barrel cacti; permanent loss of cover, foraging, breeding habitat for wildlife; habitat fragmentation and loss of connectivity for terrestrial wildlife; disturbance/dust to nearby vegetation and wildlife; increased predation due to increased raven/predator presence; spread of non-native invasive weeds; and direct, indirect, cumulative impacts to special status plant species." (FSA/DEIS p. 6.2-72)

**Biological Resources 6.2:** There remain fundamental unresolved issues in the areas of biological resources, specifically with regard to direct, indirect and cumulative effects on desert tortoise and rare and sensitive plant species, and the mitigations required to offset these impacts.

**a. Climate Change:** The FSA/DEIS fails to address risks to biological resources associated with global climate change in the context of the need for climate change mitigation strategies (e.g., reducing greenhouse gas emissions) and the need for climate change adaptation strategies (e.g., conserving intact wild lands and the corridors that connect them). Renewable energy projects, including the proposed ISEGS project, are elements of a national climate change mitigation strategy to reduce greenhouse gas emissions. Several California state, national, and international climate change reports describing climate change adaptation strategies underline the importance of protecting intact wild lands and associated wildlife corridors as a priority adaptation strategy measure.

The habitat fragmentation, loss of connectivity for terrestrial wildlife, and introduction of predator and invasive weed species associated with the ISEGS project in the proposed location are anathema to an effective climate change adaptation strategy. Siting the proposed ISEGS project in the proposed location in Ivanpah Valley confounds our climate change adaptation strategy with a poorly executed climate change mitigation strategy. WWP believes that the solution to this problem is to build and operate the proposed ISEGS project (to implement the mitigation strategy) in an alternative site away from intact wild lands (to implement the adaptation strategy). The way to maintain healthy, vibrant ecosystems is not to fragment them and reduce their biodiversity.

In addition, the FSA/DEIS fails to identify and analyze the loss of carbon sequestration that will occur under the proposed project. Desert vegetation types are able to sequester atmospheric carbon dioxide (greenhouse gas) 24 hours/day, unlike other vegetation communities which are able to sequester CO<sub>2</sub> only during daylight hours. ISEGS and all desert utility-scale projects to follow will decrease the carbon sequestration benefits from

desert vegetation. (Wohlfahrt et al. 2008<sup>1</sup>) This impact should have been identified and analyzed in the FSA/DEIS.

**b. Desert tortoise:** The FSA/DEIS discussion of desert tortoise impacts and the proposed mitigation is wholly inadequate. It does not address the direct, indirect and cumulative effects of this project to the Northeastern Mojave Desert Tortoise Evolutionarily Significant Unit (ESU). The proposed desert tortoise mitigation measures do not mitigate impacts to this ESU. The impacts to this population will be severe and may endanger the population in California. See testimony of Dr. Michael J. Connor.

**c. Bighorn Sheep:** The FSA/DEIS fails to fully analyze impacts to bighorn, provide alternatives to avoid impacts, or provide measures to minimize impacts. For example, the suggested mitigation measure of adding an artificial water source in the Clark Mountain area will not mitigate for the loss of bajada foraging habitat. The FSA/DEIS also fails to identify and analyze the impacts associated with the construction and maintenance of this artificial water source such as facilitating raven presence in the North Ivanpah Valley.

**d. Other Wildlife:** The FSA/DEIS fails to fully analyze impacts to gila monsters, burrowing owl, other bird species, bats, and other wildlife or to provide alternatives to avoid impacts, or provide measures to minimize impacts.

**e. Rare Plants and Special Status Plant Communities:** For rare plants and special status plant communities the FSA/DEIS provides too little analysis of impacts, inadequate discussion of alternatives that could avoid impacts, and inadequate information about the proposed mitigation strategy. The FSA/DEIS concludes that the ISEGS project will result in "impacts to Mojave milkweed and Rusby's desert-mallow" that "would remain significant in a CEQA context even after implementation of the special-status plant impact avoidance and minimization measures described in Energy Commission staff's proposed conditions of certification." (FSA/DEIS p. 1-18) The best way to avoid CEQA-significant impacts to rare plants occurring at this site is to relocate the project to another, lower resource value site but this was not adequately considered in the FSA/DEIS.

The special-status plant avoidance and minimization measures provided in the FSA/DEIS are also inadequate. During the workshop, the Applicants proposed avoidance measures including reconfiguring the distribution of heliostats. It is unclear at this juncture if this will still result in significant impacts to rare plants under CEQA. Indeed, the lack of fall surveys under-represents the full suite of rare plant taxa occurring on site.

**g. Habitat Loss and Compensatory Mitigation:** The compensatory mitigation plan relies on so-called "nesting" to provide compensatory mitigation for loss of habitat and individuals for multiple several plants and animal species. The plan described in the FSA/DEIS proposes acquisition of desert tortoise habitat in the Eastern Mojave Recovery Unit. Because the tortoises in the Eastern Mojave Recovery Unit are a different ESU,

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<sup>1</sup> Wohlfahrt, G., Fenstermaker, L. F. and Arnone, J. A. III. 2008. Large annual net ecosystem CO<sub>2</sub> uptake of a Mojave Desert ecosystem. *Global Change Biology*. 14(7): 1475-1487.

this would not mitigate for impacts to California's Northeastern Mojave tortoise population that is being affected by the proposed action. Because the plan described in the FSA/DEIS only addresses desert tortoise habitat, it may also be inadequate to provide for the mitigation needs of the many other species that will be impacted by the project. WWP believes that the staff must revisit this issue and explain how the compensatory mitigation will benefit the Northeastern Mojave desert tortoise population and how the so-called "nesting" of mitigation will actually provide for compensatory mitigation for each species of special status species of plants and animals, including gila monster, burrowing owl, nesting bird species, American badger, Nelson bighorn sheep, and rare plants.

**Limiting the Spread of Invasive Non-Native Plants/Weeds 6.2:** WWP is concerned that the FSA/DEIS fails to fully analyze the project's direct, indirect, and cumulative effects on the spread of invasive weeds and the potential increase in wildfire risks.

**Impacts to National Park Service Lands and Resources 6.12:** The FSA/DEIS fails to adequately address the impacts to National Park Service Lands and resources including potential impacts to visual resources; water resources (springs and seeps); impacts to dark night skies due to night lighting at the project site; impacts to bighorn that live in the Clark Mountains area; and others. *See* below re cumulative impacts as well. No measures are provided to avoid or minimize and mitigate these impacts.

**Cultural Resources and Native American Values 6.3:** WWP is concerned that the FSA/DEIS analysis of impacts to cultural resources and Native American values fails to fully analyze the project's direct, indirect, and cumulative effects. The historical significance of ISEGS-01 archaeological site remains unknown. Without this information, we do not understand how the loss of this site could be determined to be insignificant.

**Land Use 6.5:** Under both local and federal plans this area is inappropriate for the proposed exclusive industrial use of public lands to the exclusion of all other uses. FLPLMA provides for multiple use. The project when seen in the context of other connected projects (including multiple solar projects, two substations and additional transmission lines) will *de facto* create a *de facto* "solar zone" in this area undermining the PEIS planning process undertaken by the BLM.

**Water Resources 6.9:** The FSA/DEIS fails to adequately address the hydrology of the groundwater basins that are proposed to be pumped by the applicant and the likely impacts to other area waters including surface waters. As noted above, the FSA/DEIS simply assumes there will be no impacts to springs utilized by wildlife in the surrounding mountains and wilderness areas, no information regarding the basis of this conclusion is provided. The FSA/DEIS identifies impacts to surface drainages on the bajada/alluvial fan that would be destroyed by the project but fails to adequately address avoidance and minimization of these impacts. The FSA/DEIS also fails to provide any specific discussion of mitigation for these impacts—again deferring the plan to a later date. During the workshop the Applicant proposed deleting BIO-20 "Streambed Impact

Avoidance and Compensation Measures” in its entirety. Western Watersheds Project strenuously objects to this proposed deletion. Desert washes, drainage systems, and washlets are crucial habitats for plants and animals in arid lands.

**Soils 6.9:** Damage to intact desert soils and the resulting increased siltation during flooding and dust are not adequately analyzed in the FSA/DEIS. For example, off-site impacts from silt washed down through the site during flood events and the impacts of those events on habitat for desert tortoise and rare plants are not fully examined, avoided, minimized, and mitigated.

**Cumulative Impacts and Growth Inducing Impacts 5:** The Cumulative Scenario omits several key projects and fails to adequately analyze the scope of the cumulative impacts in this area. The FSA/DEIS fails to adequately consider that the California population of the Northeastern Mojave Desert Tortoise Recovery Unit in the northern Ivanpah Valley is unique in California and is at high risk of extirpation from the state from the cumulative effects of this project, the Optisolar (now First Solar) power project adjacent to ISEGS, the proposed DesertXpress High Speed Passenger Train, and the upgrade of the Eldorado-Ivanpah transmission line in California alone.

The FSA/DEIS fails to adequately identify and analyze both the cumulative impacts and the growth inducing impacts which in this instance are closely tied together. While review of the Optisolar application has yet to begin, the high cost of the Eldorado-Ivanpah transmission upgrade provides a compelling economic incentive for approval of the Optisolar project, virtually ensuring yet another solar power project on prime desert tortoise habitat in the northern Ivanpah Valley. Arguably, neither project alone could amortize the cost of the proposed Eldorado-Ivanpah upgrade, which involves the construction of 35 miles of high voltage lines from California into Nevada and separate telecommunications pathways. The cumulative impacts from these two projects on the northern Ivanpah Valley are not adequately assessed and the growth inducing impacts from the approval of one project on the entire area is not adequately assessed or analyzed.

Moreover, in addition to ISEGS and Optisolar (First Solar) on the northeastern slopes of the Clark Mountains, two solar energy generation facilities are proposed by NextLight Renewable Power on 7,840 acres of public lands on the eastern side of the Ivanpah Valley. These lands are also high quality desert tortoise habitat with intact and robust populations of desert tortoise. The FSA/DEIS fails to adequately assess the cumulative impacts to tortoise in this Recovery Unit from these projects and several other solar projects on the Nevada side of the border. In combination, the cumulative impacts of these developments severely threaten the Northeastern Desert Tortoise Recovery Unit in the entire Ivanpah basin.

Cumulative impacts to special status plants are recognized (Executive Summary, FSA/DEIS, p. 1-15) but the FSA/DEIS has failed to adequately analyze these cumulative impacts across the range of these species and ways to avoid and minimize these impacts. In addition, as noted above, the provisions for “nesting” mitigation do not ensure that the

loss of the individual plants and the cumulative impacts from those losses will in fact be adequately compensated.

Cumulative impacts will convert the Northern Ivanpah Valley into a de-facto solar zone and industrial zone. The cumulative impacts to species across the zone and across the stateline into the eastern Ivanpah Valley are not adequately addressed as well as the conversion of a largely natural area – the Ivanpah Valley and dry lake area as a whole— into a largely industrialized area with more than 6 large scale solar plants, the accompanying substations and power lines, glare and heat islands that will be created across the “zone.”

National Park lands resources will also be cumulatively impacted in several ways. The Clark Mountains, part of the Mojave National Preserve, rise to almost 8,000 feet from the Ivanpah Valley and view of the mountains from the valley will be marred by the seven towers of the ISEGS project, each rising to 459 feet above the valley.

In addition, the project’s array of 428,000 mirrors will impair the view from Clark Mountain within the Mojave National Preserve, a popular and well known site among rock climbers. Scenic views from two wilderness areas (Mesquite and Stateline) will also be adversely affected. Staff note these impacts to visual resources (*see* FSA/DEIS p. 1-30) but the FSA/DEIS fails to look at ways to avoid these impacts through alternative siting or otherwise.

**Alternatives Analysis 4:** The FSA/DEIS fails to provide alternatives that would avoid significant impacts of the project particularly the significant impacts to biological resources but that would allow the project to proceed. The FSA/DEIS examines several project alternatives that staff had already determined would not meet the purpose and need of the project in what appears to be an elevation of form over substance. Because the alternatives analysis is the “heart” of any environmental review, the failure to provide meaningful alternatives is fatal to this FSA/DEIS. Indeed, even the CDFG noted that a “full analysis” of alternate sites was still lacking in the FSA/DEIS. CDFG Comments dated October 27, 2009 at 3. Unfortunately, rather than looking for meaningful alternatives that avoid significant impacts to the Northeastern Mojave desert tortoise and other significant biological resources, the Staff appears to simply accept the applicant’s proposal and choice to build the proposed project in “excellent tortoise habitat, with a low level of disturbance and high plant species diversity,” even where “lower quality habitat is clearly within range to potentially reduce the overall Project impacts to endangered and sensitive species.” *Id.*

### **III. Witnesses, Topics, Testimony and Exhibits**

#### **A. Witnesses, Testimony and Topics**

Western Watersheds Project will sponsor the testimony of Michael J. Connor. Dr. Connor will testify on the proposed project’s impacts on biological resources.

Dr. Connor's declaration and curriculum vitae are attached to his direct testimony.

## B. List of Exhibits

Western Watersheds Project offers the following documents as Exhibits. Exhibits 500 through 513 were submitted to all parties on December 18, 2009. Western Watersheds Project is submitting Exhibit 514 with this statement. Western Watersheds Project also notes that the timing for this process as established by the Commission allows for submission of rebuttal testimony by January 4, 2010. Accordingly, Western Watersheds Project reserves the right to introduce any additional exhibits that may be required as part of its rebuttal testimony.

Exhibit Number	Author and Title
500	Letter submitted March 4, 2009 by Western Watersheds Project to John Kessler, Project Manager, California Energy Commission Re: Ivanpah Solar Electric Generating System (ISEGS) (07-AFC-5) Preliminary Staff Assessment.
501	Letter submitted May 13, 2009 by Western Watersheds Project RE: Draft Desert Tortoise Translocation/Relocation Plan for the Ivanpah Solar Electric Generating System March 2009.
502	Berry, K. H., Morafka, D. J. and Murphy, R. W. 2002. Defining the desert tortoise(s): our first priority for a coherent conservation strategy. <i>Chelonian Conservation and Biology</i> 4: 249-262.
503	U.S. Fish and Wildlife Service. 1994. Figure 9 from: Desert Tortoise (Mojave Population) Recovery Plan. USFWS, Portland, Oregon.
504	U.S. Fish and Wildlife Service. 2009. Range-wide Monitoring of the Mojave Population of the Desert Tortoise: 2007 Annual Report. Report by the Desert Tortoise Recovery Office, USFWS, Reno, Nevada.
505	Lamb, T. 1986. Genetic variation in mitochondrial DNA of the Desert Tortoise, <i>Gopherus agassizii</i> , in California. <i>Proc. Desert Tortoise Council Symp.</i> 1986: 45-52.
506	Lamb, T., Avise, J. C. and Gibbons, J. W. 1989. Phylogeographic patterns in mitochondrial DNA of the desert tortoise ( <i>Xerobates agassizi</i> ), and evolutionary relationships among the North American gopher tortoises. <i>Evolution</i> . 43(1): 76-87.
507	Murphy, R. W., Berry, K. H., Edwards, T. and Mcluckie, A. M. 2007. A Genetic Assessment of the Recovery Units for the Mojave Population of the Desert Tortoise, <i>Gopherus agassizii</i> . <i>Chelonian Conservation and Biology</i> 6(2): 229-251.
508	CNDDDB 2009. Report for Desert Tortoise Occurrence 2. California Natural Diversity Database, California Department of Fish and Game.
509	CNDDDB 2009a. Map showing the polygon for Desert Tortoise Occurrence 2 from the California Natural Diversity Database overlaid on a topographic base-map.
510	Britten, H. B., Riddle, B. R., Brussard, P. F., Marlow, R. and Lee, Jr., T. E. 1997. Genetic delineation of management units for the desert tortoise, <i>Gopherus agassizii</i> , in the northeastern Mojave Desert. <i>Copeia</i> 1997: 523-30.
511	Berry et al., 1984. Plate 6-13 "Desert Tortoise Crucial Habitat in California Ivanpah Valley" from Berry, K. H. (1984) <i>The Status of the Desert Tortoise (Gopherus agassizii) in the United States</i> . US Fish and Wildlife Services on Purchase Order No. 11210-0083-81, Page 6-30.



- 512 Spang, E.F., Lamb, G. W., Rowley, F., Radtkey, W. H., Olendorff, R. R., Dahlem, E.  
A. and Sloane, S. 1988. Desert Tortoise Habitat Management on the Public Lands: a  
513 Rangewide Plan. USDI Bureau of Land Management, November 1988. 23 pp.  
Oftedal, O. T. and Allen, M. E. 1996. Nutrition as a Major Facet of Reptile  
514 Conservation. *Zoo Biology* 15: 491 - 497.  
Letter submitted December 18, 2009 by the Desert Tortoise Council to John Kessler,  
Project Manager, California Energy Commission, Re: Ivanpah Solar Electric  
Generating System (07-AFC-5). 4 pp.

#### **IV. Proposed Modifications to the Proposed Conditions of Certification**

As noted above, staff and the applicant continue to revise key license conditions. Indeed, staff and the applicant were still revising conditions at the public workshops that began on December 15, 2009 and continue.<sup>2</sup> Therefore, Western Watersheds Project is unable to assess the conditions related to biological resources as of the date of this filing. Western Watersheds Project reserves the right to provide proposed modifications for conditions, and additional proposed conditions once staff and the applicant complete their work.

#### **V. Proposals for Briefing Deadlines and Scheduling Matters**

Given the volume of resource issues in this case and their importance, Western Watersheds Project requests that the opening briefs following the evidentiary hearings not be due any earlier than three weeks after the close of the evidentiary hearings.

Dated: December 29, 2009

Respectfully submitted,



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<sup>2</sup> For example, during the workshop the Applicant proposed deleting BIO-20 "Streambed Impact Avoidance and Compensation Measures" in its entirety. Western Watersheds Project strenuously objects to this proposed deletion. Desert washes, drainage systems, and washlets are crucial habitats for plants and animals in arid lands.

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**DECLARATION OF SERVICE**

I, Michael J. Connor, declare that on December 29, 2009, I served and filed copies of the attached Preconference Hearing Statement, dated December 29, 2009. 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 document has been sent to 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 or by depositing in the United States mail with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above to those addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

sending an original and 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

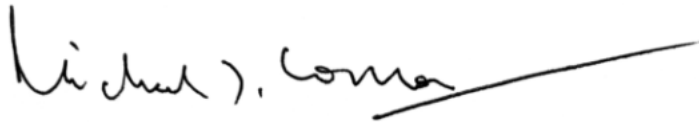
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I declare under penalty of perjury that the foregoing is true and correct.



Michael J. Connor, Ph.D.

**Sent via email to:** [sdeyoung@brightsourceenergy.com](mailto:sdeyoung@brightsourceenergy.com); [tstewart@brightsourceenergy.com](mailto:tstewart@brightsourceenergy.com); [jcarrier@ch2m.com](mailto:jcarrier@ch2m.com); [jdj@eslawfirm.com](mailto:jdj@eslawfirm.com); [e-recipient@caiso.com](mailto:e-recipient@caiso.com); [tom\\_hurshman@blm.gov](mailto:tom_hurshman@blm.gov); [Raymond\\_Lee@ca.blm.gov](mailto:Raymond_Lee@ca.blm.gov); [dfgpalm@adelphia.net](mailto:dfgpalm@adelphia.net); [tgulessarian@adamsbroadwell.com](mailto:tgulessarian@adamsbroadwell.com); [mjconnor@westernwatersheds.org](mailto:mjconnor@westernwatersheds.org); [gloria.smith@sierraclub.org](mailto:gloria.smith@sierraclub.org); [devorah.ancel@sierraclub.org](mailto:devorah.ancel@sierraclub.org); [joanne.spalding@sierraclub.org](mailto:joanne.spalding@sierraclub.org); [gssilliman@csupomona.edu](mailto:gssilliman@csupomona.edu); [jbasofin@defenders.org](mailto:jbasofin@defenders.org); [atomicoadranch@netzero.net](mailto:atomicoadranch@netzero.net); [gsuba@cnp.gov](mailto:gsuba@cnp.gov); [thansen@cnp.gov](mailto:thansen@cnp.gov); [granites@telis.org](mailto:granites@telis.org); [bbriezee@cc.sbcounty.gov](mailto:bbriezee@cc.sbcounty.gov); [jbyron@energy.state.ca.us](mailto:jbyron@energy.state.ca.us); [jboyd@energy.state.ca.us](mailto:jboyd@energy.state.ca.us); [pkramer@energy.state.ca.us](mailto:pkramer@energy.state.ca.us); [jkessler@energy.state.ca.us](mailto:jkessler@energy.state.ca.us); [dratliff@energy.state.ca.us](mailto:dratliff@energy.state.ca.us); [publicadviser@energy.state.ca.us](mailto:publicadviser@energy.state.ca.us); [docket@energy.state.ca.us](mailto:docket@energy.state.ca.us); [lbelenky@biologicaldiversity.org](mailto:lbelenky@biologicaldiversity.org); [ianderson@biologicaldiversity.org](mailto:ianderson@biologicaldiversity.org)

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December 18, 2009

<b>DOCKET</b>	
<b>07-AFC-5</b>	
DATE	DEC 18 2009
RECD.	DEC 29 2009

**Via Email and Federal Mail**

John Kessler  
Project Manager  
California Energy Commission  
1516 Ninth Street  
Sacramento, California 95814-5512

**Re: Ivanpah Solar Electric Generating System (07-AFC-5)**

Dear Mr. Kessler:

The Desert Tortoise Council is a private, nonprofit organization made up of professionals and lay-persons who share a common interest in wild desert tortoises and the environment they depend upon, and a common commitment to advancing the public's understanding of the desert tortoise and the importance of conserving and recovering this threatened species. The Council, based on its review of the Final Staff Assessment/Draft Environmental Impact Statement (FSA/DEIS), believes that the construction of the proposed Ivanpah Solar Electric Generating System (ISEGS) would conflict with the goals of the *Desert Tortoise Recovery Plan* (1994) to conserve and recover the Mojave Desert Tortoise and would contribute to the likely extirpation of the Northeastern Mojave (NEMO) Desert Tortoise Recovery Unit in the Ivanpah Valley. The Desert Tortoise Council recommends, therefore, that the California Energy Commission select the "No Project/No Action Alternative" with respect to the Application for Certification from BrightSource Energy.

Conflicts With the Recovery Plan

The Mojave Desert Tortoise was listed as a "threatened species" under the Endangered Species Act in 1990 because of the precipitous decline in desert tortoise numbers due largely to human-caused mortality and the destruction and fragmentation of desert tortoise habitat. The construction of ISEGS as proposed by BrightSource Energy will directly contribute to the continued decline of the Mojave Desert Tortoise because 4,073 acres of occupied, high-quality desert tortoise habitat will be permanently lost and because adjacent habitat will be degraded and fragmented.

The ISEGS vicinity is Bureau of Land Management (BLM)-designated Category I Desert Tortoise Habitat, per the "*California Statewide Desert Tortoise Management*

*Policy*,” and is more recently recognized as Category I Desert Tortoise Habitat in the BLM’s Northern and Eastern Mojave (NEMO) Plan Amendment to the California Desert Conservation Area Plan. While the ISEGS site is not within a Desert Wildlife Management Area (DWMA), the *Desert Tortoise Recovery Plan* identifies habitat outside DWMA’s like the ISEGS area as providing corridors for genetic exchange and dispersal of desert tortoises among DWMA’s. As early as the Preliminary Staff Assessment for ISEGS, California Energy Commission staff recognized that the non-lakebed portion of the Ivanpah Valley is excellent desert tortoise habitat and that the “...ISEGS project area provides high quality habitat for this species, with low levels of disturbance and high plant species diversity” (2008, 5.2-30).

The construction of ISEGS would further conflict with the *Desert Tortoise Recovery Plan* goals because the project is likely to result in the death of any number of tortoises in conjunction with the relocation and translocation of animals from the proposed site. At least 38 percent of the monitored tortoises in the 2008 Fort Irwin translocation, for instance, expired. As the Desert Tortoise Scientific Advisory Committee concluded at its meeting of March 13, 2009, “...translocation is fraught with long-term uncertainties...and should not be considered lightly as a management tool.” Even small-scale translocations have had mortality rates in excess of 20 percent.

The importance of the tortoise population at Ivanpah must not be under valued. The annual replacement rate within stable populations of the desert tortoise is estimated to be only about two percent; therefore, adult tortoises must be protected to ensure optimal recruitment of new individuals into the population. This is essential in the northern Ivanpah Valley as the tortoises there are part of NEMO Desert Tortoise Recovery Unit and this population is declining. The most recent *Range-Wide Monitoring Report* (2009) shows that current densities of tortoise within NEMO – at an average of 1.7 animals per square mile -- are the lowest among the six Recovery Units recognized in the *Recovery Plan*. It is not surprising, then, that Kevin Hunting of the Department of Fish and Game writes in his letter of October 27, 2009 to the California Energy Commission:

The Department believes this known population of desert tortoise in its natural habitat within the northern portion of Ivanpah Valley, but outside a DWMA, may be valuable to the recovery of the species for the same reasons stressed in the Recovery Plan.

#### Extirpation of Desert Tortoise

The recent history of the desert tortoise is that entire populations have been extirpated in numerous areas of the Mojave region due to the cumulative impacts of human activities, and the Desert Tortoise Council is deeply concerned that the cumulative impacts of ISEGS and the numerous energy projects planned for the Ivanpah Valley may lead to the extirpation of the Northeastern Mojave (NEMO) Desert Tortoise

Recovery Unit population in the Ivanpah Valley.

The developments that raise our concern are all proposed for construction within the NEMO Recovery Unit, one of the six Desert Tortoise Recovery Units designated in the *Desert Tortoise Recovery Plan*. These populations were previously and appropriately identified based on genetics, behavior, ecology, geographic isolation, and morphology. Since the Recovery Plan was published, a number of studies have compared tortoises between different Recovery Units and confirmed biological differences among the populations. Most recently, “*A Genetic Assessment of the Recovery Units for the Mojave Population of the Desert Tortoise...*” (Murphy, et. al. 2007) presents new evidence that desert tortoises in the Recovery Units constitute distinct populations, confirming the validity of the 1994 Plan’s six Recovery Units. Each of these evolutionary significant population units faces a distinct suite of past and ongoing impacts to tortoises and supporting habitat.

The potential cumulative impacts to desert tortoises and supporting habitat within the Northeastern Mojave Recovery Unit land area is alarming. Direct, indirect and cumulative impacts of the proposed ISEGS project on the desert tortoise include habitat destruction and loss of habitat, take of the NEMO population, population fragmentation, and compromised viability. Should the ISEGS project, the DesertXpress High-Speed Passenger Train, the upgrade of the 35-mile Eldorado-Ivanpah Transmission line, and the proposed OptiSolar (First Solar) power project all become a reality, impacts to the habitat supporting tortoises in this recovery unit may be insurmountable and could endanger this distinct tortoise population. These cumulative impacts are even more staggering when the facilities proposed by Nextlight Renewable Power on 7,840 acres of high quality tortoise habitat in the eastern Ivanpah Valley are factored in.

Simply stated, the future of the Ivanpah Valley desert tortoise population is at risk. The Desert Tortoise Council, therefore, recommends that the California Energy Commission select the “No Project/No Action Alternative” with respect to the BrightSource Energy Application for Certification.

We request that this letter be entered into the record of the California Energy Commission’s Evidentiary Hearings on the ISEGS project.

Sincerely,

*Glenn R. Stewart*

Glenn R. Stewart, Ph.D.  
DTC Board of Directors

## References

California Energy Commission. "Preliminary Staff Assessment. Ivanpah Solar Electric Generating System Application for Certification (07-AFC-5) San Bernardino County." December 2008.

Desert Tortoise Recovery Team, U.S. Fish and Wildlife Service. *Desert Tortoise (Mojave Population) Recovery Plan*. Portland: U.S. Fish and Wildlife Service, 1994.

Murphy, R.W., K. H. Berry, T. Edwards, and A.M. McLuckie. "A Genetic Assessment of Recovery Units for the Mojave Population of the Desert Tortoise, *Gopherus Agassizi*." *Chelonian Conservation and Biology* 6, no. 2 (2007): 229-251.

U. S. Fish and Wildlife Service. *Range-Wide Monitoring of the Mojave Population of the Desert Tortoise: 2007 Annual Report*. Reno, Nevada: Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, 2009.