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GREENPEACE

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7 September, 2010

Hon. Kenneth L. Salazar
Secretary of Interior
1849 C Street, NW
Washington, DC 20240

Governor Arnold Schwarzenegger
State Capitol
Sacramento, CA 95814

Re: Ivanpah Solar Electric Generating System
(07-AFC-CEC-700-2008-013-FSA/DEIS DES-09-46)

Dear Governor Schwarzenegger and Secretary Salazar,

Greenpeace USA supports analysis that shows the United States can transition to an economy run by renewable energy. This energy revolution can occur simultaneous to economic development, and can prove more positive for the economy than growth that continues to rely on fossil fuels for transportation and electricity. By 2050 about 90% of our primary energy demand can be met without fossil fuels. Solar energy must be a part of this national renewable energy portfolio.

Brightsource's Ivanpah Solar Electric Generating System (ISEGS) can help the country begin retiring some of the 600-plus coal-fired power plants, which are the largest source of global warming pollution among a host of pollutants undermining public health. Dry-cooling concentrating solar power plants like ISEGS should be supported upon satisfactory completion environmental risk assessments required by federal and state regulations.

Greenpeace urges that ISEGS, and other renewable energy projects that require thorough environmental review, be given adequate attention so that required safeguard measures or permitting issues are articulated and/or resolved. Right now California imports electricity from coal-fired plants outside the state. ISEGS may be an important part of California's leadership as a state economy embracing clean energy.

Sincerely,

Kyle Ash
Senior Legislative Representative

printed on 100% pcw recycled processed chlorine free paper

s b <pointofusesolutions@gmail.com>
08/06/2010 11:14 AM
To
caisegs@blm.gov
cc

bcc

Subject
Prove cradle to grave emission reductions!

Mr. Hurshman,

As a taxpayer and therefore an owner of the public lands we have hired you to manage responsibly, I vehemently object to this public-lands giveaway to Big Energy companies like Chevron and BP (aka "Bright Source"), who will permanently destroy an ecosystem that is far more valuable than the lousy projects they will use to hijack taxpayers and ratepayers. This means Ivanpah and EVERY OTHER BIG SOLAR, BIG WIND AND BIG TRANSMISSION DISASTER you people are shoving down our throats.

In particular, I am shocked that BLM and CEC are just blithely stating the "fact" that Ivanpah will "reduce greenhouse gas emissions," because (a) nobody has identified a single fossil fuel source that will be shut down or reduced because of Ivanpah and (b) the emissions from the manufacturing, construction, transmission and operations are ENORMOUS, almost certainly greater than any fantasy the BLM and CEC have of emission reductions.

It is absolutely imperative that if BLM and CEC wish to "override" the absolutely crucial environmental protections we, the people, have supported for the past 40 years, that there be a CONCLUSIVE SHOWING OF ACTUAL NET GHG REDUCTIONS from cradle to grave before this permit is issued. Otherwise, it's all just a big LIE and excuse to hand over more of our tax dollars and public land to mercenary energy companies.

The comparison that must be made is to (1) existing natural gas plants for the same net MWh of power (since solar cannot offset baseload like coal) and (2) to the equivalent amount of power produced by PV within the built environment (which is the same or lower cost per MW) and must include major penalties for water use, since water is the next crisis. An actual existing power plant must be permanently decommissioned in order for any "offset" to count, otherwise it's just "more power," which leads to a dramatic INCREASE in GHG emissions.

I absolutely guarantee that you will find that Ivanpah will net out FAR more harm to the planet than the 2 feasible alternatives, while costing taxpayers and ratepayers more money, and the override is not only ethically wrong, but also illegal. DOI's burning desire to give away our country to Chevron and BP should not cloud the truth - that this is being done ENTIRELY to prevent democratic means of clean power production from within the built environment, and not, as claimed, to "save the planet."

One would hope that after the corruption at MMS, the rest of the DOI would get with the program and stop handing over taxpayer assets to Chevron and BP, so how is this boondoggle at Ivanpah slipping through? With the thin veneer of greenwashing afforded by the word "solar?" PLEASE, anyone who knows anything about energy, land use, rare species, water waste, and emissions can tell you this thing is a DISASTER. It's almost as though BLM is trying to accelerate global warming so these same creeps can cash in on the "disaster capitalism" of the Banana Republic this country is fast becoming.

You need to STOP this transparent giveaway of public assets to multinational corporations which are providing NO benefit and are causing ENORMOUS harm to the American Public, your employers.

Sincerely, Sheila Bowers

John Kessler
<Jkessler@energy.state.ca.us>
08/30/2010 08:31 AM

To "Docket Optical System" <Docket@energy.state.ca.us>
cc
bcc
Subject Fwd: Comments on Ivanpah FEIS

Dear Dockets Staff

Please docket this email to Ivanpah (07-AFC-5) and include the following in the file name, "FEIS Comments by Brendan Hughes".

Thank you,
John

John S. Kessler
CEC - Project Manager
Office: 916-654-4679
Cell: 530-306-5920
Fax: 916-654-4421

>>> Brendan Hughes <jesusthedude@hotmail.com> 8/29/2010 12:06 PM >>>

To whom it may concern:
I would like to ask BLM and CEC to deny BrightSource's ROW application to build the Ivanpah Solar Electric Generating System. The applicant, BLM, and CEC have failed to prove that the benefits of this project outweigh its environmental costs, especially in light of the more practical distributed-solar alternative for securing our energy future. For instance, the applicant only knows that at least 25 tortoises inhabit the site. With more extensive surveys, there may be twice or three times that many tortoises, making this higher-quality tortoise habitat than most of the BLM-designated DWMAs. This is an unacceptable loss for this federally-threatened species, and should not be allowed to go forward. BLM and CEC should only further consider the applicant's proposal when a complete tortoise survey has been conducted. Then we will have all the facts to make a more informed decision. BLM and CEC need to make a stand now, and make the statement that solar projects will not be allowed on sensitive habitats.
Thank you for your consideration.
Brendan Hughes61093 Prescott TrailJoshua Tree, CA 92252

sicboy760@aol.com
08/14/2010 10:28 AM
To
caisegs@blm.gov
cc

bcc

Subject
Ivanpah Solar

Greetings,

Hello. My name is Mark Burgum and I am a member of IBEW Local 477. I am commenting today on behalf of myself, not the IBEW, my local, or our membership. I am very pleased to hear of the step forward that the Ivanpah project has taken. This critical step that the CEC has taken gives myself lots of hope for a number of reasons. I am happy to know that our state is taking the necessary steps to produce clean energy. I am aware that the size of this project can have a slight impact on local enviroments, but, as the commitee concluded, in the long run, the good that this project will produce definately out-weighs the bad. I am happy to know that the men and women constructing this project will be, for the most part, Californian. That means that people like myself, living in southern California, will have an opportunity to take on a long-term, good paying job, enabling us to purchase property such as homes and new vehicles. The money put into the pockets of most of the craftsmen constructing the project will also be spent here in California.

After feeling and witnessing the effects of the recession, I would like to encourage more and more companies to construct clean energy facilities, not only here in my area, but all over the country. As long as the local enviroments do not get devastated, projects like Ivanpah will put people to work, generating revenue in the areas in which the projects are being constructed. In the wake of energy disasters like the oil spill in the gulf, I believe the time is right to get projects like Ivanpah up and running, so our way of life can continue normally, under renewable sources. A solar plant cannot cause an oil spill.

I, myself, am ready and willing to show up to the Ivanpah project and give 100% effort, 100% of the time. If our local building trades can produce on a project of this magnitude, it will only open more doors, for more approved projects, keeping men and women employed, and taking the necessary steps towards a state that is running off of renewable sources. I, like many others, will be very proud to put in a days work, for a days pay, and being a crucial part of California's economic and enviromental recovery.

Thank you for your time.

Mark Burgum
Journeyman Wireman, IBEW Local 477

Special Rapporteur on the Situation of human rights and fundamental freedoms of indigenous people c/o OHCHR-UNOG,Office of the High Commissioner for Human Rights, Palais Wilson, 1211 Geneva 10, Switzerland
E-mail: indigenous@ohchr.org

President Barack Obama
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500
Facsimile: (202) 456-2461

U.S. Department of the Interior-By US mail
Secretary of the Interior
Ken Salazar
1849 C Street, N.W.
Washington DC 20240

Recovery.gov
Recovery Accountability and Transparency Board
Attention: Hotline Operators
P.O. Box 27545
Washington, D.C. 20038-7958
Facsimile: (877) 329-3922
E-mail: Ray.Madden@hq.doe.gov

Docket No. 07-AFC-5-By US mail
Comments on the PMPD
Energy Commission's Docket Unit,
1516 Ninth Street, MS-4,
Sacramento, CA 95814

Attn: ISEGS, George Meckfessel,
Planning and Environmental Coordinator,
Bureau of Land Management,
Needles Field Office,
1303 South Highway 95,
Needles, California 92363
E-mail: ca690@ca.blm.gov

Tom Hurshman, Project Manager-By US mail
Bureau of Land Management,
2465 South Townsend Avenue,
Montrose, Colorado 81401
Phone (970) 240–5345;
E-mail: caisegs@blm.gov
Protests: Brenda_Hudgens-Williams@blm.gov

CAlifornians for Renewable Energy, Inc. (CARE) respectfully files this complaint and protests to the Ivanpah Solar Electric Generating System (ISEGS) Final Environmental Impacts Statement (FEIS) and associated proposed amendment to BLM's California Desert Conservation Area (CDCA) Plan.

I wish to file a complaint and protest against the California-based concentrating solar power (CSP) developer BrightSource Energy, the California Energy Commission (CEC), the United States Department of Interior Bureau of Land Management (BLM) and the United State Department of Energy (US DOE) for violating my human rights to fast track the development of large industrial solar thermal electric projects that will literally pave over hundreds of square kilometers of undeveloped wilderness whose entire landscape (including this project's site) is considered sacred to the Mojave, Paiute, and Chemehuevi peoples.[1]

Introduction

A vast wilderness lands held in trust by the Federal government for native peoples through the Bureau of Land Management (BLM) are threatened with industrial development where literally hundreds of square miles of wilderness areas will be paved over for solar farms were these same officials can not guarantee the solar farms will even work. Fast-track projects are those where the companies involved have demonstrated to the BLM that they have made sufficient progress to formally start the environmental review and public participation process. These projects are advanced enough in the permitting process that they could potentially be cleared for approval by December 2010, thus making them eligible for economic stimulus funding under the American Recovery and Reinvestment Act of 2009.

Comments on Final EIS and proposed amendment to BLM's California Desert Conservation Area (CDCA) Plan

Final EIS is pre-committing to a certain plan prior to conducting an independent environmental review

The Final EIS is pre-committing to a certain plan prior to conducting an independent environmental review [SA/EIS] which violates the public participation requirements under the California Environmental Quality Act (CEQA), and the National Environmental Policy Act (NEPA). The project requires an EIS because it involves land that is currently owned by the Federal Government.

> "The Cities of Vernon and Compton [] and others filed petitions for writ of mandate to challenge the certification of an environmental impact report as to a portion of the redevelopment plan of the City of Long Beach for the Long Beach Naval Station. <u>The Superior Court ordered the writ issued on the ground that certification of the final environmental impact report (FEIR) was a "post hoc rationalization" of a prior approval of the project</u>...."[2]

[1] The video with the background info on our struggle for justice is at: http://www.vimeo.com/13985034
[2] See http://ceres.ca.gov/ceqa/cases/1998/vernon.html

"Failure to follow the NEPA process of evaluation of actions, public involvement, and decision maker consideration of full information, before actions are taken, is what is called a procedural lapse in implementation of the NEPA process. Some portion of the NEPA process has been left out or a short cut taken.

Timing - Premature selection and commitment to proposed action resulting in a "pre-decision" or preparing the NEPA document after the applicant has begun implementation of the project thus negating the intent of the law. Sometimes called post facto documentation or informally, NEPA backfill. The lapse directly relates to the need to treat NEPA compliance as a process rather than a document and includes consideration of the environment and public input before decisions at a local level are finalized or before action is taken. This lapse emphasizes the need for applicants, state, and federal officials involved to be educated on the process."[3]

Inadequate No-action Alternative

The Final EIS alternatives analysis is in adequate because it fails to properly provide for a no action alternative. Pursuant to NEPA (40 CFR 1505.1(e)), a reasonable range of alternatives must be examined in the Draft EIR/EIS, and were selected based on the following criteria: (1) the alternative's potential to meet the Proposed Action's purpose and need; (2) the feasibility of the alternative; and (3) the alternative's ability to avoid or lessen adverse effects of SCE's Proposed Project. As required under NEPA Section 1502.14(d), a No Action Alternative must also be considered." The BLM's No-action alternative is improper because it relies on approval of the (EITP) Eldorado-Ivanpah Transmission Project another ARRA Fast Track project.[4] This is an example of improper baseline information because this assumes there are generation facilities to be interconnected and there is no evidence to this effect.

When federal agencies decide on project proposals, "[n]o action . . . would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward."[5] The Ninth Circuit has held that "consideration of the alternatives requirement . . . guarantee[s] that agency decision-makers have before them and take into proper account all possible approaches to a particular project (*including total abandonment of the project*)."[6] An example of similar evasion appears in *Center for Biological Diversity*, where the BLM approved a land exchange giving Asarco fee ownership of land it intended to mine.[7] BLM based approval on the assumption that mining would occur in the same way with or without the land exchange, because Asarco

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[3]Seehttp://www.fema.gov/library/file?type=publishedFile&file=nepa_desk_reference.pdf&fileid=78c5f760-0026-11dd-baa4-001185636a87

[4] See http://www.blm.gov/ca/st/en/prog/energy/fasttrack/Eldorado_Ivanpah.html

[5] Forty Most Asked Questions Concerning CEQ's NEPA Regulations, 46 Fed. Reg. 18026, 18027 (March 23, 1981).

[6] *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 785 (9th Cir. 2006) (emphasis in original).

[7] *Ctr. for Biological Diversity v. U.S. Dept. of Interior*, 581 F.3d at 1065.

already held mining claims on the selected lands.[8] But BLM's evaluation of its no-action alternative was improper.[9] The Ninth Circuit reasoned that BLM improperly assumed that the no action alternative would result in the same outcome as the other action alternatives would.[10] In reality, however, without the land exchange, BLM would have had to require Asarco to comply with mining law, including submitting mining-operation plans for approval to use the land under certain circumstances.[11] By contrast, Asarco's fee land-ownership under the preferred alternative would have removed those regulatory requirements. Thus, in describing its no-action alternative, BLM failed to give an accurate portrayal of the status quo for a meaningful comparison of alternatives.[12] Just as the defendant in *Center for Biological Diversity* developed an unlawful no-action alternative by improperly characterizing the regulatory context under the status quo, the FEIS no-project alternative inaccurately portrayed the proposed project developer's entitlements in the regulatory context. Some examples of evidence of this unlawful pre-commitment from the No-action alternative section of the FEIS are as follows:

> *In the absence of the ISEGS project*, however, *other power plants, both renewable and nonrenewable, <u>would have to be constructed</u> to serve the demand for electricity*. If the No Action alternative were chosen, *<u>other solar renewable power plants may be built, and the impacts to the environment would likely be similar</u> to those of the proposed project because solar renewable technologies require large amounts of land and similar slope and solarity requirements as the proposed ISEGS project*. The No Action alternative *<u>may also lead to siting of other non-solar renewable technologies to help achieve the California Renewable Portfolio Standard</u>*.
>
> Additionally, if the No Action alternative were chosen*<u>, it is likely that additional gas-fired power plants would be built or that existing gas-fired plants could operate longer</u>*. If the project were not built, *California would not benefit from the reduction in greenhouse gases that this facility would provide. PG&E would not receive the 300-MW contribution to its renewable state-mandated energy portfolio and SCE would not receive the 100-MW renewable energy contribution*.
>
> *California's Renewable Portfolio Standard has been implemented to reduce greenhouse gas emissions from gas- or coal-fired power plants*. While the ISEGS project as proposed would have substantial impacts as a result of the extent of its disturbance, the facility is proposed to be located in an area of the desert that is not protected for specific wildlife species or for its wilderness values. In addition, substantial other development is proposed in the Ivanpah Valley. In the absence of the ISEGS project, other

[8] *Id.* at 1074-75.
[9] *Id.*
[10] *Id.*
[11] *Id.* at 1065.
[12] *Id.* at 1074-75.

> renewable or gas-fired power plants would likely be constructed to serve the electricity demand that could be met with the ISEGS project. *Given these factors and the importance of solar technology as a tool in reducing greenhouse gases, the No Action alternative is not superior to the proposed ISEGS project*." [*Emphasis* added] [FEIR at 3-46.]

Clearly the failure to include the High DG alternative is an unlawful attempt to minimize the impacts of the project by not considering a reasonable range of alternatives as demonstrated by the AFC's improper assumption that under its No-Project alternative *presumably natural gas-fired generation* will be required to supply generation capacity if the project is not approved.

Clearly such finding would be erroneous since whenever an agency approves a major action that may affect the environment, it must comply with NEPA. NEPA "establishes 'action-forcing' procedures that require agencies to take a 'hard look' at environmental consequences," including, in many cases, preparation of an EIS.[13] In addition to analyzing the proposed agency action, an EIS must "'[r]igorously explore and objectively evaluate all reasonable alternatives' to [the proposed] action. The analysis of alternatives to the proposed action is 'the heart of the environmental impact statement.'"[14]

PD and FEIR fail to include the High DG alternative

The FEIS improperly excludes the High DG alternative. The FEIS states at 3-83, "However, achieving 400 MW of distributed solar PV or solar thermal would depend on additional policy support, manufacturing capacity, and lower cost than currently exists to provide the renewable energy required to meet the California Renewable Portfolio Standard requirements so additional technologies, like utility-scale solar thermal generation, are also necessary."

515 MW of PV solar DG[15] has been denied access to sell its capacity in to the markets. Additionally, the CPUC and CAISO have erected barriers to entry by small DG PV solar in to the ancillary services markets for avoided costs of natural gas, and emissions, including but not limited to; criteria pollutants credits; other greenhouse gas emission credits[16]; and renewable energy credits ("REC")s based on specific environmental

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[13] *Center for Biological Diversity v. U.S. Dept. of Interior*, 581 F.3d 1063, 1071 (9th Cir. 2009) (internal citations omitted).

[14] *Id.*; 40 C.F.R. § 1502.14 (2009).

[15] See California Public Utilities Commission's California Solar Initiative team Annual Program Assessment to the Legislature June 30, 2009. http://docs.cpuc.ca.gov/PUBLISHED/GRAPHICS/103173.PDF Highlights of the report include: California has over half a gigawatt of solar connected to the electric grid at customer sites. With recent rapid growth, California now has over 515 megawatts (MW) of cumulative installed solar photovoltaic (PV) capacity at nearly 50,000 sites,[] including 226 MW installed under the CSI Program.[] The non-CSI Program solar PV capacity was installed primarily under prior solar programs, including the Self-Generation Incentive Program (SGIP) and the Emerging Renewables Program (ERP).

[16] Although the Commission's authority includes recovery of certain costs associated with environmental compliance through wholesale rates, the Commission does not directly regulate air emissions. The Commission is taking action consistent with climate change concerns, including removing regulatory barriers to increased development of renewable energy and enabling more effective demand response. In

attributes of specific types and technologies of renewable energy resource. Purportedly the California Solar Initiative "['CSI'] Program focuses exclusively on onsite, grid-connected solar that is used by electric customers that want to offset some portion of their own load by installing self-generation. The CSI Program does not fund wholesale solar power plants, designed to serve the electric grid or help utilities meet Renewable Portfolio Standard ('RPS') obligations"[17] and this policy has created undue prejudice or disadvantage to any sale of electric energy for resale in interstate commerce of small Distributed Generation ("DG") PV solar located near to the load centers.[18]

By excluding the High DG alternative the FEIS perpetrates disparate impacts i.e., in the form of socioeconomic discrimination on low-income communities of color in the load centers where fossil fuel power plants are currently located that emit emissions that are harmful and endanger the public. This represents a distinct "community value" that supports locating solar PV generation near load centers where transmission upgrades may not be needed. Building transmission projects to connect ISEGS that will require nearly the same amount of fossil fuel combustion turbines for backup power during periods of peak demand is the antithesis of this "community value" that has not been examined in the FEIS.

NEPA requires full consideration of "appropriate" alternatives. [42 USC § 4332(2)(E)] Included with the appropriate alternatives must be the "no action" alternative [40 CFR § 1502.14(d)] The evidentiary record demonstrates the FEIS's "preferred alternative" as discussed in this FEIS the Mitigated Ivanpah 3 Alternative is not superior to the High DG option identified in the California Public Utilities Commission's 33% Renewables Portfolio Standard Implementation Analysis Preliminary Results (June 2009). It concludes at page 59 "[a] high DG strategy could facilitate achieving a 33% RPS in 2020 as well as mitigate some of the need for transmission and transform the market for solar PV technologies." The report goes on to provide Table 14 a Comparison of 33% RPS Cases Across RPS Policy Objectives demonstrating that the High DG scenario is the best "fit" to achieving RPS compliance with the highest rating of the scenarios analyzed.

On June 12, 2009 the California Public Utilities Commission (CPUC) Energy Division released its *33% Renewables Portfolio Standard Implementation Analysis Preliminary Results*.[19]

> California lawmakers are currently developing legislation to increase the current 20% by 2010 Renewables Portfolio Standard (RPS) to 33% by 2020. The California Public Utilities Commission (CPUC) and California Energy Commission (Energy Commission) have endorsed this change and it

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addition, Commission staff studies federal, state, and regional greenhouse gas initiatives to consider the implications of such initiatives for the Commission and the wholesale energy markets it regulates.

[17] Annual Program Assessment to the Legislature June 30, 2009 at page 5.

[18] The California utilities contract for a variety of renewable resources including industrial wind, and industrial solar as part of the RPS Program, but exclude counting over 515 megawatts (MW) of cumulative installed solar photovoltaic (PV) towards RPS compliance. Updates on the progress of the RPS program can be found at http://www.cpuc.ca.gov/PUC/energy/Renewables/

[19] You can access this report at http://docs.cpuc.ca.gov/PUBLISHED/GRAPHICS/102354.PDF.

> is a key greenhouse gas (GHG) reduction strategy in the California Air Resources Board's (ARB) Assembly Bill (AB) 32 Scoping Plan. As the principal agency responsible for implementing the current RPS program, the CPUC has learned many lessons that can help guide the design of a higher mandate. In addition, several recent analyses have cast light on various aspects of renewable energy development and integration. Drawing on these resources and new analyses, staff at the CPUC developed this report in order to provide new, in depth analysis on the cost, risk, and timing of meeting a 33% RPS. This report does not recommend a preferred strategy on how to reach a 33% RPS, but rather provides an analytical framework for policymakers to weigh the tradeoffs inherent in any future 33% RPS program for California. [Executive Summary]

In regards to the High DG scenario the report concludes at page 59 "[a] high DG strategy could facilitate achieving a 33% RPS in 2020 as well as mitigate some of the need for transmission and transform the market for solar PV technologies." The report goes on to provide Table 14 a *Comparison of 33% RPS Cases Across RPS Policy Objectives* and Table 14 demonstrates that the High DG scenario is the best "fit" to achieving RPS compliance with the highest rating of the scenarios analyzed. [The Report's footnote 41 text notes] "[t]his study only preformed an implementation analysis on the 33% RPS Reference Case. Thus, evaluation of other cases for all criteria (except for cost and GHG reductions) is based on a qualitative analysis drawing from over seven years of experience in implementing the RPS program."

Table 14. Comparison of 33% RPS Cases Across RPS Policy Objectives[41]

Policy Objective	33% RPS Reference Case	High Wind Case	High Out-of-State Delivered Case	High-DG Case
Cost	◒	●	●	○
Timing	○	◒	◒	◒
GHG Emission Reductions	●	●	●	●
Resource Diversity	●	●	●	●
Local Environmental Quality Air Quality	●	◒	○	●
Local Environmental Quality Land Use	○	◒	◒	●
Economic Development	◒	◒	○	◒
Long-Term Transformation	●	○	○	●
Technology Development Risk	○	●	●	○

Legend:

● Case performs well ○ Case performs poorly ◒ Case is neutral

To comply with its obligations under NEPA, an agency must analyze an adequate range of reasonable alternatives. The PD and FEIR failed to engage in a sufficient alternatives analysis in three ways. First, it did not re-evaluate the range of feasible alternatives in light of the project purpose. Second, the range of alternatives considered by the Commission was unreasonable because it failed to consider the High DG alternative. Third, the analysis of the No Action Alternative was flawed. Therefore, the proposed No-Project alternative is inconsistent with the requirements of NEPA, and the agency must redo the study and allow public comment on a reasonable range of alternatives.

The FEIS fails to identify the High DG alternative as preferred to the project so therefore the NEPA analysis must provide for a feasible No action and/or CEQA No-Project alternative which when combined with the High DG alternative should be environmentally superior to the proposed project. Essentially as proposed the applicant argues the proposed project is environmentally superior to doing nothing. Such a finding violates the NEPA and CEQA requirements to analyze the No action / No-Project alternative and are nonsensical since the AFC failed to properly consider the "appropriate" alternatives" including the High DG alternative. Therefore final environmental analysis should consider the "appropriate" alternatives" including the High DG alternative and the No-Action alternative.

Loss of irreplaceable ecological resources

The BLM's Renewable Energy Fast Track Projects website[20] lists 9 solar thermal projects in various stages of application or permitting along the Colorado River with another 15 or more projects slated for Arizona. Impacts on desert ecosystems, habitat and bio-resources are incalculable. As the Gold Rush of 1848 left a toxic legacy of mining tailings whose impact is measurable over 150 years later, Large Thermal Solar Developments will create impacts that will similarly be long term and disastrous.

a. Grading of desert surfaces
b. Use of scarce water for cooling and cleaning panels
c. Interruption of animal migration patterns
d. Reflectivity and potential atmospheric effects
e. Impacts to watersheds
f. Impacts to plant material and natural indigenous pharmacological resources
h. Net effects on CO_2 sinkage and release

These impacts have not been studied to the degree to inspire confidence. Under the ARRA Fast Tracking process, Environmental Impact Statements have been quickly prepared. Answers are supplied by the Applicant in many cases before the questions can be asked. What are the effects of construction stripping the desert of its surface over major areas of virtually undisturbed wilderness?

Under the National Environmental Policy Act the relationship between the tribes and the United States can be described as government-to -government. The status of tribes has been described as that of "domestic dependent nations," and, as such, their sovereignty

[20] See http://www.blm.gov/ca/st/en/prog/energy/fasttrack.html

pre-dates the founding of the United States. Therefore the destruction of lands used by and sacred to tribes are subject to the tribes' rights of first refusal to protect their use of those lands and prohibit the development of those land held in trust for the tribes by the United States.

While researching the Section 106 consultation process I found the process handbook from the Advisory Council on Historic Preservation (ACHP).[21]

It seems to indicate the FEIS and amended CDCA Plan adopted by BLM with CEC and the project Applicant purportedly in government to government consultations pursuant to Section 106 by the BLM with Indian tribes is unlawful since they rely on authorizing the Applicant to conduct specific identification efforts for this undertaking by allowing the Applicant to retain an archaeological consultant to complete all of the investigations necessary to identify and evaluate cultural resources located within the Area of Potential Effect (APE) for both direct and indirect effects.

Can applicants for federal permits or contractors hired by the agency initiate and carry out tribal consultation?

No, federal agencies cannot unilaterally delegate their responsibilities to conduct government-to-government consultation with Indian tribes to non-federal entities. It is important to remember that Indian tribes are sovereign nations and that their relationship with the federal agency exists on a government-to-government basis. For that reason, some Indian tribes may be unwilling to consult with non-federal entities associated with a particular undertaking. Such non-federal entities include applicants[] for federal permits or assistance (which would include any contractors hired by the applicant), as well as contractors who are not government employees but are hired to perform historic preservation duties for a federal agency. In such cases, the wishes of the tribe for government-to-government consultation must be respected, and the agency must carry out tribal consultation for the undertaking. [Page 16 to 17]

Complaint and Protest

The proposed action evaluated within this Environmental Impact Statement (EIS) is the construction and operation of the Ivanpah Solar Electric Generating System (ISEGS) project, a proposed solar-thermal electricity generation facility located on public lands managed by the Bureau of Land Management (BLM) in San Bernardino County, California. The EIS represents the environmental review document developed by the BLM that relied on the Applicant's consultants and their biased analysis to evaluate potential impacts associated with the proposed action. The EIS also functions as the environmental evaluation of a proposed amendment to BLM's California Desert Conservation Area (CDCA) Plan, which would identify the ISEGS site within the Plan.

Solar Partners I, LLC; Solar Partners II, LLC; Solar Partners IV, LLC; and Solar Partners VIII, LLC, which are subsidiaries of BrightSource Energy, Inc. (applicant or BrightSource Energy), a company based in Israel filed an Application for Certification (AFC) (07-AFC-5) for the proposed ISEGS. The proposed ISEGS project and related

[21] See http://www.achp.gov/regs-tribes2008.pdf

facilities are under the Energy Commission's jurisdiction and require certification by the California Energy Commission to operate the facility. As the proposed project would be located on public land, BrightSource Energy has also filed an application to BLM for a land use Right-of-Way pursuant to the Federal Land Policy and Management Act (FLPMA). Under FLPMA Title V (Rights-of-Way), the Secretary of Interior is authorized to grant rights-of-way for the purpose of allowing systems for generation, transmission, and distribution of electric energy. BrightSource Energy has also applied to the U.S. Department of Energy (DOE) for a loan guarantee pursuant to Title XVII of the Energy Policy Act. The project would be developed in three phases, known as Ivanpah 1, 2, and 3. The application for a loan guarantee for Ivanpah 1 was made in November 2008, and the application for Ivanpah 2 and 3 was made in February 2009.

BrightSource Energy has also applied to the U.S. Treasury Department for Payments for Specified Energy Property in Lieu of Tax Credits under §1603 of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5). This program offers a grant (in lieu of investment tax credit) to receive funding for 30% of the total capital cost at such time as a project achieves commercial operation (currently applies to projects that begin construction by December 31, 2010 and begin commercial operation before January 1, 2017).

This EIS examines the environmental and public health and safety aspects of the proposed project, based on the information provided by the applicant, that received through public comment, and that received from other sources available at the time the EIS was prepared. The EIS contains analyses required as part of an EIS prepared under the NEPA.

California lawmakers are currently developing legislation to increase the current 20% by 2010 Renewables Portfolio Standard (RPS) to 33% by 2020. The California Public Utilities Commission (CPUC) and California Energy Commission (Energy Commission) have endorsed this change and it is a key greenhouse gas (GHG) reduction strategy in the California Air Resources Board's (ARB) Assembly Bill (AB) 32 Scoping Plan.

While the goal of greenhouse gas reduction is worthy, these large scale plants pose other dilemmas, from the water use required by the "Ivanpah" plant, to potential displacement of endangered species, and possible destruction or diminishment of Native sacred sites.

In a desert, which some claim as part of the Colorado River Basin drainage, the project would use a wet cooling tower for power plant cooling. Water for cooling tower makeup, process water makeup, and other industrial uses such as mirror washing would be supplied from on-site groundwater wells. Project cooling water blowdown will be piped to lined, on-site evaporation ponds. Electrical power would be produced using steam turbines fed from solar steam generators. The solar steam generators receive heated transfer fluid from solar thermal equipment comprised of arrays of parabolic mirrors that collect energy from the sun. The applicant has no entitlement to Colorado River water but our neighbor Mexico is entitled to one point five million acre feet annually and the United States has failed to deliver on its allocation under a Treaty with Mexico.

The land is home to various endangered species of plants and wildlife, and to the Desert Tortoise. But human beings have also lived at the foot of these peaks for a very long time. The Palen Mountains are sacred to the Native Americans and in Nahuatl they are called "Hue-Hue-Talpallan" which means Hue (Ancient), Hue (Ancient), Talpallan (Reddish Earth) altogether this means "The Ancient, Ancient Reddish Earth"

The area is also home to Native petroglyphs, ancient trails, springs and a way of life and cosmological orientation that derives its symbolism and power from the very mountains which ring the valley to be paved over by the plant. The tribal community whose heritage is at state is the Chemehuevi, or NuVuu. The NuVuu are Ute Aztecan, and this is where it gets interesting. The area is known as La Cuna de Atzlan, or the Cradle of Atzlan. Local indigenous leaders proclaim the landscape itself to be the source of the imagery of the Aztec calendar.

Atzlan is referred to in the "Book of the Hopi" as the creation site of the people. Mexican historian and Professor Emeritas of the Autonomous University of Baja California, Dr. Celso Aguirre Bernal, has stated that in their wanderings, the Aztecs left other remnants of their civilization, founding such modern tribes as the Hopi and the Colorado River Indian Communities. These and many other Southwestern tribes refer to the Aztecs as the Hohokam, or "Those who are gone."

Fast-track projects are those where the companies involved have demonstrated to the BLM that they have made sufficient progress to formally start the environmental review and public participation process. Many of these companies are non-US-owned, such as Solar Millennium, a subsidiary of a German company. BrightSource is a company based in Israel and more than two thirds of its employees are employed there.

On August 4, 2010 the California Energy Commission's siting committee gave its approval of BrightSource's 392-MW Ivanpah power plant in the Mojave Desert.[22] The project has undergone a number of changes in the last year due to siting and environmental concerns. The backing of the CEC's siting committee makes it very likely that the regulatory agency will allow the project to go ahead. The CEC is expected to make its final decision in the next month.

The second big development for the company came in August when the Bureau of Land Management issued its final environmental impact review on the Ivanpah plant.[23] The BLM said that the project – which was scaled down by 48 MW this February due to possible impacts on wildlife – was the best proposed option so far. The BLM has also put it on the “fast track” list of projects, which should speed up the permitting and development process.

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[22] http://www.energy.ca.gov/sitingcases/ivanpah/notices/2010-08-24_Cmte_conference+Evidentiray_hearing.html

[23] http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/needles/lands_solar.Par.19048.File.dat/1-CDCA-Ivanpah-Final-EIS.pdf

These two announcements come after February 22, 2010 when BrightSource Energy, Inc., developer of utility-scale solar thermal power plants, announced the U.S. Department of Energy has conditionally committed to provide $1.37 billion in loan guarantees to support the financing of BrightSource's Ivanpah Solar Electric Generating System. BrightSource proposes to develop three solar thermal power plants and shared facilities in close proximity to the Ivanpah Dry Lake, in San Bernardino County, California on federal land managed by the Bureau of Land Management (BLM). The proposed project would be constructed in three phases: two 100-megawatt (MW) phases (known as Ivanpah 1 and Ivanpah 2) and a 200-MW phase (Ivanpah 3).

These actions by the CEC, BLM, and US DOE all violated the civil rights of US workers based on their national origin and Native Americans in particular since the project is to be located on what is a sacred wilderness area to the local indigenous tribes, the Mojave, Paiute, and Chemehuevi.

My complaint alleges these actions by the CEC, BLM, and US DOE violate Title VI of the Civil Rights Act of 1964 that no person in the United States shall be excluded from participation in or otherwise discriminated against on the ground of race, color, or national origin under any program or activity receiving Federal financial assistance.

I attended the U.C. Berkeley's Cleantech Institute in June 2010. BrightSource made a presentation (attached) that I believe supports my Complaint against the project discriminating against me personally as an unemployed Sr. Manufacturing Engineer since my national origin is in the United States. Slide 4 of the attached shows that BrightSouce currently employees 55 FTEs in the US and 135 FTEs in Israel. Slide 16 shows that BrightSource based in Israel is the major supplier of the mirrors, sun trackers, software and integration hardware for the project except for the steam turbines whose manufacturer is Siemens a German manufacturer. I wish to object to Slide 17 specifically since it demonstrates more than 75% of the debt to finance Ivanpah project is backstopped by taxpayer stimulus funds... with a 30% tax grant up front.. but, the Civil Rights Act of 1964 prohibits the use of federal funds by entities that would clearly discriminate against American workers since less than 30% of the jobs involved for the Ivanpah project go to US workers. I note that a presenter at the Cleantech Institute event working for ARPA-E said that no more than 10% of their funds could be spent outside the United States.

In behalf of the Mojave, Paiute, and Chemehuevi peoples I complain that the project adversely impacts Native American cultural resources and sacred sites and that the federal government has a duty to conduct government to government consultations with Native American tribes impacted by the project and the BLM has failed to do so which violated Title VI of the Civil Rights Act of 1964. I also complain that the project would not provide any jobs to Native Americans.

Conclusions

The Gold Rush of 1848 resulted in the economic, cultural and physical destruction of Native peoples, families and communities. The introduction of Large Thermal Solar,

under the auspices and processes of the fast tracked ARRA Recovery Act Stimulus Program will kill the tribes as a political force and as economic competition in the State of California if allowed to go forward. We have to act quickly to challenge this new exploitation of the peoples in the territories of indigenous cultural groups. It is up to us to make this happen.

Respectfully submitted,

Michael E. Boyd

_____

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September 4, 2010

CENTER *for* BIOLOGICAL DIVERSITY *Because life is good.*

protecting and restoring natural ecosystems and imperiled species through science, education, policy, and environmental law

via email and overnight mail

September 2, 2010

George Meckfessel,
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caisegs@blm.gov

Re: Comments on Proposed California Desert Conservation Area Plan Amendment and Final Environmental Impact Statement for the Ivanpah Solar Electric Generating System, San Bernardino County, California

Dear Mr. Meckfessel,

On behalf of the Center for Biological Diversity's 255,000 staff, members and on-line activists in California and throughout the western states, we submit these comments on the Final EIS ("FEIS") for Ivanpah Solar Electric Generating System (hereinafter "proposed project" or "ISEGS").

The development of renewable energy is a critical component of efforts to reduce greenhouse gas emissions, avoid the worst consequences of global warming, and to assist California in meeting emission reductions set by AB 32 and Executive Orders S-03-05 and S-21-09. The Center for Biological Diversity (the "Center") strongly supports the development of renewable energy production, and the generation of electricity from solar power, in particular. However, like any project, proposed solar power projects should be thoughtfully planned to minimize impacts to the environment. In particular, renewable energy projects should avoid impacts to sensitive species and habitat, and should be sited in proximity to the areas of electricity end-use in order to reduce the need for extensive new transmission corridors and the efficiency loss associated with extended energy transmission. Only by maintaining the highest environmental standards with regard to local impacts, and effects on species and habitat, can renewable energy production be truly sustainable.

The Center submitted scoping comments on November 30, 2007, detailed comments to the BLM on the Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment for the ISEGS on February 10, 2010 along with references and detailed comments on the Supplemental DEIS submitted June 1, 2010 along with references. We incorporate those comments herein in full.

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The Center is a non-profit environmental organization with more than 255,000 members and online activists, including many members who live and recreate in California. The Center uses science, policy and law to advocate for the conservation and recovery of species on the brink of extinction and the habitats they need to survive. The Center has and continues to actively advocate for increased protections for species and habitats in the California deserts on lands managed by the BLM within the CDCA including the desert tortoise, bighorn sheep, and rare plants, which will be affected by the proposed project. The Center has worked to ensure robust conservation in the CDCA for many years including participating in the process for approval of the bioregional plans within the CDCA. The Center's board, staff, and members use the lands and waters within the CDCA planning area, including the lands and waters that would be affected by the proposed Project, for quiet recreation (including hiking and camping), scientific research, and aesthetic pursuits.

The Center's interests also include interests in science-based conservation planning in the California desert on BLM lands and others. To that end, the Center is a stakeholder participant in the Desert Renewable Energy Conservation Plan process, where appropriate siting of renewable energy projects is a key focus, and the Center has provided scoping comments on the BLM's Solar Programmatic EIS.[1]

The agency preferred alternative for the proposed project would cover approximately 4,073 acres (approximately 6.4 square miles) of pristine desert scrub on public lands that are prime habitat for the threatened desert tortoise, is home to a suite of rare plants, and provides foraging habitat bighorn sheep. FEIS at Section 4.3.1. The Center is concerned that the environmental review pursuant to NEPA, the FLPMA compliance, and the ESA compliance for this proposed project have been rushed and are inadequate to provide full and fair public review and participation. In addition, the Center is concerned that the lack of prior planning by BLM for siting of this proposed project and others could undermine the conservation goals of the CDCA Plan as a whole, create a *de facto* industrial solar zone in the Ivanpah Valley, undermining recovery of the desert tortoise in this area. As a result, if the plan amendment for the proposed project is approved (particularly along with other connected actions including the Eldorado-Ivanpah Transmission Project and the Silver State solar projects in Nevada – on BLM managed lands just across the state border) it will result in industrial sites sprawling across the Ivanpah Valley in currently occupied high-quality desert tortoise habitat that should be protected to achieve the necessary conservation for this threatened and declining species and other goals of the bioregional plan as a whole.

The proposed plan amendment would allow an industrial-scale solar power plant to be built on public lands that are occupied habitat for imperiled species, which is not consistent with

[1] The Center also provided comments to the BLM on the NEMO plan amendment to the CDCA plan on November 1, 2001, and protested the proposed amendment on September 27, 2002. In the comments and the protest the Center specifically addressed the fact that the Desert Tortoise Recovery Plan identified the need to protect sufficiently large areas as DWMA—as the BLM is aware this area was clearly identified as proposed DWMA in the recovery plan. Unfortunately, the BLM ignored the Center's comments and protest and failed to protect the desert tortoise population and habitat in the North Ivanpah valley as part of the DWMA leaving this important habitat vulnerable to a project such as the one proposed here that will destroy significant amounts of occupied desert tortoise habitat and fragment large areas of the then-remaining habitat.

the CDCA plan or FLMPA. The decision to adopt the plan amendment is not based on adequate environmental review as required by NEPA (including failure to provide adequate response to public comment); and the decision to adopt the plan amendment is not consistent with BLM's policies and agreements regarding conservation of listed species and rare plants.

The Center has provided detailed comments previously showing that the proposed decision to adopt the plan amendment is wrong because it is inconsistent with the law and BLM has not undertaken adequate environmental review. A concise statement of those reasons is provided below.

- Adoption of a plan amendment to allow a large-scale industrial facility on MUC class L lands is inappropriate. Under the CDCA Plan, Multiple-use Class L (Limited Use) "protects sensitive, natural, scenic, ecological, and cultural resources values. Public lands designated as Class L are managed to provide for generally *lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished*." CDCA Plan at 13 (emphasis added). While the CDCA Plan does allow for amendments to the plan to accommodate solar energy production where appropriate, the environmental review for this project shows that clearly this site is inappropriate and that the site configuration will maximize impacts to surrounding public lands and resources due to fragmentation and edge effects. The proposed project is a high-intensity, single use of resources that will displace all other uses and that will significantly diminish over 4,000 acres of excellent occupied desert tortoise habitat and destroy habitat for many rare plants among other direct and indirect impacts of the proposed project. Moreover, the project is connected to a powerline upgrade and the Silver State solar projects which, taken together, will become a magnet for even more industrial-scale solar projects in the area leading to even more destruction of desert tortoise habitat due to direct effects, fragmentation, and edge effects. This larger question—the creation of a *de facto* solar industrial zone in the Ivanpah Valley—has not been adequately considered by BLM in the environmental review for this proposed CDCA Plan amendment nor for either of the other connected projects currently undergoing environmental review. The Center protests that the proposed project is inappropriate for a Limited Use area such as this one and the terms of the proposed plan amendment are inconsistent with the CDCA Plan.

- The proposed Plan amendment is not consistent with the bioregional planning approach in the CDCA Plan. The overarching principles expressed in the Decision Criteria in the CDCA are applicable to the proposed project including minimizing the number of separate rights-of-way, providing alternatives for consideration during the processing of applications, and "avoid[ing] sensitive resources wherever possible." CDCA Plan at 93. The BLM should have taken a more comprehensive look at the plan amendment to determine: 1) whether industrial scale projects are appropriate for any of the public lands in this area; 2) if so, how much of the public lands are suitable for such industrial uses given the need to balance other management goals including desert tortoise conservation and recreational uses among others; and 3) the location of the public lands suitable for such uses, if any.

- The proposed plan amendment is not consistent with FLPMA which requires BLM to prevent unnecessary or undue degradation of public lands. 43 U.S.C § 1732(b). The BLM has

- The proposed Plan amendment is not consistent with FLPMA's planning provisions which require that in developing and revising land use plans, the BLM consider many factors and "use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences . . . consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values." 43 U.S.C. § 1712(c). It is also inconsistent with the FLPMA provisions which contemplate that BLM will prepare and maintain adequate inventory data on the resources of an area and that information be used to inform the planning process. 43 U.S.C. § 1711(a); 43 U.S.C. § 1701(a)(2).

- The proposed amendment as discussed in the FEIS now includes replacing three existing designated routes with "replacement routes" which "would be part of the ROW grant for the project and would remain open and maintained by the applicant for the life of the facility" (FEIS at 3-17). Although no map is provided clearly showing the replacement routes, it appears that the perimeter roads around the facility would be the primary replacement routes. (See also FEIS at 4.19-4) However, the impacts on the resources of our public lands from these "replacement routes" and the likelihood that they will be used by off-road vehicles (ORVs) was not analyzed. As the Center has previously commented, there is a high likelihood that ORV users would not ride around the perimeter but will instead create new cross country routes to avoid the industrial site. The FEIS dismisses these concerns without response (FEIS at A.1-179), and the FEIS notes only that "the development of the power generation plant would change the experience from that of a primitive driving experience to the experience of driving around a commercially developed urban area." FEIS at 4.19-4. Moreover, portions of the existing routes that will remain in place traverse the areas that are proposed for desert tortoise translocation west of the proposed project. The impacts to the translocated tortoises and the existing population in these areas is not identified or analyzed. Recent studies correlate higher desert tortoise mortality with density of roads.[2]

- The inadequacies in the environmental review for the project required by NEPA include, but are not limited, to the following:

    - Deferring identification and analysis of impacts to resources including late summer/early fall blooming plants including rare species.

    - Failing to prepare and maintain an inventory of public land resources, BLM also failed to adequately address the resources of this area in reviewing the proposed plan amendment. *See Center for Biological Diversity v. Bureau of Land Management*, 422 F.Supp.2d 1115, 1166-67 (N.D. Cal. 2006) (discussing need for BLM to take into account known resources in making management decisions); *ONDA v. Rasmussen*, 451 F.Supp. 2d 1202, 1212-13 (D. Or. 2006) (finding that BLM did not take a hard

[2] Esque et al. 2010

look under NEPA by relying on outdated inventories and such reliance was inconsistent with BLM's statutory obligations to engage in a continuing inventory under FLPMA).

- Failing to adequately describe the baseline condition of the environmental resources of this area.

- Failing to address the potential impacts of closing some off-road vehicle routes on resources causing increased use of other routes.

- Failing to adequately identify and analyze the likely impacts to desert tortoise from the project and the new proposed translocation "plan". The FEIS proposes a significantly new and problematic translocation process, whereby desert tortoise found within the CLA, Ivanpah 1, and Ivanpah 2, but greater than 500 meters from the western boundary, would be translocated to the Mojave National Preserve.[3] The very first guideline presented in the current Desert Tortoise Recovery Plan (1994) on translocation states "No desert tortoises should be introduced into DWMAs—at least until relocation is much better understood." However, this is exactly the scenario that is now proposed – to move desert tortoise into the Mojave National Preserve, which is regarded as DWMA because of its management mandate. Relocation is still not well understood. Translocation to date has an unsuccessful track-record. A more comprehensive report from the most recent Fort Irwin translocation effort[4] documents that within 2 years of translocation, 70 tortoises of the 158 that were translocated, were known dead – an unacceptable 44%. In addition 20 of the remaining 88 tortoises were "missing". Lastly, although all translocated tortoise in that group had tested negative for deadly diseases prior to being translocated, when retested post-translocation, 11% tested positive.

  The new proposal to move most of the desert tortoise from Ivanpah 1 & 2 and the CLA into the Mojave National Preserve could actually have grave impacts on the tortoises currently living within the Mojave National Preserve. No analysis of the impacts to the existing tortoise community on the Preserve is included, and in fact, no translocation areas have actually been identified, just a generalized area bounded by Nipton Road, Ivanpah Road, Morning Star Mine Road, and the Ivanpah Mountains. (FEIS at 4.3-48). Despite the requirement for disease testing, which is an improvement over the previous plan, translocation of desert tortoise could still introduce disease into the existing population on the Preserve, as Gowan and Berry[5] found. Additionally the strategy does not identify any data that indicates that the habitat on the Preserve can actually support additional desert tortoise. In fact, genetic studies actually identify and map different genetics between tortoises north and south

[3] Tortoises that would need to be moved greater than 500 m from Ivanpah 3 are proposed to be moved to the west after a series of disease testing.
4 Gowan and Berry 2009
5 Ibid

of Nipton Road[6]. Clearly more data on both the tortoises proposed to be translocated and the "recipient" population needs to be collected before a decision can be made on the appropriateness of translocating the desert tortoise from the proposed project site into the Mojave Preserve.

Moreover, in discussions with the Mojave National Preserve (D. Hughson personal communication 8/20/10), at this time, the Preserve has not agreed to receive the ISEGS translocated tortoises. In addition, no NEPA has been done on this new strategy and its effects on the Mojave National Preserve and its flora and fauna.

As part of the Desert Renewable Energy Conservation Plan (DRECP), an Independent Science Advisor committee was convened, and they have recently produced Draft Recommendations for the DRECP. In that document the independent scientists state "One action that we generally do ***not*** endorse as mitigation per se—except perhaps under certain rare circumstances where scientific evidence suggests it may be warranted—is animal translocations out of proposed development areas into reserve areas. This is often done but rarely effective—a "feel-good" measure that has dubious ecological benefits and potential to do more harm than good."[original emphasis][7]. Because so many of the proposed mitigations for badger, Gila monster and other species depend upon translocation and there is a lack of evaluation of impacts from translocation, as described in our prior comments, a re-evaluation of impacts needs to be included.

The Independent Science Advisors also offer a desert tortoise specific recommendation on pg. 77 - "As with the Mohave ground squirrel, the advisors do ***not*** recommend translocation of desert tortoise as effective mitigation or conservation action, in part because translocated tortoises suffer high mortality rates" [original emphasis]. This important recommendation is additionally noteworthy because the two desert tortoise advisors on the ISA, were both independent researchers on the Fort Irwin translocation effort, as well as other translocations. Their recommendations strongly suggest that translocation may do more harm than good.

- Failing to evaluate if the Preserve's desert tortoise research center near the Nipton Road and Ivanpah Road junction has the capacity to "quarantine" desert tortoises from the Ivanpah 1 site. This facility is a "head-starting" facility, which has a very different purpose than potentially holding diseased tortoises and keeping each separated during the time they are over-wintered at the facility as would be required to quarantine these tortoises before the healthy tortoises could be moved onto the Preserve if possible.

- The FEIS also states that "All healthy tortoises…within 500 meters of the western and northern boundary will be moved outside the project area to the west (this area incorporates three of the originally identified translocation sites) and north,

[6] Murphy et al. 2007, Hagerty and Tracy 2007.
[7] http://www.energy.ca.gov/2010publications/DRECP-1000-2010-008/DRECP-1000-2010-008.PDF

- Conversely, while a BLM plan amendment is necessary to allow the proposed project to move forward; no consideration has been given to increasing protections and conservation species that will be impacted by the project in the translocation areas proposed to the west and north of the project site. The areas around the proposed project that are undisturbed, host additional rare species, and are proposed as relocation areas for desert tortoise and other species, should be preserved at the highest level for conservation – for example they should be designated as DWMA or other ACEC - and should preclude future disturbances and ensure that tortoises and other species will not be moved more than once, and to conserve other rare species that will be impacted by the project.

- Failing to establish success criteria for desert tortoise translocation and a phased approach to ensure that any incidental "take" of tortoise could be minimized as required under the ESA.

- Failing to address the potential impacts from changes in the grazing regime on the translocated desert tortoises that are proposed to be moved into the area north and west of the proposed project and the impact to the existing tortoise population in the same area from competition with additional tortoises and cattle.

- Failing to adequately identify and analyze the impacts to bighorn sheep from loss of forage habitat and impacts to movement corridors. The mitigation measure of requiring a guzzler has no connection to the loss of forage habitat and will itself cause additional impacts to biological resources that have not been addressed in the environmental review documents. Simply put, *a guzzler is not a proper mitigation measure for the impacts of this project and should not be required.* The BLM should have revised the FEIS to adequately identify and analyze the impacts to bighorn and should have provided mitigation measures that actually address the impacts to foraging habitat and movement corridors.

- Failing to adequately identify and analyze the impacts to migratory birds, golden eagles, burrowing owls, Gila monsters, badgers and other wildlife, rare insects, rare plants, and rare plant communities.

- Failing to adequately address impacts to air quality particularly regarding PM10 emissions in an already impaired basin and provide for adequate mitigation.

- Failing to adequately assess the impacts to soils, particularly the loss of intact cryptobiotic soil crusts and other stable soils. These impacts were not adequately identified and no final grading plan has been provided to show the actual amount of grading or the impacts to soils from the project as a whole. The impacts to soils are also closely tied to the increase of PM10 due to the project and these issues have not been adequately addressed or mitigated.

- Narrowing the purpose and need to such an extent that the BLM failed to adequately address a meaningful range of alternatives.

- Failing to analyze a range of appropriate project alternatives including distributed generation, a phased alternative, and off-site alternatives on previously disturbed or degraded lands.

- Failing to adequately analyze the proposed alternatives in the EIS.

- Failing to adequately address impacts to groundwater resources from the project and impacts to federal reserved water rights. The BLM must ensure that if the ISEGS project goes forward in any form, the project applicant or ROW holder does not accrue new water rights on federal lands --- BLM should require that any rights *arguably* created by use of groundwater on this site for the project are quit claimed back to the BLM at no cost at the end of the project term. In no case should the ROW holder be able to transfer or sell any water rights that *arguably* could be created by use of groundwater for the proposed project to any third party or off site. In addition, the ROW holder must expressly agree not to seek any compensation for returning and such water rights to the BLM in favor of the public at the end for the project term.

- Failing to adequately address the impacts to surface waters from the loss of natural washes and other features as well as increased erosion.

- Failing to adequately address the potential for wild-land fire due to project construction and operations. In addition, failing to adequately address the fire hazard potential from the proposed project.

- Failing to discuss any mitigation measures for greenhouse gas emissions (GHG) from the project. The FEIS still fails to discuss, no less adopt, any mitigation measures for the GHG created from construction or operations of the proposed project which are

significant. There is no discussion of reducing GHG by using alternative fuels or highly efficient vehicles and equipment.

- Failing to adequately address growth inducing impacts.

- Failing to analyze connected, cumulative, and similar actions that should be considered in the same environmental review to avoid unlawful segmentation. These impacts are not adequately addressed in a "cumulative analysis" only. *See* FEIS at A.2-31 to 32.

- Failing to address the significant impacts from creating a sprawling *de facto* renewable energy zone in the Ivanpah Valley without prior planning or consideration of alternatives. These issues are not adequately addressed in the EIS. BLM's response to comments on this issue—that the project has somehow "benefitted" from the Programmatic Solar EIS process—does not address the concerns raised.

- Failing to provide an adequate comment period for the Supplemental DEIS for the plan amendment.

As detailed above and in the comments submitted previously to the BLM on the Draft EIS and Supplemental Draft EIS by the Center, the environmental review to date is inadequate and incomplete and the proposed plan amendment is inconsistent with the CDCA Plan, FLPMA and other policies, laws, and regulations. Therefore, the Center encourages the BLM to reject the proposed Plan amendment for the proposed ISEGS project in San Bernardino County, California.

Please do not hesitate to contact me if you have any questions regarding these comments

Sincerely,

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LAS VEGAS
McCARRAN INTERNATIONAL AIRPORT

Department of Aviation

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August 31, 2010

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

RE: Comments on the Final EIS for the Proposed Ivanpah Solar Electric Generation System

Dear Mr. Meckfessel:

The Clark County Department of Aviation (CCDOA) submits these comments on the Final Environmental Impact Statement for the proposed Ivanpah Solar Electric Generation System (ISEGS), dated July 2010. CCDOA looks forward to working with the project applicant and with the Bureau of Land Management and its consultants to ensure that the ISEGS project can be constructed without compromising requirements for safety and air navigation in the area near the existing Jean Sport Aviation Airport and the proposed new Southern Nevada Supplemental Airport.

Please feel free to contact Mark Silverstein on my staff at (702) 261-5709 or marksi@mccarran.com with questions or inquiries.

Sincerely,

TERESA R. MOTLEY, AICP
Airport Planning Manager

Enclosure

cc: Randall H. Walker
Rosemary A. Vassiliadis
Mark Silverstein
Philip Rhinehart
David Kessler

CLARK COUNTY NEVADA

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Clark County Department of Aviation Comments

on the

Proposed Ivanpah Solar Electric Generation System
Final Environmental Impact Statement

August 31, 2010

As we have noted in prior comments, Clark County Department of Aviation (CCDOA) remains committed to ensuring that any new construction that may affect CCDOA aviation facilities (specifically, the existing Jean Sport Aviation Center and the planned Southern Nevada Supplemental Airport) is designed in a manner that avoids any potential hazards to air navigation.

The purpose of these comments is to bring to the Bureau of Land Management's (BLM) attention several key issues, including CCDOA's continuing concern about glare impacts to pilots, and also several factual inaccuracies in the Final EIS (FEIS) that merit correction. Both issues are discussed in more detail below.

1. GLARE

CCDOA appreciates that the FEIS now explicitly recognizes that solar radiation and light reflected from proposed project heliostats "could cause a human health and safety hazard to ... air traffic flying above the site, and could cause a distraction ... to pilots of aircraft flying over the site." *See* FEIS at pp. 1-30 to 1-31. CCDOA also appreciates the adoption of mitigation measures to address the potential safety impacts associated with glare from the proposed heliostats. Nevertheless, given that the FEIS openly recognizes that the degree of potential impacts cannot be determined, *see* FEIS at Table 8-1, p. 8-8 ("Unable to determine impact from potential glare") and p. A.1-202, (24.0 TRAFFIC, *Response*), CCDOA continues to have serious concerns regarding potential impacts to pilots approaching or departing from existing or planned CCDOA facilities.

First, it is simply incorrect to assume, as the FEIS does, that "the changing altitude of departing or arriving aircraft at the Southern Nevada Supplemental Airport would .. severely limit the potential for any potential exposure to pilots." *See* FEIS at p. 4.11-17. At the most basic level, this assumption is inconsistent with the later conclusion in the FEIS that BLM is unable to determine impacts from potential glare. *Id.* at p. 8-8. More importantly, pilots could be exposed to the glare from each heliostat, possibly in sequence, which could dramatically increase the duration. The fact that pilots would be ascending or descending is irrelevant. As CCDOA has previously noted, pilots operating under both visual flight rules and instrument flight rules have a legal and safety obligation to vigilantly observe the entire sky to see and avoid other aircraft, as well as to maintain adequate separation from obstacles on the ground. *See e.g.*, 14 C.F.R. § 91.113(b) ("vigilance shall be maintained by each person operating an aircraft so as to see and avoid other aircraft"). This is especially relevant during take-off and landing.

Second, there is no guarantee that the mitigation proposed will be sufficient to avoid impacts. *Compare* FEIS at p. 4.11-15 ("if impacts are found or reported, [verify] that they are investigated and appropriate mitigation proposed and implemented"). Moreover, the details provided in the FEIS are so limited that it is not even clear to the reader if the Heliostat Monitoring Plan (TRANS-3, paragraphs 3 and 4) would cover all potential glare impacts, including, for example, what the applicant would be obligated to do to ensure that heliostats remained in alignment. To that end, CCDOA reiterates that safety and protection of the public health require that the Heliostat Positioning Plan actually be drafted and circulated for comment prior to the issuance of any relevant federal approvals. This is particularly relevant given that BLM has failed to secure any feedback on this critical issue from the Federal Aviation Administration (FAA), which is the single federal agency with expertise in this regard, compare FEIS at pp. 1-15 and 2-15 (FAA not included in list of federal agencies consulted during the EIS process) and p. 9-5 (recognizing that BLM "sent a letter to FAA" but that FAA "did not respond in time to incorporate a revision in the FEIS").

Third, the very success of the proposed mitigation depends on good communication with potentially affected parties – *i.e.*, pilots, airlines, air traffic officials and industry groups – and the ability to capture information about actual impacts. Therefore, when developing the details of the plan, BLM should ensure that pilots, aircraft owners and local air traffic officials are all informed about the monitoring plan and that comments from these parties about impacts and incidents are *actively* sought. This may involve coordination with FAA and relevant interest groups, *e.g.*, the Aircraft Owners and Pilots Association, Airline Pilots Association, Air Transport Association, National Business Aviation Association, and notices to owners of locally-based aircraft.

Fourth, the FEIS is silent on the practical impacts if the mitigation measures do not protect against safety hazards to aircraft operations. Therefore, prior to issuing any final decision, BLM should make clear to the applicant that these mitigation measures are not necessarily sufficient to protect the applicant from potential liability in the event of aviation accidents caused by pilot distraction due to the glare from the project.

For these reasons, CCDOA strongly encourages BLM to adopt enforceable provisions in the Record of Decision that are adaptable to potentially changing conditions as the agency learns more about the potential adverse effects to aviation from the ISEGS project and as operational characteristics of the Southern Nevada Supplemental Airport are refined and better understood.

2. GENERAL COMMENTS / FACTUAL INACCURACIES

a. The FEIS is inconsistent in its references to the status of the Southern Nevada Supplemental Airport. *Compare,* FEIS at p. 5-7 (Draft EIS was suspended in June 2010), p. 5-20 (CCDOA suspended the project indefinitely) and p. 5-21 (EIS has an expected completion date of late 2012 and airport will be complete in 2017). To be clear, Clark County has not terminated the project or placed it on hold. Rather, because of the current economy and the downturn of traffic at McCarran International Airport, Clark County has temporarily postponed its share

of funding for the Ivanpah EIS.[1] However, the CCDOA is continuing planning efforts for the Southern Nevada Supplemental Airport, just at a slower pace. This delay does not affect BLM's obligation to include the SNSA as a reasonably foreseeable project. For that reason, BLM is correct in continuing the cumulative analysis of the project. *Compare*, FEIS at p. 5-20.

b. BLM should consistently refer to the 17,000-acre Airport Environs Overlay District or the Noise Compatibility Area (NCA), not to an undefined "sphere of influence." *Compare,* FEIS Table 5-1, Project "B" at p. 5-7.

c. There is no current plan for the DesertXpress train to stop at the Southern Nevada Supplemental Airport. *Compare*, FEIS at p. 5-16 ("Tentative plans call for ... possible stops in Primm and the proposed Southern Nevada Supplemental Airport Ivanpah Site."). *See* DesertXpress Draft Environmental Impact Statement (March, 2009) at p. 1-8 ("Construction of a link to the proposed Southern Nevada Supplemental Airport is not part of the current DesertXpress proposal and is not evaluated in this EIS. Construction and operations of such a link would require separate environmental review.")

d. Access to the Southern Nevada Supplemental Airport would be through a new "super arterial" highway that would provide exclusive access from I-15 to the airport site at a new interchange near Sloan, NV. The only "modifications" to I-15 caused by the Southern Nevada Supplemental Airport would be the addition of two interchanges (a north and south interchange). *Compare*, FEIS at p. 5-20 ("I-15 would be modified from the airport to south Las Vegas to accommodate site access."). These interchanges are depicted in plans, which are on file with the BLM Las Vegas Field Office.

e. No environmental consequences work has commenced for the Southern Nevada Supplemental Airport EIS.

    i. It is therefore premature for BLM to quantify the direct and secondary impacts that the Southern Nevada Supplemental Airport would have on desert habitat. *Compare*, FEIS at p. 5-21 ("Construction of the new airport ... would result in direct loss and secondary impacts to relatively undisturbed desert habitat totaling 6,787 acres. ... The airport would result in habitat fragmentation and loss of desert tortoise habitat ..."); *see also* FEIS at p. 5-54 ("Development of the Southern Nevada Supplemental Airport could affect an additional 17,000 acres of native desert, if Clark County were to develop the NCA for industrial use").

    ii. Similarly, it is premature and totally unfounded for BLM to make assertions about the degree of impacts to public health and safety from the proposed airport project. The FEIS includes a statement that: " ... the proposed Southern Nevada Supplemental Airport likely would present a

[1] *See* June 29, 2010 letter from T. Motley to FAA, attached hereto.

greater hazard to public health and safety than that of ISEGS or other reasonably foreseeable projects". FEIS at p. 5-35. This is not just conclusory, but also legally inappropriate. The role of this FEIS is to document the potential impacts of the ISEGS project, not to make unsupported comparisons as to the relative impacts of solar projects versus public transportation projects for which environmental review documentation has not been completed and approved.

iii. It is also premature for BLM to make conclusions about induced growth. *Compare*, FEIS at p. 5-36 ("... the Southern Nevada Supplemental Airport would likely result in an increase in population and require the need for new housing and expanded public service facilities.")

Instead, BLM should follow the standard procedures when information is incomplete or unavailable. *See* 40 C.F.R. § 1502.22. Specifically, when evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall: (1) obtain and include such information if the overall cost of obtaining the information is not exorbitant; and (2) if the overall costs of obtaining such information is exorbitant or the means to obtain it are unknown, the agency shall include in the EIS a statement that the information is incomplete or unavailable, an analysis of the relevance of the unavailable information, and an evaluation of impacts based upon theoretical approaches or research methods generally accepted in the scientific community. *Id.*

f. Section 501(a)(5) of Public Law 107-282 directed BLM to withdraw the 17,000-acre Airport Environs Overlay District from location and entry under the federal mining laws; therefore, mining is currently not permitted in this area. Moreover, Clark County does not currently own these lands. Therefore, the statement in the FEIS at p. 4-49 that: "Although mining could be carried out in an additional 17,000-acre Southern Nevada Supplemental Airport NCA, it is unlikely that Clark County would permit such operations" is both misleading and incorrect.

g. The FEIS correctly states that "The recently constructed Intermountain 500-kV Direct Current Transmission Line extends across a portion of the Ivanpah Playa (Nevada), near the proposed Southern Nevada Supplemental Airport site. At the present time, it appears that all existing transmission lines (including the Eldorado-Ivanpah Transmission Line), except the Intermountain Line, would remain along current alignments." FEIS at p. 5-43. The conclusion that all existing transmission lines would remain along current alignments is premature and misleading. CCDOA and FAA are still in the process of evaluating the degree to which existing and proposed transmission lines may impact the proposed Southern Nevada Supplemental Airport and the degree to which some infrastructure may need to be realigned.

* * *

LAS VEGAS
McCARRAN INTERNATIONAL AIRPORT

Department of Aviation

RANDALL H. WALKER
DIRECTOR

ROSEMARY A. VASSILIADIS
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June 29, 2010

Mr. David Kessler
Western Pacific Region
Federal Aviation Administration
Airports Division – AWP – 610.1
P.O. Box 92007
Los Angeles, CA 90009-2007

Re: Planning and Environmental Review for the Southern Nevada Supplemental Airport

Dear Dave:

As you are aware, Clark County Department of Aviation (CCDOA) has decided to postpone funding of additional work on the Southern Nevada Supplemental Airport (SNSA) project. This decision was not made lightly and has nothing to do with the FAA's pending environmental review or our own ongoing planning process. As Randy Walker explained to Acting Associate Administrator Catherine Lang, the decision is based entirely on the economy here in Las Vegas. The traffic at McCarran International Airport is down about 16 percent from our recent peak in 2007 and nothing on the horizon suggests a change in the short term. CCDOA is proceeding with our $2.5 billion capital plan at McCarran, and with appropriate long-term planning for the SNSA, but it will take several years before our capacity begins to be stressed again.

The McCarran airfield capacity has always been CCDOA's most restrictive resource in terms of planning for long-term capacity. In the immediate term, the FAA's Air Traffic Organization has identified airspace optimization plans that are expected to enhance airfield capacity at McCarran. Additionally, it appears that other opportunities for improvement to the airfield capacity at McCarran may develop as Next Gen initiatives continue to be implemented. Combined, these efforts will improve airfield capacity and will delay the short-term need for the SNSA.

This decision has several immediate consequences for the on-going work on the SNSA project. First, CCDOA's contract with Vanasse Hangen Brustlin, Inc. (VHB) for preparation of the environmental impact statement (EIS) expires on October 3, 2010. CCDOA has decided not to renew the VHB contract beyond its expiration date and not to provide or pursue additional AIP funding for the EIS at this time. We have directed VHB temporarily to suspend work and, with your and BLM's input, have prepared instructions to VHB on how to ensure an orderly conclusion to their contract. As a result of our

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decision not to renew funding for the VHB contract, we recognize and accept that the FAA and its joint lead agency, the BLM, may therefore choose to defer additional work on the SNSA EIS.

Attached is a copy of our correspondence to VHB regarding conclusion of their work and the expiration of the contract to prepare the EIS. Among other items, the letter addresses the additional work to be completed by VHB prior to expiration of the contract, the terms for the delivery of copies of work product to FAA, BLM and CCDOA upon expiration of the contract, and the related compensation to VHB. We appreciate the input that you and your colleagues have already provided to make sure that VHB concludes their work and their contract in an orderly and appropriate fashion.

It is important to recognize that, while CCDOA will not be funding the EIS effort in the immediate future, CCDOA is neither abandoning nor terminating its planning for the SNSA project. As the United States Congress has recognized in two separate public laws, the Ivanpah Valley is the only practical site for a supplemental commercial airport for this region to satisfy long-term capacity needs. To that end, CCDOA remains committed to developing that airport when air traffic demand warrants. As a result, we expect that the Memorandum of Understanding (MOU) among BLM, FAA and CCDOA related to preparation of the EIS and cooperation on matters related to the SNSA project will remain in effect.

As was discussed in the meeting at CCDOA on June 22, we will work closely with your office to close out all pending AIP grants related to preparation of the EIS. We expect to be able to complete this task shortly after we receive the final VHB invoice, which we expect in mid-October.

As CCDOA is continuing its planning for the SNSA, albeit at a slower pace, we request that the FAA continue to review (and to provide appropriate airspace protection for) the Airport Layout Plan (ALP) for SNSA. In order to protect this critical site, it will be important that an acceptable ALP and appropriate airspace protection be in place. For that reason, in the immediate term, we request that the FAA complete its review of the revised ALP dated December 30, 2009, and issue the appropriate airspace protection letter for this ALP before the current airspace protection letter expires on July 31, 2010. So as not to lose the years of effort already dedicated to ALP and airspace review, CCDOA will continue to make appropriate Form 7480 filings with the FAA to protect the Ivanpah Valley site from unwarranted encroachment.

CCDOA will also continue to work closely with BLM in that agency's review of projects that could adversely affect the usability of the Ivanpah Valley site for the proposed airport. CCDOA has been designated as a cooperating agency for several pending BLM EISs for projects proposed in the vicinity of the Ivanpah Valley site, and we intend to fulfill our obligations as a cooperating agency to work closely with BLM pursuant to appropriate BLM procedures.

We appreciate the years of effort by you and your colleagues at FAA and BLM on the SNSA EIS. With your assistance, we can all ensure that the prior work is preserved and that, when we resume work on the EIS, we can do so with minimal loss of effort.

Sincerely,

TERESA R. MOTLEY, AICP
Airport Planning Manager

cc: Randall H. Walker, CCDOA
Mark McClardy, FAA
Philip Rhinehart, BLM

LAS VEGAS
McCARRAN INTERNATIONAL AIRPORT

Department of Aviation

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June 29, 2010

Ms. Marla Engel
Vanasse Hangen Brustlin, Inc.
101 Walnut Street
P.O. Box 9151
Watertown, MA 02471-9151

RE: Completion of Work under Contract for Southern Nevada Supplemental Airport EIS

Dear Marla:

As you know, the Contract between Clark County (the County) and Vanasse Hangen Brustlin, Inc. (VHB) for RFQ 05-011 to Prepare an Environmental Impact Statement for the Ivanpah Project dated October 4, 2005, as extended (the Contract), will expire on October 3, 2010. On June 3, 2010, pursuant to Section IX(B) of the Contract, the County provided written notice to VHB to suspend performance under the Contract effective June 17, 2010 (the Suspension Notice).

The Joint Lead Agency (JLA) Project Managers met on June 22, 2010 with Clark County Department of Aviation staff to establish procedures for the orderly conclusion of the Contract in light of the County's decision to postpone further funding for planning and environmental review for the Ivanpah Project.

The purpose of this letter is to summarize the results of that meeting and provide direction for VHB's further performance under the Contract. The JLA have reviewed and concurred in the contents of this letter. In brief, the County and JLA have decided to: (1) rescind the Suspension Notice; (2) formally notify VHB that the County will not be extending the Contract beyond its October 3 expiration date; and (3) issue a Notice to Proceed that redefines the authorized scope of work through the expiration of the Contract.

This letter rescinds the Suspension Notice and constitutes a Notice to Proceed, both of which are effective on the date that VHB acknowledges acceptance of the terms of this letter.

We appreciate that the deadlines and timetables in this letter are ambitious; it is the County's and the JLA's desire to complete as much work as possible before the expiration of the Contract and we greatly appreciate VHB's assistance in this effort.

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Process for Contract Closure and Notice to Proceed

Effective June 17, VHB should have suspended all work on Delivery Orders 1 through 5. VHB is directed *not to perform any additional work or services under the Contract except as provided in this letter.* All funds previously authorized and not yet expended are hereby transferred to a new fund to be spent only for the authorized Scope of Work for Contract Closure (which includes work necessary to prepare the Administrative File), as described below.

Authorized Scope of Work for Contract Closure

After consultation with the County, the JLA have requested that the County authorize VHB to complete certain additional work necessary to close out the Contract and to suspend work on the EIS in an orderly and methodical fashion. This additional work is referred to in this letter as the "Scope of Work for Contract Closure."

The JLA have identified the following tasks as the Authorized Scope of Work for Contract Closure:

(A) Complete the following tasks in their entirety:

- Task 7.9.5: *The Affected Environment Technical Report for Rangeland Management;*
- Task 7.14.5: *The Affected Environment Technical Report for Wild Horses and Burro Management;*
- Task 7.19.5: *The Affected Environment Technical Report for Wilderness;*
- Task 7.20.5: *The Affected Environment Technical Report for Areas of Critical Environmental Concern;*
- Task 7.22.1: *The Class III Survey Report for the Area of Potential Effect;*
- Task 7.22.2; *The Class III-level Above-Ground Resources Identification Report;*
- Task 7.23: *The Ethnographic Technical Report and the Class III-level Ethnographic Report;*
- Task 7.26.1: *The Project Advisory for Cumulative Impacts;*
- Task 7.26.2: *The Project Advisory for Secondary (Induced) Impacts.*

(B) Please identify any other "affected environment" technical reports that can be completed with minimal effort prior to the expiration of the Contract.

(C) As to *all* remaining tasks in Delivery Orders 1 through 5 (as amended), VHB is directed to prepare a status memorandum that describes the status of all work as of June 17, 2010. The separate status memorandum for each task must include a list of relevant deliverables (indicating which have been completed and which have not); a list of data (with citation to the location of the data in the Administrative File); a list of any work that has not previously been documented

in reports or memoranda in the Administrative File and a brief description of the steps that would be necessary to resume work on the task.

(D) In addition to tasks (A) and (C), it is likely that, in review of the VHB Progress Reports, FAA may identify other tasks (itemized as (B), above) that can practically be completed before October 3 and that should be completed to promote the orderly suspension of work on the EIS. Prior to July 2, 2010, VHB will consult with FAA to develop a list of any additional tasks that FAA, after consultation with BLM, believes should be undertaken and can reasonably be completed by October 3. If FAA identifies any tasks beyond those listed in this letter, VHB will provide a description of the task to the FAA and the County and the additional cost of such task. In the notice to the County, VHB shall indicate whether the task description has been approved by the FAA. If the County does not notify VHB within five business days that it *disapproves* the additional tasks, such additional tasks will automatically be authorized, up to the limit of funds available under the Contract.

In no event will the County authorize, or should VHB construe an authorization, for work the cost of which will exceed remaining funds of the total amount authorized for the Contract.

On or before September 27, 2010, VHB will complete and deliver all of the work authorized by the Scope of Work for Contract Closure to the JLA and the County, as provided in the Contract or the applicable Delivery Order. Any work which is not a final work product for the relevant task, shall be clearly marked as draft and shall be transmitted in a readable, accessible format.

Administrative File

Section I(I) of the Contract requires VHB to deliver copies of all materials, information and documents relating to the services to be performed under the Contract (the Administrative File) first to FAA and BLM, as JLA, and subsequently to the County.

This task shall be completed no later than September 27, 2010. Any documents that are not a final work product shall be clearly marked as draft. VHB shall provide the Administrative File to the JLA and the County in electronic form, on DVD-RW (*not* DVD-ROM) media (in Adobe PDF, MS Excel, MS Word, AutoCAD, or other readily accessible format commonly used in the appropriate professional field), together with a separate DVD-RW containing an index in PDF or MS Word format identifying the materials, information and documents being provided in the Administrative File. VHB shall also provide one full *hard copy* of the Administrative File to the FAA and BLM, as well as a hard copy of the index described above. The County does not need a hard copy of the Administrative File.

All documents in the Administrative File will be clearly marked or segregated into four categories: (a) data acquired by VHB; (b) data generated only by the JLA; (c) analytical documents containing advice by VHB to the JLA; and (d) all other documents. Should the County and the JLA decide that any of these categories of documents should be delivered in a different fashion, we will inform you in advance.

The Administrative File shall be sent to the County, FAA and BLM as follows:

To FAA:	Mr. David Kessler Project Manager, Southern Nev. Supplemental Airport EIS Western Pacific Region Federal Aviation Administration Airports Division – AWP – 610.1 P.O. Box 92007 Los Angeles, CA 90009-2007
To BLM:	Mr. Philip Rhinehart BLM Las Vegas Field Office 4701 North Torrey Pines Drive Las Vegas, NV 89130-2301
To County:	Ms. Teresa R. Motley Airport Planning Manager McCarran International Airport P.O. Box 11005 Las Vegas, NV 89111-1005
With copy to:	E. Lee Thomson, Esq. Chief Deputy, Clark County District Attorney 500 S. Grand Central Parkway, Suite 5075 Las Vegas, NV 89106
And copy to	Peter J. Kirsch, Esq. Kaplan, Kirsch & Rockwell LLP 1675 Broadway, Suite 2300 Denver, CO 80202

Cost for the Authorized Scope of Work for Contract Closure

By July 6, 2010, VHB is directed to prepare a *final* Progress Report and Invoice (#67) for all work under the Contract authorized through June 17, 2010. VHB should exercise care in preparing this final invoice because *no further invoices may be submitted for work completed prior to June 17, 2010.* VHB is directed to provide to the County and the FAA at the same time, a summary table showing the amount of all remaining,

unexpended funds from Delivery Orders 1 through 5, and indicating the amount of funds remaining of the total authorized Contract amount of $14.2 million (Remaining Funds).

By July 12, 2010, VHB is directed to provide the County and the JLA with a proposed cost for the Authorized Scope of Work for Contract Closure (including the cost for preparation and delivery of the Administrative File). The proposed cost cannot exceed the amount of the Remaining Funds.

On or before July 16, the County, after consultation with the FAA, will approve the proposed cost for the Authorized Scope of Work for Contract Closure (including preparation and delivery of the Administrative File).

Compensation and Terms of Payment

VHB is directed to submit progress reports and invoices to the County for the Authorized Scope of Work for Contract Closure in accordance with Section V of the Contract. Each such progress report and invoice will be processed and paid by the County in accordance with such Section V. VHB is directed to provide copies of each progress report and invoice to FAA.

Except for compensation for the Authorized Scope of Work for Contract Closure (including preparation and delivery of the Administrative File), as provided for in this letter, VHB understands that it will not be entitled to any additional compensation beyond the amounts set forth in Progress Reports 1 through 67. Because the County is allowing the Contract to expire by its own terms, VHB shall not be entitled to additional compensation for mobilization under Section IX(B) of the Contract or demobilization under Section IX(C)(4) of the Contract.

* * *

The Notice to Proceed, rescission of the Suspension Notice and Authorized Scope Work for Contract Closure, as set forth in this letter, shall be effective as of the date of the signature by VHB below. All other terms of this letter are effective immediately. The County will issue a subsequent notice to proceed for any additional work that is authorized to be completed prior to October 3, 2010 in accordance with the procedures set forth in this letter.

Sincerely,

TERESA R. MOTLEY, AICP
Airport Planning Manager

I acknowledge the terms of this letter and consent to comply with them on behalf of Vanasse Hangen Brustlin, Inc.

_____ _____

Marla Engel, Project Manager Date
Vanasse Hangen Brustlin, Inc.

cc: Randall H. Walker, CCDOA
Dave Kessler, FAA
Phil Rhinehart, BLM

California Native Plant Society
2707 K Street, Ste. 1 • Sacramento, CA 95816-5113 • (916)447-2677 • FAX (916)447-2727

September 7, 2010

Mr. George Meckfessel
Planning and Environmental Coordinator
Bureau of Land Management, Needles Field Office
1303 South U.S. Highway 95
Needles, CA 92363

Re: Comments on Final Environmental Impact Statement and Protests to Proposed Grant of Right-of Way to BrightSource Energy under the FLPMA and to Amendment of the California Desert Conservation Area Plan **(**EIS No. 20100292)

Dear Mr. Meckfessel:
The California Native Plant Society (CNPS) appreciates the opportunity to comment on the Final Environmental Impact Statement (FEIS) and Proposed Amendment to the California Desert Conservation Area Plan for the Ivanpah Solar Electric Generating System (ISEGS) Project released August 3, 2010. The proposed Project would require the Bureau of Land Management to issue a right-of-way to BrightSource Energy over public lands in compliance with the Federal Land Policy and Management Act of 1976 (FLPMA). Issuance of the ROW would require an amendment of the California Desert Conservation Area Plan (CDCA). This letter serves as CNPS's protest of the proposed right-of-way under the FLPMA and the CDCA amendment.

The California Native Plant Society is a nonprofit organization whose mission is to conserve California native plants and their natural habitats. We submit these comments and protest as an organization who has actively participated in the planning process of the ISEGS project as an Intervenor party since July, 2009.

The issues within this protest have been raised and submitted during the planning process in documents provided as Attachment A to this letter, and in documents submitted as part of the California Energy Commission's Application for Certification process for this project (07-AFC-05) that are hereby incorporated into the record for this FEIS. Our issues are as follows:

1. The affected environment relating to rare plants has not been fully assessed for this project

The FEIS's assessment of the Affected Environment and Consequences for special-status plant on the project, as presented in FEIS Chapters 4.3.1.1-4.3.1.2, and 4.3.2 is informationally inadequate because it does not provide accurate information on the presence of rare plants that sprout and bloom following desert rains in the late summer and early fall. Without this information, neither BLM, the California Energy Commission (CEC) nor the public has any understanding of the affect of this project on late summer species and certainly the project contains no mitigation that specifically addresses these affects. Without survey information, the project's NEPA review process lacks an adequate description of the affected environment of the project.

Here, the record contains evidence showing that summer/fall blooming rare plants are likely to occur in the project area. In particular, specimens from herbarium collections demonstrate that summer/fall plants occur in locations near the project area that are not recorded in the CNDDB, the sole source relied on by the applicant in its determination that summer/fall species. The record also shows that the CNDDB data

base was not an accurate substitute for the spring surveys. Instead those surveys discovered a number of rare and threatened species in project area locations that were not recorded in the CNDDB.

During cross-examination questioning on the 01-12-10 Evidentiary Hearing date, CEC staff acknowledged the need for summer botanical surveys but claimed this issue was brought up too late in the project's data acquisition process:

> " [the need to perform summer/fall blooming surveys is]definitely an
> 16 issue that needs to be raised we think on all these
> 17 projects. I think we need to get in there and tell these
> 18 applicants early on that they need to do well time
> 19 surveys, even though it's not -- it's not something that
> 20 we're accustomed to doing. It is provided for in the
> 21 survey guidelines, the agency botanical survey guidelines
> 22 say that you need to do surveys at a time of year that
> 23 anything that has the potential to occur in the project
> 24 area is blooming or is identifiable. So in that sense, we
> 25 probably all should have been doing fall surveys for a
> 1 long time. But it is new to staff. It's an issue we were
> 2 not familiar with and it came to us late in the process."
> Transcript of ISEGS Evidentiary Hearing, January 12, 2010. pp. 192-196]

This position ignores that CNPS has brought the need to include botanical surveys for summer/fall blooming rare plants botanical surveys to the attention of the California Energy Commission since as early as February 2009. CNPS also included this concern in our comment on the DEIS for this project in February, 2010. The applicant was required to and did perform expedited tortoise habitat quality surveys during July/August of 2009 when no such "late in the process" restriction applied to additional data acquisition, review, and assessment. Similar fall surveys for summer/fall plants could have occurred in this case.

The result of this process is that the BLM and CEC lack adequate information to determine whether or not the impacts of this project are significant on these summer/fall plant species.

The FEIS concludes that mitigation measures will in fact avoid significant impacts to rare plant species. As to summer/fall plants, this is just a post-hoc rationalization not based on any analysis in the environmental review documents.

Here the proposed mitigation measures were not formulated based on any information regarding the project's potential to harm these species. For example, in the Condition of Certification BIO-18, the CEC included the requirement for pre-construction floristic surveys to be performed and to include surveys for summer/fall blooming rare plants. However, the added requirement is flawed because it limits the extent of surveys for summer/fall blooming plants, as per Bio 18 condition #3,

> "*to encompass at a minimum the three areas totaling 476 acres and labeled 'Rare Plant Mitigation Area' in* Project Description Figure 13 *and shall extend 150 feet on both sides of the proposed gas pipeline alignment and 250 feet out from the project fenceline."*

What's more, the FEIS indicates that the need for an assessment of impacts to summer/fall blooming plant taxa (BIO-18 item #3) is not necessary, as the FEIS states:

> *" The project owner shall implement the following measures to avoid and minimize impacts to special-status plant species. Items 2, 3, 5, 6, 7, 10, and 11* ***are recommended exclusively by Energy Commission staff****."*

The BLM's apparent non-concurrence with even the insufficient amount of summer/fall survey required by BIO-18 #3 indicates that summer/fall blooming special-status plants that might occur across the vast majority of the project area within active construction and operation areas throughout the remaining proposed project acreage, as well as project impacts to these species, will be ignored.

In sum, the FEIS conclusion that plant impacts have been adequately addressed fails to include a full assessment of potential impacts to summer/fall plants because it is not possible to develop mitigation measures that reduce impacts to these species where no information is provided as to how the project actually affects them in the first place.

CNPS request that BLM require supplemental late summer/early fall botanical surveys be performed and results assessed for the entire project site so that additional rare plant findings, should they occur, can be incorporated into the existing Bio-18 Conditions of Certification so the BLM can fulfill their obligations to fully assess the affected environment pursuant to NEPA.

2. Project will fragment rare plant habitat, rare plant mitigation measures are untested and speculative, and there is a high probability the project will lead to increased listing status and possible extirpation of plants from California.

The FEIR lacks adequate information to support its proposed finding that the rare plant mitigation measures for spring blooming plant species are adequate to avoid significant impacts as described in FEIS Chapter 4.4.

BLM should not consider the "impact minimization" or "halo" approach to rare plant impacts as on-site avoidance, or as an on-site mitigation measure that will result in long-term, self-sustaining populations of rare plants. Mitigation practices certified on this project could be precedent-setting for subsequent project applications and therefore should be based on sound scientific information. The extent of protection afforded to plants within the proposed "halos" remains untested, and speculative at best.

The revised project presented in the Applicant's Mitigated Ivanpah 3 design still relies on the fenced "halo" method of addressing impacts to rare plant occurrences within the heliostat fields, as described in Applicant's Exhibit #81, and as required in the CEC's Condition of Certification BIO-18. Mojave Milkweed and Desert Pincushion are especially reliant upon Exhibit #81's "halo" design since both species are distributed widely across the project site and benefit little from the Block 3 avoidance area.

In order for impacted plant populations to remain viable in the long-term, we must assume that proposed mitigation measures for plant populations for which we know little to nothing about their physiological and ecological needs, will successfully achieve the following:

a. the plants will survive in the shade of hundreds of thousands of heliostats, where they will experience more water more often (from mirror washing), where above and below ground nutrient conditions have changed (from regular mowing, mulching above and reduced nutrient uptake of stunted plants from below), where surrounding soil compaction has occurred (from construction and maintenance vehicles and activity), and where invasive plant competition has increased,

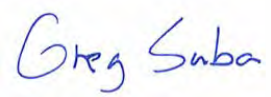
b. the plants will survive transplantation in the desert,

c. additional plants will be found *and* provided protection on off-site lands.

No biologically defensible data has been presented during these proceedings or in the FEIR to support the assumptions being made regarding both the "halo" plant mitigation measures, and the probability of locating *and* protecting in-lieu off-site plant habitat. Should the highly-improbable "halo" approach fail to preserve self-sustaining populations of the rare plants occurring on site, and no requirement to locate and protect off-site occurrences be required, then the proposed project will have a significant impact on the continued existence of these plants in the state.

CNPS protests the issuance of the proposed right-of-way to BrightSource Energy under the FLPMA and approval of the CDCA amendment proposed as part of the ISEGS Project, for the reasons we have presented above. We appreciate the opportunity to provide these comments regarding the ISEGS FEIS.

Respectfully,



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10 February, 2010

Mr. George Meckfessel, Planning and Environmental Coordinator
Bureau of Land Management, Needles Field Office
1303 South U.S. Highway 95
Needles, CA 92363

re: comments on the joint Final Staff Assessment/draft Environmental Impact Statement (FSA/DEIS) for the Ivanpah Solar Electric Generating System (ISEGS)

Mr. Meckfessel:
Please accept and fully consider these comments regarding the ISEGS FSA/DEIS report on behalf of The California Native Plant Society (CNPS). CNPS works to protect California's native plant heritage and preserve it for future generations. We are a non-profit organization largely run by volunteers. Our nearly 10,000 members work to promote native plant appreciation, research, and conservation through 33 chapters located statewide. We appreciate the opportunity to provide comments on the FSA/DEIS.

BIOLOGICAL RESOURCES

CNPS supports the development of alternative, green energy sources, as long as those projects do not unnecessarily degrade healthy, diverse ecosystems. The proposed ISEGS project will cause significant, avoidable, adverse impacts to native vegetation communities and significant impacts to rare plant populations on the site, and within the surrounding Ivanpah Valley area. These impacts will have permanent (i.e., effects will persist for thousands of years) effects on ecosystem functions that have been evolving within the Ivanpah Valley for millennia. The area within the proposed project footprint will be affected directly, and the areas surrounding the project footprint will be affected indirectly during project construction and operational phases.

The discretionary decisions relating to this project will be precedent-setting as the first of several large proposed utility scale renewable energy projects of similar size (several thousand acres) to be constructed and operated within Ivanpah Valley. Dozens of similar projects are proposed throughout the California Desert Conservation Area. Impacts to biological resources associated with the proposed project, and related mitigation requirements will also be precedent-setting for projects of this scale. Several projects, including this one, are being permitted at a "fast-tracked" pace, and outside of a comprehensive regional planning process, such as the BLM's Solar Energy Study Area (SESA) PEIS and/or the Desert Renewable Energy Conservation Plan (DRECP) process.

The proposed ISEGS project and other proposed projects in the Ivanpah Valley, will cumulatively impact the viability of vegetation communities and rare plant populations. Furthermore, the project will fundamentally alter the functional integrity of the landscape, and reduce the desert landscape's unique ability to sequester atmospheric carbon dioxide (a greenhouse gas) 24-hours per day.

Climate Change
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 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 that are able to sequester CO2 only during daylight hours. Not only will the project, as located, adversely affect a number of rare species it will also adversely impact the diverse photosynthetic productivity of the region. The rich species composition of the site is unique in that all known photosynthetic pathways are represented. The photosynthetic activities of cool weather C3 plants, the warm weather C4 plants, and the nocturnal CAM (crassulacean acid metabolism) plants are significant. The loss of the density and diversity of cactus species would contribute to the carbon dioxide imbalance that green energy is purported to fix. CAM photosynthesis is found in cactus and succulent plants and is the most efficient photosynthetic process for fixing carbon dioxide of the three represented pathways present on site. This issue demands that a location that has already been disturbed should be the primary choice for energy development. Since this is one of many energy projects anticipated within Ivanpah Valley, and indeed throughout the CDCA, it needs to set a rational precedence and needs to be adequately analyzed in the cumulative effects section of the environmental document.

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. CNPS maintains that the solution to this problem is to build and operate the proposed ISEGS project in an alternative site away from intact wild lands. The way to maintain healthy, vibrant ecosystems is to preserve their intact nature, not to fragment them and reduce their biodiversity.

Project impacts to rare plants

Significant populations of rare plants, including *Sphaeralcea rusbyi var. eremicola* (Rusby's desert mallow), a CNPS List 1B and BLM special-status plant, occur on the proposed project site, as described in the FSA/DEIS report.

The project will deploy heliostats, power towers, associated building structures, pipelines, and roads across approximately 4,000 acres of ecologically intact desert habitat, where naturally functioning ecological processes predominate over recent man-made intrusions. The completed project footprint will fragment 4,000 acres of diverse and intact desert plant communities. This includes rendering large rare plant populations, into fragments of various sizes. The biological affects of ecosystem fragmentation are well documented (Saunders et al., 1991). In general, the fragmentation of rare plant habitat on the project site will lead to two fundamental changes across the landscape; 1) an increasing isolation of remnant populations, and 2) a decrease in the total amount of available habitat for remnant populations. These two phenomena will be repeated throughout Ivanpah Valley, and where rare plants occur within the footprints of proposed neighboring energy projects, and the hundreds of thousands of acres of the Greater Mojave Desert ecosystem in California, Arizona, and Nevada where hundreds of utility-scale wind and solar project applications are being proposed.

To manage for viable rare plant populations on the project site, it will be necessary to identify project-related threats to those populations. Threats include, but are not limited to, altered light regimes due to shading by heliostats, altered hydrological conditions due to intercepted and redirected rainfall patterns and mirror washing, soil compaction during construction and operational phases of the project, altered soil nutrient conditions due to modified nutrient uptake by regularly mowed vegetation, and the introduction and spread of invasive weeds. With so many threats it is difficult to understand how they ultimately affect the viability of specific plant populations or metapopulations, how the threats themselves may interact, and how to come up with effective methods to alleviate them.

For example, habitat fragmentation caused by development of the proposed ISEGS project, and other subsequent energy projects in Ivanpah Valley, will impact numerous rare plant populations, but the severity and extent of these impact is not well known. It is safe to assume that larger populations that are broken into smaller populations will suffer from a restricted exchange of pollen or seed, and this has

important genetic and demographic consequences. Additionally, habitat fragmentation results in the increase of edge effects and the deterioration of habitat quality. It may alter plant-pathogen and plant-herbivore dynamics. Due to lack of time, funding or available expertise, the full range of demographic vs. genetic stochasticity parameters are rarely integrated into population viability analyses. Until such detailed analyses become available, managers must work with scientists to maintain natural ecological processes and provide the best natural conditions for populations and metapopulations to persist. A central principle of ecosystem management is to delineate the primary threats to each species and their habitats and to minimize or eliminate these threats to the greatest possible extent.

In general, threats come in three types 1) threats imposed by changes in the environment, either by natural or human causes, 2) threats resulting from disturbance of important interactions with other species, and 3) genetic threats. Current environmental threats to the proposed ISEGS site and surrounding lands are considerable. These include climate change (e.g., altered precipitation and fire regimes), habitat fragmentation (e.g., roads, heliostat fields, structures), direct disturbance (e.g., mowing, hydrological alterations, deposition of atmospheric nitrogen) and exploitation (e.g., cactus collecting). Disturbance of biotic interactions might include destruction of key pollinator guilds, altered pathogen and herbivore interactions, and hybridization with introduced natives (e.g., CalTrans revegetation programs). An important principle that must be considered is that we lack a basic knowledge of the biological and ecological requirements required to appropriately manage many rare species. In order to prioritize management of rare plants related to any proposed project, we must understand their distributions, life-history attributes, and identify any threats to their viability. Finally, management for conservation of rare plants should always take place in the context of the key processes of their ecosystem (e.g., practices developed in the Nebraska prairies may not be appropriate in the California Deserts).

As noted in the FSA/DEIS, in CNPS's written opening testimony, and in CNPS's direct oral testimony (ISEGS Evidentiary Hearings Transcripts of 1/12/10 pp.223-253), peripheral populations are important for the long-term conservation of genetic diversity and evolutionary potential of a species, particularly within the context of uncertain climatic changes to their habitat (Hampe and Petit, 2005; Lesica and Allendorf, 1995).

CNPS would like to emphasize the contradictory approach to climate change mitigation represented by siting the project in its currently proposed location. One of the benefits of utility-scale solar projects will be their reduction of greenhouse gas emissions resulting from decreased need to rely on the combustion of fossil fuels for energy. However, if the implementation of this climate change mitigation strategy (greenhouse gas reduction) comes at the expense of reducing the native biodiversity of intact biotic communities (desert tortoise habitat, high quality vegetation alliances), and rare plant populations, then the benefit of the project is greatly reduced.

The Ivanpah Valley fan site is a large intact area of creosote-bursage scrub that is relatively free of weeds. The FSA/DEIS describes the site as "particularly high quality in terms of species richness and diversity, including rich cactus and succulent diversity, creosote rings, micro-topographic diversity (upon which several of the special-status species depend), and currently contains relatively few non-native plants." (FSA, Biological Resources p. 6.2-37).

In A Manual of California Vegetation, (Sawyer et al., 2008) the authors describe threats to the Larrea tridentata-Ambrosia dumosa Shrubland Alliance (Creosote bush-white burr sage scrub) found at the proposed site as follows: "The presence of several non-native plants, particularly Brassica tournefortii, Bromus spp., and Schismus spp., has greatly increased fire frequencies and led to the degradation and destruction of many hectares of this alliance. Long-term, intensive grazing, OHV activity, mining, and military operations have also left their mark.... We need to identify, monitor, and manage areas free of these degrading influences" (page 568).

In addition, the authors state that Creosote bush-white burr sage scrub associations occurring with Pleuraphis rigida (Big galleta grass), and "those with a diverse shrub layer are G1/S1" (page 566). The G1/S1 (Global/ State) status rank means that the plant community is considered globally/state

uncommon with "fewer than 6 viable occurences worldwide/statewide, and/or up to 518 hectares" (page 45). The Ivanpah site plant community has galleta grass and a diverse shrub layer. The qualities of this site, as well as similar areas throughout the Ivanpah Valley and indeed the California Desert Conservation Area are just those types of wild lands that our climate change strategies should be addressing through protection, rather than destruction.

Rare plant surveys lack late summer/early fall-flowering taxa inventory
Approximately 40% of the plant taxa in Ivanpah Valley flower in late summer/early fall. Of these, 20-25 potential special status plants flower in the summer/fall. All of these plants require ideal conditions for growth. Surveys, no matter how thorough, when performed during seasons and in years in which specific growth conditions are absent may fail to record the presence and/or full range extent of rare plants in desert habitats.

The floristic surveys conducted by the applicant during Spring 2008 were performed well, and by well-qualified field personnel. However, floristic surveys for desert rare plants must be performed by qualified botanists over a number of years during both spring and summer/fall flowering seasons in order to maximize the probability of identifying all special status species with the potential to occur on the project site. Without an accurate inventory of plant taxa that occur on site, it is not possible to fully assess project impacts to special status plants and therefore meaningful mitigation cannot be developed.

Furthermore, the Eastern Mojave Desert is a botanical frontier where in the past few years alone, there have been a number of very significant botanical finds and where more are to be expected. Examples for Ivanpah Valley include, *Amaranthus crassipes* (near Nipton, new to California (CA)), *Oenothera cavernae* (Primm to Clark Mountain, new to CA), *Muilla coronata* (a 70-mile eastern range extension, new to Eastern San Bernardino County), *Leptochloa uninervia* (from near Nipton, new to the Mojave Desert). The *M. coronata* was found just west of the proposed ISEGS project area at the base of Clark Mountain in early spring. By the time surveys of the proposed ISEGS site were conducted in late April and May, *M. coronata* plants had dried and were not observable during the spring surveys. This later example illustrates how surveys conducted when growth conditions are adequate (as they were in spring of 2008), may be too narrow in their window of timing to detect important rare plant occurrences.

The FSA report's Special-Status Plant Impact Avoidance and Minimization measure (BIO 18) requires the applicant to conduct pre-construction surveys for both spring and summer/fall blooming taxa but only within the specified project areas. Vegetative structures of some of the spring flowering rare plants occur in localities other than those mapped the previous year. Since the purpose of pre-construction surveys is to quantify each taxon's occurrence on site, pre-construction surveys should be conducted on all project lands that are undeveloped at the time surveys are performed in order to obtain a full accounting of plant occurrences (e.g., *Asclepias nyctaginifolia* spreads underground and sends vegetative clones above ground in different locations year after year; *Enneapogon desvauxii* is an annual grass and so its distribution is ephemeral year to year). Since summer/fall surveys have yet to be performed at the project site, there is no baseline information on the presence and extent of these taxa. Therefore, summer/fall surveys need to be conducted throughout the entire site before any construction begins in order to obtain a full account of special status species on site.

Appendix 1 contains a table of late summer/fall flowering rare plants with CNDDB records within the California Desert Conservation Area (CDCA). The taxa listed in Appendix 1 are not and should not be considered an exhaustive list of summer/fall flowering desert rare plants. All information in the table is publicly available by querying the Online CNPS Inventory of Rare and Endangered Plants (7th edition) (http://www.cnps.org/cnps/rareplants/inventory/).

Cumulative Impacts
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 with rare plant occurrences 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 grown inducing impacts from the approval of one project on the entire area is not adequately assessed or analyzed.

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."

The FSA/DEIS states that 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)

The cumulative impacts of the proposed ISEGS project combined with other proposed energy projects in Ivanpah Valley represent a scale of impact on functional habitat that is unprecedented in its range and pace. Cumulative impacts identified in the FSA/DEIS for the proposed project will have cumulatively considerable adverse effects to the Ivanpah Valley ecosystem as the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. The FSA/DEIS concludes that the cumulative effects of these proposed actions to the biological resources in the Ivanpah Valley will have significant, unmitigable impacts to rare plants, but falls short of requiring meaningful mitigation to address these cumulative impacts.

Rare Plant Avoidance and Minimization Measures (BIO 18) do not provide mitigation for rare plant losses

The FSA/DEIS report directs the applicant to implement several measures under "BIO 18" that are generally in agreement with CNPS policies and guidelines on rare plant mitigation requirements (CNPS 1989, CNPS 1998a, CNPS 1998b). Additionally, BIO 18 measures would provide important information on the population dynamics and population viability of the project's six reported special status plant taxa, including *Sphaeralcea rusbyi var. eremicola* (Rusby's desert mallow), a CNPS List 1B and BLM special-status plant. This data could assist in the future management of these taxa both on the proposed ISEGS project and on other projects where they might occur.

The applicant proposes to intentionally manage the "quasi-natural" vegetation under heliostat fields as rare plant refugia by fencing individual plants or groups of plants under mirrors. Efforts to manage heliostat fields as areas for rare plant protection would be experimental in nature, meaning there is no current data that assures, or provides sufficient confidence, for success. Therefore, any management plan to this effect would need to be designed in such a way as to produce results that would better inform

future decisions - whether the results are positive or negative; and it would need to have benchmarks for success and for remedial action to buffer against losses that could lead to extirpation or extinction of a species. In terms of rare plant conservation under solar mirrors, there is no foundation of success to point to, but many instances of species failing in response to ecosystem fragmentation, especially when management decisions focus on preserving a population's spatial distribution patterns at the expense of hindering a population's biological processes (Thrall et al., 2000). If the proposed project is built, the opportunity for rare plant conservation, ironically, will be in the knowledge we gain by documenting the loss of populations. For mitigation to occur, at a minimum the applicant must be required to conduct off-site surveys to identify lands with additional occurrences of the special status plants that are to be destroyed by the project, then place the lands where identified plants occur under conservation easement before being allowed to commence construction.

Vegetation surveys to determine potential desert tortoise relocation and translocation habitat quality are insufficient

Plant Surveys were performed in July/August 2009 to determine whether habitat quality of proposed desert tortoise translocation areas were of equal or greater quality than the habitat quality at the project site. This comparison used measures of perennial shrubs and succulent species abundance, richness, and diversity as surrogate indicators of desert tortoise habitat quality. The survey rationale, design, methods, and analysis contain flaws that call into question the validity of conclusions presented in the report, Vegetation Surveys for Potential Relocation and Translocation Areas (in Applicant's Supplemental Data Response, Set 2I, August 10, 2009).

An accurate assessment of desert tortoise habitat quality must take into account the quantity and quality of food sources available. Highest quality food for desert tortoise are native annual plants, whose protein and water content provide the optimum opportunity to rehydrate and flush salts concentrated during hibernation from their bladders, and to accumulate the energy necessary to mate successfully (Pavlik 2008). The surveys were conducted in the middle of summer when few annuals are present.

The report does not provide a rationale for the number of sampling sites chosen, or whether the sites were chosen at random. No statistical test was performed to compare similarities/differences between project and proposed translocation sites, so conclusions cannot be confirmed to any level of significance.

The California Native Plant Society appreciates the opportunity to provide these comments regarding the ISEGS FSA/DEIS. Our goal in this regard is to assist the BLM to develop the best possible environmental review in a timely manner that provides effective, long-term protective measures for preserving our biological resources in the California Desert while addressing the permitting process for renewable energy projects.

Respectfully,
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References

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September 7, 2010

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Re: Ivanpah SEGS FEIS Comments

Dear Mr. Meckfessel:

Solar Partners, I, LLC, Solar Partners II, LLC and Solar Partners VIII, LLC, (hereinafter, the "Applicant") submit this comment letter on the Final Environmental Impact Statement ("FEIS") prepared by the Bureau of Land Management ("BLM") on the application for a right-of-way ("ROW") over public lands needed for the Ivanpah Solar Electric Generating System project ("ISEGS" or the "Ivanpah Project"). This letter also responds to comments on the Supplemental Draft EIS ("SDEIS") made by other parties.

As an initial matter, the Applicant thanks the BLM for its efforts throughout the review of the request for the ROW. With the publication of the FEIS, and its expanded discussion of alternatives, cumulative impacts and mitigation measures, BLM has established a detailed and extensive administrative record upon which to base the final Record of Decision ("ROD"). We look forward to the issuance of the ROD and urge approval of the ROW so that construction of the project can commence in 2010 in time to meet the Secretary's renewable energy goals and to contribute towards the economic stimulus intended by the American Recovery and Reinvestment Act of 2009 ("ARRA"), by meeting its end-of-the-year deadlines.

This comment letter on the FEIS provides specific comments on two biological resources mitigation measures included in the FEIS (BIO-17 and BIO-21) and provides further comments on other topics presented in the FEIS. For purposes of consistency, and in furtherance of the Bureau's commendable efforts to coordinate with the California Energy Commission ("CEC") proceeding, this comment letter draws heavily from a document the Applicant submitted to the CEC in response to the CEC's Presiding Member's Proposed Decision ("PMPD"), entitled *Applicant's Comments on the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System and Attachments* ("Applicant's PMPD Comments"), a copy of which

is attached to this comment letter as Exhibit 1. The substance of Applicant's PMPD Comments are referenced, where appropriate, within this letter.

I. FEIS BIOLOGICAL RESOURCES MITIGATION MEASURES

FEIS BIO-17: The Substance of BIO-17 in the ROD Should Reflect the Clarification by the State of California's Department of Fish & Game Regarding Biological Resources Mitigation and the Impropriety of Using Draft REAT Working Draft Formulas.

The Final EIS should reflect a recent clarification by the State of California's Department of Fish & Game ("CDFG") on biological resources mitigation. This clarification, which is based on information already in the record for this proceeding, affects the details of and the language for Condition BIO-17. A copy of the September 1, 2010 letter to the CEC from Kevin Hunting, Chief Deputy Director of CDFG, providing this clarification, is attached to the Applicant's PMPD Comments (as Attachment 2 thereto) and is referred to hereinafter as the "CDFG Clarification Letter."

The FEIS references a working draft table from the California "Renewable Energy Action Team ("REAT"). The July 23, 2010 working draft table is entitled "Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account." Condition BIO-17 in the FEIS has a formula based on this REAT working draft table. In the CDFG Clarification Letter, Kevin Hunting explains that the REAT document used in the FEIS' BIO-17 is a "working draft" that should not and does not apply to the Ivanpah Project. Chief Deputy Director Hunting states:

> The document is a working draft that does not yet reflect the position of all of the REAT agencies with respect to biological mitigation implementation and it lacks the context of representing only one of several available mitigation options. As such it does not reflect the Department's approach to securing mitigation costs and includes costs that may not be relevant for the state to exact.
> * * *
> We therefore recommend either removal of the table from any official decision-making document or clarify that it is a working draft REAT document and should not be relied upon for this specific project. (CDFG Clarification Letter, September 1, 2010, p. 1; see Applicant's PMPD Comments, Exhibit 1 hereto at pp. 6-7 and Attachment 2 of the Applicant's PMPD Comments.)

Accordingly, Condition BIO-17 should be revised in the ROD to reflect this significant clarification from the CDFG which explains why the table set forth in the BLM and CEC versions of BIO-17 is inapplicable to the Ivanpah Project and is inappropriate to be incorporated in the ROD.

The specific revisions to the text of BIO-17 that the Applicant believes the BLM and the Commission should incorporate into the ROW grant and the CEC's Final Decision, consistent with the fact that the REAT draft working table is inapplicable to the Ivanpah Project, are set forth in Exhibit 1 (Applicant's PMPD Comments) and repeated for your convenience in Exhibit 3 hereto.

FEIS BIO-21: BLM Should Not Incorporate BIO-21 into the ROD as the Applicant has Completed Two Years of Rare Plant Surveys, Fully Satisfying Protocols in Place at the Time Surveys Were Completed; Submittals are Data Adequate; and CEC Staff Has Determined "Fall Surveys Would be Nice But Are Not Necessary."

Applicant requests that BLM not incorporate FEIS Mitigation Measure BIO-21 into the ROD. The existing rare plant survey data are sufficient. Rare plant surveys of the entire site including the one mile buffer were conducted in 2007, and again in 2008. As CEC Staff stated, these surveys "were of the highest professional quality and met all applicable guidelines" in place at the time surveys were conducted. (*CEC Staff's Reply Brief dated 4/16, page 24*.)[1] Additionally, Applicant's submittals have been found to be data adequate.

FEIS BIO-21 states that additional mitigation could be imposed upon the Applicant. Rare plant mitigation described in the Applicant's February 2010 Biological Mitigation Proposal ("Mitigated Ivanpah 3") (*Ex. 88*), includes removal of 476 acres from the project, the establishment of three Rare Plant Mitigation Areas, the salvage/transplantation of rare cactus located outside the Rare Plant Mitigation Areas, and the installation of protective fencing around Mojave milkweed and Rusby's desert mallow localities within the heliostat array. Rare plant mitigation will be monitored by the Applicant over the long-term, to document that rare plant mitigation is functioning successfully. Should mitigation be found unsuccessful, remedial measures will be implemented as described in the Rare Plant Avoidance and Protection Plan. Mitigation proposed by the Applicant for this project is in proportion to the magnitude of the impact and is adequate to offset rare plant losses.

The request for more consultation and coordination, the potential need for yet more rare plant surveys of the project area, and the uncertainty of additional open-ended mitigation requests that the FEIS suggests may occur are overly burdensome to the Applicant. Further, implementation of FEIS BIO-21 has the potential to result in substantial project delays that could undermine ARRA economic stimulus goals and jeopardize the federal funding for the project, thus threatening the viability of the project and its potential to contribute toward the Secretary's and California's renewable energy objectives.

In reconciling the BLM and CEC decisions, it is important for the BLM to distinguish between (1) the recommendations of the CEC Commissioners as the decision makers, set forth in

[1] Available at http://www.energy.ca.gov/sitingcases/ivanpah/documents/index.html.

the PMPD and (2) the non-binding, post-PMPD recommendations of the CEC Staff for new or revised conditions in Staff filings dated 7/30, 8/27, and 9/4. In the CEC proceedings, CEC Staff advocates as a party to the CEC proceeding, like the Applicant and does not represent the decisionmaker. In fact, CEC Staff is barred under ex-parte rules from substantive communications regarding the proceeding with the decision-making CEC Commissioners.[2] Only the recommendations of the CEC Commissioners in the PMPD[3] and any errata filed thereto constitute the official positions of the Commission, as opposed to advocacy documents presented by parties.[4] Clearly, the focus needs to be on the decision makers and their final recommendations.

The BLM's ROD and the CEC's Final Decision and need not be identical; they need only avoid conflict, and strive for consistency. The BLM's decision is based in federal law, while the CEC approval is a state law decision. While it is important that the two decisions not conflict, consistency is all that is required. The Applicant requests that BLM and the CEC ensure that the mitigation measures imposed by the decision makers in the joint but separate federal and state processes do not conflict and do not impose duplicative or unnecessarily burdensome requirements.

Applicant also takes this opportunity to correct any misunderstanding related to the translocation of tortoise from the project site to the Mojave National Preserve. Applicant understands that representatives from the federal and state resource agencies involved in this proceeding discussed the possibility of translocating tortoise to a portion of the Preserve near the intersection of I-15 and Nipton Road. BrightSource began initial planning efforts to accommodate this translocation only to be informed by BLM that representatives from the Preserve declined to move forward with this option. The Applicant anticipates that the final Biological Opinion issued by the USFWS will establish the final parameters of any tortoise translocation program for the Ivanpah project.

II. APPLICANT'S ADDITIONAL COMMENTS ON THE FEIS

The Applicant has previously commented on the Draft EIS ("DEIS") and SDEIS, with particular emphasis on: 1) alternatives to the proposed action; 2) cumulative effects; 3) mitigation measures; and, 4) possible "connected" actions. We offer additional comments on these topics as presented in the FEIS.

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[2] 20 CCR § 1712.5. Staff as an Independent Party: "In carrying out its duties pursuant to this chapter, the staff of the commission shall be an independent party to all notice, application, and exemption proceedings. The staff is not required to petition to intervene in such proceedings."

[3] § 1749(a). Presiding Member's Proposed Decision: (a) At the conclusion of the hearings, the presiding member, in consultation with the other committee members shall prepare a proposed decision on the application based upon evidence presented in the hearings on the application.***"

[4] 20 CCR §1754(a). Hearings on Presiding Member's Proposed Decision: "(a) Adoption hearings on the presiding member's proposed decision or the revised proposed decision, if any, shall be held before the full commission after the comment period on the presiding member's proposed decision.***"

1. Alternatives – In the SDEIS, BLM added two alternatives to be considered in detail – the Mitigated Ivanpah 3 Alternative and the Modified I-15 Alternative. In the FEIS, the BLM has further elaborated its discussion of alternatives by making clear that there were at least an additional 22 alternatives considered in the NEPA process. The FEIS expressly states that these alternatives were "considered" but eliminated from further detailed analysis and consideration due to their failure to meet all or part of the purpose and need for the project. The FEIS also provides a detailed explanation for the elimination these alternatives from further consideration. In taking this action, BLM has fully satisfied its obligation under NEPA. As the Ninth Circuit has held, "an agency need not…discuss alternatives similar to alternatives actually considered, or alternatives which are 'infeasible, ineffective or inconsistent with the basic policy objectives for the management of the area.'" (*Northern Alaska Environmental Center v. Kempthorne*, 457 F. 3d 969, 978 (9th Cir. 2006).) For those alternatives not considered in detail, the agency need only provide a brief explanation for eliminating the alternative. (40 C.F.R. 1502.14(a).) BLM has, in fact, provided a detailed explanation for rejecting these alternatives. The resulting record supports favorable action on the Mitigated Ivanpah 3 Alternative.

While the Applicant believes that the alternatives analysis in the FEIS meets NEPA requirements, there are some details in the description of the Modified I-15 Alternative that should be further addressed. In discussing the full range of potential impacts for the Modified I-15 Alternative, the FEIS repeatedly asserts that the impacts of that alternative are "similar" or the "same as" impacts of the Mitigated Ivanpah 3 Alternative. (See pages 3-38 to 3-45 of the FEIS.) While the potential impacts of the Mitigated Ivanpah 3 Alternative and the Modified I-15 Alternatives on desert tortoise were correctly characterized as similar (as discussed below), the Applicant believes that the FEIS overstates the case for some similarities while ignoring or discounting other similarities. The effect of doing so is to understate the superiority of the Mitigated Ivanpah 3 Alternative to achieve the purpose and need of the proposed project.

For example, the joint DEIS/FSA concluded that the Modified I-15 Alternative "would be more visible to traffic along I-15," and potential effects from glare "would also be as pronounced or greater" than the Project.[5] Furthermore, as the power towers for the Modified I-15 Alternative would be located in "closer proximity to I-15… the level of solar radiation would be greater for the Modified I-15 alternative than for the Project.[6] In fact, the Modified I-15 Alternative was described as "less preferred" than the Mitigated Ivanpah 3 Alternative due to the impacts on visual resources. Therefore, as the Modified I-15 Alternative would not avoid or substantially lessen significant effects to visual resources, the Modified I-15 Alternative is not a reasonable alternative to the Ivanpah Project.

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[5] Joint DEIS/FSA, CEC Ex. 300, p. 4-49. The CEC and the Applicant have provided the BLM with copies of CEC Exhibits (designated as "Ex.") in its prior filings. The Bureau can also take official notice of these public record documents.

[6] Joint DEIS/FSA, CEC Ex. 300, p. 4-48.

Equally as problematic is the failure of the FEIS to note that impacts to desert tortoise, desert plant species, and other biological resources from both the Modified I-15 and the Mitigated Ivanpah 3 alternatives are essentially similar. As established in the record the Modified I-15 Alternative would be "located on high quality, relatively undisturbed habitat for desert tortoises" and "would not reduce the impact to special-status plant species."[7] For example, one CEC Staff witness testified that the Mitigated Ivanpah 3 Alternative and the Modified I-15 Alternative were essentially "different points on the same habitat,[8] and that "neither one [is] a significant improvement over the other."[9] The DEIS/FSA concluded that the Modified I-15 Alternative would have "*similar impacts*" to biological resources with respect to impacts to the desert tortoise, special-status plants, and animal species found at the Modified I-15 Alternative site.[10] CEC Staff further testified that, above 2,800 feet, the quality of habitat on the Modified I-15 Alternative site and the Mitigated Ivanpah 3 Alternative site is "all pretty good [habitat]."[11] Accordingly, the overwhelming weight of the evidence supports the conclusion that the Modified I-15 Alternative overall would have "*similar*" impacts on desert tortoise, desert plant species, and other biological resources.

2. Cumulative Impacts – The Applicant believes that the analysis of cumulative impacts in the FEIS is thorough and complete. The DEIS and SDEIS contained considerable analysis on cumulative effects. The FEIS strengthens and enhances the previous analysis by covering all of the cumulative impacts together and addressing new issues raised in DEIS and SDEIS comments. By gathering together in a single chapter the cumulative impacts analysis that was spread across the discussion of impacts in the DEIS, the FEIS offers a detailed and informative evaluation to be considered in developing the ROD. The cumulative impacts analysis in the FEIS therefore adequately considers the cumulative effects of past, present and reasonably foreseeable future actions in compliance with NEPA. See *League of Wilderness Defenders v. Allen*, 9th Cir. No. 09-35094 (August 13, 2010) at 11578.

3. Mitigation Measures – The FEIS contains a large number of proposed mitigation measures designed to ameliorate impacts caused by the project. In its recently issued PMPD, the CEC has outlined a similar suite of mitigation measures for the project. The Applicant understands the need for mitigation and has been actively working with both BLM and the CEC to design appropriate measures. A review of the mitigation measures suggested in the PMPD and the FEIS indicates that there are potentially conflicting mitigation measures suggested by the two documents. The attached table outlines these potentially conflicting measures and recommendations for reconciling them, Exhibit 2 hereto. The specific condition language for each of these conditions is set forth in Exhibit 3 hereto. Moreover, the Applicant identified

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[7] Joint DEIS/FSA, CEC Ex. 300, p. 4-45.
[8] CEC 1/14 Record Transcript 227. Note that the CEC Record Transcripts of the CEC Evidentiary Hearings are available at the following: http://www.energy.ca.gov/sitingcases/ivanpah/documents/index.html.
[9] 1/14 Record Transcript 226.
[10] Joint DEIS/FSA, CEC Ex. 300, p. 4-49.
[11] CEC 1/14 Record Transcript 198-199.

certain clerical errors to in the PMPD Conditions of Certification in a letter filed with the CEC on August 26, 2010, attached hereto as Exhibit 4.

4. Connected Actions – The FEIS notes at page 5-14 that cumulative impacts arising out of the Eldorado-Ivanpah Transmission Project ("EITP") are analyzed by incorporation of the cumulative impacts analysis found in the EITP Draft EIS published by the BLM. BLM published the EITP Draft EIS in April 2010. In that DEIS, the BLM states that the EITP project and the ISEGS project are "cumulative actions." (EITP DEIS at p. 2-35.) In comments submitted to the BLM on the EITP DEIS, BrightSource noted that the ISEGS project "is not dependent upon the EITP in order to operate at full power." BrightSource Comment Letter on EITP DEIS at 2. Given the incorporation by reference of the EITP DEIS analysis into the ISEGS FEIS, BrightSource is submitting a copy of its comment letter on the EITP DEIS as Exhibit 5 to these comments. By way of summary, while it is true that the current Southern California Edison lines would not provide sufficient capacity by itself for all phases of the ISEGS project, the operation of the ISEGS project does not rely solely on the EITP; other transmission options exist for the project.

III. APPLICANT'S RESPONSES TO SPECIFIC COMMENTS ON THE SDEIS

Finally, three comments submitted on the SDEIS by other parties require a specific response.

First, the Sierra Club asserts that by providing a map which shows a location for the Modified I-15 Alternative, the Applicant has "admitted" that a project at that location is viable from a technological or economic perspective. The Sierra Club's assertion is incorrect.

The map provided by the Applicant during the CEC proceedings was a map of the so-called "Sierra Club" alternative -- *not* a map of the Modified I-15 Alternative in the FEIS. The Sierra Club's alternative was a concept.[12] While the Sierra Club "concept" was the impetus for the BLM and CEC Staff to develop a NEPA and CEQA-compliant alternative known as the Modified I-15 Alternative, the map provided by the Applicant depicting the Sierra Club "concept" is separate and distinct from the fully developed Modified I-15 Alternative in the FEIS. The CEC Staff agreed that the Sierra Club alternative, and the map offered in rebuttal demonstrated that "the [Sierra Club's concept for an] I-15 alternative becomes little more than an alternative configuration for Phase 1 of the project." The map in the CEC process admits nothing more than the infeasibility of the Sierra Club's alternative concept.[13] It speaks not at all to the feasibility of the Modified I-15 Alternative in the FEIS.

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[12] The Sierra Club never offered a map of the Sierra Club Alternative in the CEC proceedings, thus leading to the need for the Applicant and CEC Staff to try to add some specificity to the ethereal concept. The map finally proffered by the Sierra Club of its concept was filed to the BLM, not the CEC, in the Sierra Club's February 11, 2010 comments on the DEIS.

[13] For a detailed discussion of the infeasibility of the Sierra Club's concept, see the Applicant's Reply Brief in the

For purposes of analysis, the Applicant also provided a theoretical map of a unit that could approximately, but not entirely, fit into the area indicated by the Sierra Club at its preferred location. However, the Applicant did not, and could not within the time constraints, determine if such a unit would be technologically feasible. From a business perspective, as pointed out in the Applicant's comments on the SDEIS, the Modified I-15 Alternative is not viable due to the extensive technical planning and engineering that would be required and the inability of the redesigned project under that alternative to meet power production objectives. Successful implementation of the project will require the financial incentives offered by the ARRA, which in turn depend on successful completion of financing. To qualify for those incentives, a renewable resource energy project must be "under construction" by December 31, 2010. As a result of the additional technical and engineering work needed to place the project on the Modified I-15 Alternative site, the Applicant would not be able to complete financing and assure financers of qualification for the financial incentives offered under ARRA, thus endangering the viability of the entire project.

Second, the Center for Biological Diversity ("CBD") suggests that two other alternatives are superior to the Mitigated Ivanpah 3 Alternative. CBD asserts that a distributed solar energy alternative would be superior to the Applicant's project. There is no basis in the record for CBD's claim. As established during the evidentiary hearings held by the CEC, a distributed solar alternative would not meet the renewable resource energy goals that the ISEGS project is designed to meet. For example, the joint DEIS/FSA considered the installation of 400 megawatts of distributed solar photovoltaics, "Rooftop PV," as an alternative technology to the Ivanpah Project and found the technology to be infeasible.[14]

The Rooftop PV alternative advocated by CBD fails to meet most of the project's basic objectives and suffers from numerous constraints that make it an infeasible alternative to the Ivanpah Project. In response to arguments advanced by CBD, the Applicant in its Opening Brief (a copy of this document was attached to Applicant's June 1, 2010 Comments on the SDEIS) provided additional information as to why rooftop PV is not within the reasonable range of feasible alternatives to the Ivanpah Project.[15] The detailed discussion in the Opening Brief contains numerous citations to the record. In summary fashion, the infeasibility of this alternative includes the following constraints:

- Central station solar projects like the Ivanpah Project are necessary because rooftop PV alone will not allow California to satisfy its Greenhouse Gas ("GHG") and Renewable Portfolio Standard ("RPS") objectives.[16]

CEC proceedings at pp. 14-23 (a copy of this document was attached to Applicant's June 1, 2010 Comments on the SDEIS). Indeed, the Sierra Club's arguments were based on non-Protocol level surveys conducted on the wrong lands, during the wrong season by improperly trained volunteers. (Applicant's Reply Brief, pp. 18-23.)

[14] Joint DEIS/FSA, Ex. 300, p. 4-64.

[15] Applicant's Opening Brief, pp. 47-56

[16] *Id*., pp. 47-49.

- Rooftop PV faces technological uncertainty that makes investing solely in rooftop PV to the exclusion of central station renewable power uncertain and risky.[17]

- Rooftop PV faces economic constraints that limit the technology.[18]

- Rooftop PV does not provide the substantial reliability benefits of central station renewable power like the Ivanpah Project.[19]

- Unlike central station power connected to the bulk transmission system, rooftop PV is not dispatchable, cannot be scheduled, and has no flexibility in targeting generation to changing transmission system needs, creating reliability issues.[20]

Rooftop PV requires additional "spinning" reserves to ensure reliability. Since spinning reserves tend to be conventional, fossil-fueled resources, the greenhouse gases and other pollutants associated with these firming spinning reserve resources need to be netted out of the Rooftop PV benefits.[21] The record in this proceeding confirms that Rooftop PV advocated by CBD fails to meet most of the project's basic objectives and suffers from numerous constraints that make it an infeasible alternative to the Ivanpah Project.

CBD also argues that the BLM should have considered a "phased" alternative for the Ivanpah Project. This argument is somewhat perplexing given that the Ivanpah Project has three powerplants that will in fact be constructed in three phases over the estimated forty-two month construction schedule. CBD's phasing arguments are also premised on the erroneous argument that the BrightSource Power Tower technology is not a proven technology. This is simply incorrect, and, CBD's opinion of the technological viability of the Ivanpah Project is not supported by any citation to any authority.

In fact, there is nothing in the record to support CBD's opinion on the technological viability of BrightSource's Tower Power technology. The technology BrightSource would deploy for the Ivanpah Project was extensively tested by the Department of Energy approximately thirty years ago, and produced 38 million kilowatt-hours of electricity during its operation from 1982 to 1988, which "demonstrated the viability of power towers."[22]

Third, Western Watershed Project suggests in its comment letter on the SDEIS that an "Ivanpah Dry Lake Bed" alternative should have been considered. In response to this comment, the BLM included a discussion of an "Ivanpah Playa" alternative in the FEIS. (FEIS at 3-81.)

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[17] *Id*., pp. 49-50.
[18] *Id*., p. 51.
[19] *Id*., pp. 51-52.
[20] *Id*., pp. 52-54.
[21] *Id*., pp. 54-55.
[22] U.S. Dep't of Energy, "Solar Power Towers Deliver Energy Solutions," *available at* http://www.wipp.energy.gov/science/energy/powertower.htm.

The FEIS properly concludes that such an alternative is neither economically feasible nor compatible with the established management objectives for that area. As properly noted in the DEIS/FSA, the Ivanpah Dry Lake Bed has high recreational use: "The Ivanpah Dry Lakebed alone is visited by an estimated 5,000 visitors,"[23] and "…the Ivanpah Dry Lakebed is visited by an estimated 5,000 visitors annually for land sailing annually."[24]

As noted in the DEIS/FSA, the Ivanpah Dry Lake has the following uses:

> Approximately 200 casual use permits are issued annually (these cover between 1 individual to 6 individuals) and approximately 5000 annual visitors. Approximately 12 Permitted and Organized events occur on the Dry Lake annually on both east and west sides. (Approximately 50% of these permitted and organized events occur on the west side and 50% on the east side, although the largest of the events tend to occur on the east side of the Dry Lake.) Permits are also given out that include use of both sides. Examples of such events include Championship Racing, Archery events, Kite buggying[25]

Similarly, the Recreation analysis in the DEIS/FSA notes the high recreational value of the Ivanpah Dry Lake. See Joint DEIS/FSA at p. 6.18-4.

In addition, the Ivanpah Dry Lake Bed is the low elevation point in the area, and is where most stormwater runoff ultimately collects during periodic rain events. Thus, the Ivanpah Dry Lake is not always dry. During precipitation events in the surrounding Clark Mountains, the storm water runoff transports down the mountains across the alluvial fan and deposits into the lake area. Ivanpah Dry Lake experiences extended periods of standing water up to several feet in depth several times per year. In order to make an electric power generating station viable in the lake bed, substantial damming of the area to prevent inundation and establishment of massive detention ponds, or diversion of storm water to another section(s) of the lake would be required, thereby reducing its recreation use for the above defined activities even further. Clearly, the existing uses of the Ivanpah Dry Lake Bed make it an infeasible alternative site for the Ivanpah Project. In contrast, the potential effects associated with stormwater run-off from the Ivanpah Mitigated 3 Alternative were found to be less than significant.[26]

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[23] Joint DEIS/FSA, CEC Ex. 300, p. 4-14.
[24] *Id*., p. 4-33
[25] *Id*., p. 5-13.
[26] Joint DEIS/FSA, p. 6.9-1. See similar conclusions in the CEC PMPD Findings of Fact 2-9 and Conclusion of Law 3. "The ISEGS will not result in any unmitigated, significant project-specific or cumulative adverse impacts to Soil or Water Resources. PMPD Water Resources at pp. 16-17. Available at the following website: http://www.energy.ca.gov/sitingcases/ivanpah/documents/index.html.

IV. Conclusion

The Applicant appreciates this opportunity to provide its comments on the FEIS. We urge BLM to issue a final decision on the ROW application soon after the close of the 30-day comment period, so that, if the ROW is approved, the Applicant can commence construction of the project in time to meet the deadline established for the financial incentives included in ARRA for renewable resource energy projects.

Dated: September 7, 2010

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EXHIBIT 1

APPLICANT'S COMMENTS
On
THE PRESIDING MEMBER'S PROPOSED DECISION
For
THE IVANPAH SOLAR ELECTRIC GENERATING SYSTEM

(07-AFC-5)

(SEPTEMBER 2, 2010)

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

Application for Certification for the IVANPAH SOLAR ELECTRIC GENERATING SYSTEM	))))	Docket No. 07-AFC-5

APPLICANT'S COMMENTS
On
THE PRESIDING MEMBER'S PROPOSED DECISION
For
THE IVANPAH SOLAR ELECTRIC GENERATING SYSTEM

September 2, 2010

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INTRODUCTION

We thank the Committee for its continuing hard work on this project. We have several comments on the PMPD, as noted below, but ask that the Committee place its highest priority on reviewing and reconsidering BIO-17. In particular, the Commission should consider how this condition would be implemented, as it appears to us to not only be infeasible, but to place demands on the project that would make the project itself infeasible.

I. IN EITHER ITS CURRENT STATE IN THE PMPD, OR IN THE MORE DAMAGING STATE PROPOSED BY STAFF SINCE RELEASE OF THE PMPD, BIO-17 WILL MAKE IT IMPOSSIBLE TO FINANCE AND THUS BUILD THE PROJECT .

In its current confusing state in the PMPD, or in the more damaging state proposed by Staff since release of the PMPD, BIO-17 unnecessarily threatens the viability of the Ivanpah Solar Electric Generating System project– unless the condition is modified, consistent with the record in this proceeding. In requesting the Committee to reexamine BIO-17, Applicant respectfully requests that the Committee take one of two actions. First, the Applicant respectfully requests that the Committee replace the PMPD version of BIO-17 with the Applicant's revised BIO-17. In the alternative, if the Committee is unwilling to use the Applicant's proposed version of BIO-17, the Applicant respectfully requests that the Committee include within the Commission's Final Decision a clear statement of Commission "Intent" as to exactly how the Committee envisions the implementation of BIO-17. That statement of Commission Intent would be a road map for what is now a confusing, and unimplementable, obligation.

In significant part, Applicant is concerned that it does not fully understand Condition BIO-17, and either would be unable to implement it as written or, due to that lack of understanding, would inadvertently fail to fulfill the Commission's intent, whether through action or omission. At the PMPD Hearing, we suggested that the Staff version of BIO-17, in particular, be "mapped out" to evaluate whether it could in fact be implemented as written. Applicant submits that it cannot.

Fortunately, BIO-17, as provided in the PMPD, can be revised with minimal changes to conform to record in this proceeding and the applicable standards, providing a reasonable and implementable condition. BIO-17 should be revised to accomplish the following:

A. BIO-17 should distinguish between the different paths for (1) project owner land acquisition and (2) third party land acquisition.
B. BIO-17 should not presume to dictate to BLM how BLM will use its 1:1 compensatory mitigation.
C. BIO-17's "Double Counting" of the "Long-Term Management and Maintenance Fund" should be corrected.
D. BIO-17 should expressly provide for a phase-in of the Security obligation.
E. BIO-17 should not, as the Staff has urged in its post-PMPD filings, convert the *voluntary* SBx8 34 in-lieu fee program into mandatory obligations.

Applicant has proposed revisions to the PMPD's versions of BIO-17, consistent with these concepts. Applicant's proposed revisions are provided in Attachment 1 hereto.

A. BIO-17 Should Distinguish Between The Different Paths For (1) Project Owner Land Acquisition And (2) Third Party Land Acquisition.

The PMPD offers two distinct, but related paths for the satisfaction of the Staff-requested acquisition of additional desert tortoise compensation lands: (1) project owner acquired lands and (2) third party acquired lands via an in-lieu fee program.

While both paths aim at ensuring that lands are acquired, the paths are distinct. The Applicant's proposed revisions to BIO-17 recognize these two distinct paths. The Applicant has added to the PMPD's language "Verification" language with two separate headings: "Project Owner Acquired Lands" and "Third-Party Acquired Lands."

B. BIO-17 Should Not Dictate To BLM How BLM Will Use Its 1:1 Compensatory Mitigation.

The Commission has been clear in that it respects the powers, authorities and duties of its federal partner, the BLM. However, the PMPD version of BIO-17 presumes to dictate to the BLM precisely how the BLM should use its 1:1 compensation funds:

> The remaining third of the 3:1 compensatory mitigation, to satisfy BLM's mitigation requirements and the balance of the Energy Commission's mitigation requirements, shall be developed in accordance with BLM's desert tortoise mitigation requirements as described in the Northern and Eastern Mojave Desert Management Plan (BLM 2002). BLM's compensatory mitigation plan, serving as one third of the 3:1 mitigation ratio required to satisfy CESA, would include acquisition of up to 4,073 acres [sic] of land within the Eastern Mojave Recovery Unit, or desert tortoise habitat enhancement or rehabilitation activities that meet BLM, CDFG, USFWS and Energy Commission approval, or some combination of the two.

As a matter of law, the Commission cannot legally bind the BLM in the BLM's implementation of its plenary authority under federal law. As a matter of practice, the Commission's respect for its federal partner means that BIO-17 should not contain provisions that purport to limit the BLM's exercise of its legal authorities under federal law.

Applicant's revised BIO-17 removes this language in favor of recognition of the legally defensible position that BLM's 1:1 mitigation will be employed by BLM consistent with BLM's "responsibilities as the federal land manager." As recognition of the federal mitigation obligations, Applicant's proposal also includes acknowledgement of the BLM's determination that the compensatory mitigation for the project shall include 50 miles of desert tortoise fencing in the Northeastern Mojave Recovery Unit and the habitat restoration of at least 50 off-road vehicle routes within the Desert Wildlife Management Area.

C. BIO-17's "Double Counting" of the "Long-Term Management and Maintenance Fund" Must Be Corrected.

Given the complexity of Staff's proposed BIO-17, it is not surprising that it contains a "double counting" of the "Long-Term Management and Maintenance Fund." This double counting should be corrected so that Applicant has, at most, a single obligation to pay any Long-Term Management and Maintenance Fund.

The Long-Term Management and Maintenance Fund was formerly referred to as an "endowment." The funds are intended to provide, as the new, longer name suggests, for the Long-Term management and maintenance of acquired lands. Logic dictates that this fee should be imposed only once.

Unfortunately, the Long-Term Management and Maintenance Fund is double counted. First, there is a Long-Term Management and Maintenance Fund imposed as part of the "Security" formula for the in-lieu fee in BIO-17's Section 4, "Energy Commission Complementary Mitigation Security" on pages 65-66 of the PMPD. Second, the Long-Term Management and Maintenance Fund is included as a separate and distinct separate obligation under 5.d of the PMPD, "Long-Term Management Endowment Fund" on page 67.

The effect of the double-counting of the Long-Term Management and Maintenance Fund is the payment of a Long-Term Management and Maintenance Fund in 5.d that compounds the Long-Term Management and Maintenance Fund in Section 4. Like compounding interest, the Applicant is asked to pay a Long-Term Management and Maintenance Fund that includes in its base calculation a second Long-Term Management and Maintenance Fund. This double-counting must be removed.

To correct this double-counting error, the Applicant's revised BIO-17 removes the Long-Term Management and Maintenance Fund line item from Section 4 of the PMPD version of BIO-17. The Long-Term Management and Maintenance Fund remains in the language preserved from the PMPD's Section 5.

The inclusion of the Long-Term Management and Maintenance Fund in the Section 5.d language is correct in that this fee should be separate and distinct from the Security to reflect the Project Owner Acquired Lands scenario. If the project owner successfully secures lands, there should be a single Long-Term Management and Maintenance Fund, as reflected in the Section 5.d language. The Long-Term Management and Maintenance Fund is thus counted only once, as it should be.

D. BIO-17 Should Allow For A Phase-In Of The Security Obligation

BIO-17 should allow for a phase-in of the Security obligation. Such a phase-in of Security obligations is consistent with the phasing of the three powerplants over a 48-month construction period. A phase-in is also consistent with the fact that "security" of land acquisition is moot if and when sufficient suitable lands are acquired; that is, posting security to acquire lands is moot once those lands have been identified and secured by a legally binding option agreement or other legal instrument.

To be clear, the Appellant is not suggesting that mitigation be delayed; instead, the Applicant is simply seeking to synchronize the phased-construction schedule with a phase-in

Security schedule. As set forth below, the Security payment can and should proceed in sync with the phasing of the construction schedule.

It is important to recognize the significant and very real distinction between the capital costs structure and front-loaded capital outlay for this renewable, solar energy project and that of a conventional generation facility.

In a conventional generating facility, like a natural-gas fired powerplant or even coal and nuclear power, the most significant costs are the costs of fuel. Those fuel costs are spread out over the life of the project. For example, a natural gas project is not required to pay for all of its natural gas fuel costs up front. Instead, the fuel costs can be spread across the useful life of the natural gas facility. Moreover, over the life of that facility, the conventional plant operator will have the opportunity to "hedge" its fuel prices over several years, adjusting and improving its fuel costs over time or gaining certainty through Long-Term commitment.

In marked contrast, all of the costs of this solar thermal facility are borne up front. The solar renewable projects major costs are the upfront capital costs. All of that capital must be "front loaded" in terms of equipment, materials, and labor. While there are obvious savings in the "out years" from not having to manage for a fuel cycle, the fact remains that the capital costs and indeed the majority of the costs for a solar thermal project are "up front" costs. Consistent with the State of California's Renewable Portfolio Standard ("RPS") and greenhouse gas ("GHG") policy objectives, the Commission must be take into consideration the impacts of "front loading" mitigation costs in a manner that is inconsistent with the projects potential impacts.

Applicant's revised BIO-17 synchronizes the phased construction with the phased-in Security as follows:

- At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.

- At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall either (1) provide the final installment of Security in the amount of sixty eight percent (68% of the Total Security) or (2) provide information that demonstrates to the CPM and the BLM's Authorized Officer that 7,164 acres of land

> suitable for desert tortoise has been identified and secured through a legally binding option agreement or other legal instrument.

The phasing of Security to be synchronized with the phasing of construction is the only reasonable and feasible means for the Ivanpah Solar Electric Generating System to be constructed.

If the Commission, instead, elects to "front load" Security obligations, that front-loading coupled with the need to front-load the capital costs of this renewable facility may make it impossible to finance the Project. Applicant's revised BIO-17 offers a means of synchronizing Security with the phased construction schedule in a manner that will allow this important project to jumpstart California's progress toward meeting its RPS and GHG goals.

II. THE CALIFORNIA DEPARTMENT OF FISH & GAME AGREES THAT THE REAT PROGRAM DOES NOT AND SHOULD NOT APPLY TO THE IVANPAH SOLAR PROJECT.

Staff points to one table, a July 23, 2010 document titled "Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown for use with the REAT-NFWF Mitigation Account" as the basis for draconian changes to BIO-17. However, the California Department of Fish & Game ("CDFG") disagrees with the use of this REAT table for the Ivanpah Project.

In a letter dated September 1, 2010 to the Committee for this proceeding, Kevin Hunting, Chief Deputy Director of CDFG, clarifies that the REAT document is a "working draft" that should not and does not apply to the Ivanpah Solar Project:

> The document is a working draft that does not yet reflect the position of all of the REAT agencies with respect to biological mitigation implementation and it lacks the context of representing only one of several available mitigation options. As such it does not reflect the Department's approach to securing mitigation costs and includes costs that may not be relevant for the state to exact. (CDFG Letter, September 1, 2010, p. 1; Attachment 2 hereto.)

CDFG is unambiguous in stating that the draft REAT table, relied upon by Staff for its post-PMPD revisions to BIO-17, is simply not relevant or applicable to the Ivanpah Solar Project:

> We therefore recommend either removal of the table from any official decision-making document or clarify that it is a working draft REAT document and *should not be relied upon for this specific project*. (*Id*.; emphasis added.)

There is no doubt that Staff relied on the REAT numbers for its post-PMPD changes to BIO-17, as well as BIO-16, BIO-18, and BIO-20. As Staff witness Dr. Sanders testified at the August 24th hearing:

> MS. SANDERS: Waters of the state, desert tortoise compensatory mitigation and rare plant land acquisitions all reflect the new REAT numbers.
>
> MR. DE YOUNG: Which condition numbers are those?
>
> MS. SANDERS: That would be -- so it would be 17, 18 -- oh, Bio 19, bighorn sheep mitigation, and Bio 20.
>
> MR. HARRIS: 17.
>
> MS. SANDERS: And 16. I'm sorry. Let me go through it again. Bio 16, burrowing owl. Bio 17, desert tortoise compensatory mitigation. Bio 18, special status plant mitigation. And not Bio 19. There's no land acquisition with that. Bio 20, stream bed measures. Any other? That's it. (8/24 RT p. 88.)

The Staff's reliance on this working draft REAT document is simply misplaced.

It would be wholly inappropriate to accept the Staff's invitation to use this draft document as the basis for mitigation costs for this Project. Accordingly, the Commission should give the Staff's post-PMPD revisions to BIO-17 no weight and instead adopt Applicant's revised BIO-17.

III. BIO-17 SHOULD NOT, AS THE STAFF HAS URGED IN ITS POST-PMPD FILINGS, CONVERT THE "OPTIONAL, VOLUNTARY" SBX8 34 IN-LIEU FEE PROGRAM INTO MANDATORY OBLIGATIONS.

BIO-17 should not, as the Staff has urged in its post-PMPD filings, convert the voluntary SBx8 34 in-lieu fee program into mandatory obligations. Instead BIO-17 should allow for the possibility that the project owner could later "volunteer" to join the to-be-developed SBx8 34 in-lieu fee program, subject to that later participation being approved by the CPM as satisfying the

substantive requirements of BIO-17. The Committee should make none of the SBx8 34 changes proposed by Staff in its post-PMPD filings.

The SBx8 34 programs hold promise, but they do not exist today. Accordingly, BIO-17 should allow for the possibility that the project owner could later "volunteer" to join the to-be-developed SB 34 in-lieu fee program, subject to that later participation being approved by the CPM as satisfying the substantive requirements of BIO-17. Applicant's revisions to BIO-17 allow for the possibility of future participation in the yet-to-be-developed SBx8 34 in-lieu fee programs.

A. SBx8 34 Establishes an "Optional, Voluntary" Program that Requires Developers to Affirmatively "Elect" to Join those To-Be-Developed Programs.

CDFG's position on the inapplicability of the draft working REAT document is unambiguous.[1] In addition, there can be no doubt that the programs established by SBx8 34 are *voluntary*. The plain language of SBx8 34 is unambiguous. Section 2099(b)(3) provides: "The fund shall serve, and be managed, as an ***optional, voluntary method for developers or owners*** of eligible projects to deposit fees to complete mitigation actions meeting the conditions of subdivision (c) of Section 2069…." (Emphasis added.)

Similarly, Section 2099(b)(5) notes that the program applies only if the developer makes an affirmative election to volunteer for the SBx8 34 programs: "***A developer or owner of an eligible project that elects*** to use mitigation actions developed and authorized by the department pursuant to Section 2069 shall remit fees to the department for deposit into the fund for those mitigation actions in an amount that reflects the determination by the Energy Commission.…" (Emphasis added.) Similarly, Section 2099(b)(1) allows for the "department shall collect a fee from the owner or developer of an eligible project that ***elects*** to use mitigation actions developed and approved by the department pursuant to Section 2069…." (Emphasis added.)

Even the Legislative Counsel's Digest[2] reflects the optional, voluntary nature of the SBx8 34 program, requiring the developer to affirmatively volunteer:

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[1] In the interest of clarity, CDFG's letter speaks to the inapplicability of the working draft REAT table to the Ivanpah Project. CDFG has not reviewed Applicant's PMPD comments, in general, or Applicant's proposed revisions to the PMPD conditions, in particular. CDFG's letter should not be read as an endorsement of Applicant's PMPD comments.

[2] Though not part of the statutory language, the Legislative Counsel's Digest has been relied upon as a source of determining legislative intent.

> "The bill would establish the Renewable Energy Resources Development Fee Trust Fund as a continuously appropriated fund in the State Treasury to serve, and be managed, as an ***optional, voluntary method for developers or owners of eligible projects***, as defined, to deposit fees sufficient to complete mitigation actions established by the department and thereby meet their requirements pursuant to CESA or the certification authority of the Energy Commission." (Emphasis added.)

The plain language of SBx8 34 programs is unambiguous: these SBx8 34 programs are optional, voluntary programs that require an election be made, if and when those programs are finalized. Moreover, without an APA-compliant rulemaking, the SBx8 34 programs will be "guidance" subject to change as Administrations and agency personnel change. Staff's attempts to convert the optional into the mandatory in Staff's post-PMPD filings must be rejected.

B. Staff Seeks to Convert the Optional, Voluntary SBx8 34 In-Lieu Fee Programs into Mandatory Conditions in BIO-17.

The Staff's post-PMPD filings on BIO-17 seek to convert the optional, voluntary SBx8 34 programs into mandatory Conditions of Certification. As a matter of law, the Commission must reject Staff's efforts to convert an optional, voluntary program into a mandatory program.

The working draft REAT document is titled, "Desert Renewable Energy REAT Biological Resource Compensation/Mitigation Cost Estimate Breakdown ***for use with the REAT-NFWF Mitigation Account***." (Emphasis added.) "NFWF" is the "National Fish and Wildlife Foundation." The "REAT-NFWF Mitigation Account" – Staff's sole basis for its post-PMPD changes to BIO-17 -- was created by SBx8 34.

Section 2099(b)(2) of SBx8 34 states, " Upon direction by the department, the Controller shall create any accounts or subaccounts within the fund that the department determines are necessary or convenient to facilitate management of the fund."

As explained in the SBx8 34 Draft Interim Mitigation Strategy ("IMS"), the NFWF account is a SBx8 34 established account:

> "Concurrent with development of the IMS, the Department has taken the following actions *to ensure SB 34 provisions will be operational*:
> 1) Established, through the National Fish and Wildlife Foundation (NFWF) MOU, processes to accept and manage mitigation funds received under the in-lieu fee program and that DIG can authorize money to be disbursed from the *trust account into NFWF's REAT*

> *account under DFG's authority to contract with 3rd parties to implement the mitigation actions*. (Draft IMS, p. 22.)

The "REAT-NFWF Mitigation Account" exists because SBx8 34 creates the program. For Staff to argue otherwise, defies both the facts and logic.

Staff attempts to cure this fatal flaw by suggesting that the SBx8 34 based REAT program "may be revised with updated information." (Staff's PMPD Comments – Set 1, p. 45.) This is a smokescreen. Converting an option, voluntary program into a mandatory condition is not cured by simply requiring the project owner to comply with the "updated" SBx8 34 calculations.

Staff's post-PMPD changes to BIO-17 are all predicated on converting the "optional, voluntary" SBx8 34 programs into mandates. The Staff cites to a July 23, 2010 REAT document that – in addition to being draft – expressly states in the title to the document that it must be "used with the "REAT-NFWF Mitigation Account." SBx8 34 dictates voluntary participation, meaning Staff cannot convert the program to a regulatory mandate. Staff's post-PMPD revision must be rejected in total.

IV. THE COMMITTEE SHOULD ADOPT THE APPLICANT'S REVISED BIO-17 AS IT IS SUPPORTED BY THE RECORD AND WILL ALLOW THE PROJECT TO BE FINANCED AND CONSTRUCTED.

The discussion above in Section I sets forth the Applicant's prospered improvements to BIO-17. Section II explains why the Commission should not adopt the SBx8 34 mitigation scheme proposed by Staff in its post-PMPD filings. This section summarizes the Applicant's proposed changes to BIO-17, consistent with the record in this proceeding.

A. Applicant's Proposed Revisions to BIO-17 Present a Reasonable and Balanced Approach to Desert Tortoise Mitigation That is Supported by the Record.

Attachment 1 sets forth Applicant's revised BIO-17. In summary, as revised by the Applicant, BIO-17 does the following:

1. Distinguishes between the different paths for (1) project owner land acquisition and (2) third party land acquisition. (Verification Sections 1 and 2)

2. Removes the CEC Staff's attempts to dictate to BLM how BLM will use its 1:1 compensatory mitigation. (Condition language deletions)

3. Keeps, with revisions, Staff's criteria for compensation lands. (Section 3)

4. Allow for a phase-in of the Security obligation: (Section 4)
    a. Separate paths for project owner acquired lands versus third party acquired lands
    b. Removes the "double counting" of Endowment money, by eliminating the endowment from the Security section. Security is for acquisition. These enumerates costs should be acquisition related costs only. Endowment is covered separately in Section 6.

5. Keeps the Staff's transfer of title provisions, with slight revisions. (Section 5)

6. Keeps and revises Staff's Long-Term Management and Maintenance (endowment) concept. (Section 6)

7. Keeps Staff's Post-Construction Reporting Requirements. (Section 7)

8. Allows for "optional voluntary" SBx8 34 participation, using the "optional, voluntary" language of the statute. (Section 8)

9. Corrects acreages to correspond to the acreage numbers set forth in the Applicant's Biological Mitigation Proposal (also known as Mitigated Ivanpah 3) (Ex. 88) and uses these corrected acreages in the calculations set forth in revised BIO-17.

B. Staff's Revised BIO-17 Is Both Contrary to Law and Bad Public Policy.

As discussed above, the Staff's post-PMPD changes to BIO-17 convert an optional, voluntary program into a regulatory mandate. As such, they are contrary to law.

From a policy perspective, Staff originally sought $20 million dollars for Desert Tortoise mitigation with a 25% additional cap for a total obligation of approximately $25 million – a little more than $1 million dollars for each of the twenty-three live desert tortoise found on or adjacent to the site during protocol-level surveys (in fact, under the M3 Proposal, the number of tortoise within the area of the site would only be seventeen). In its so-called "REAT" formulation, the Staff has (1) increased the base dollar amount from $20 million to approximately $25 million and (2) removed the cap, all in the name of "certainty." The project is "certainly" in grave jeopardy if BIO-17 remains unchanged.

As was established at the August 24th Committee Conference, SBx8 34 provides only $10 million for "advanced mitigation" for the entire State of California and, unlike the fees that must be paid by private parties, that $10 million must be repaid to the State, pursuant to Section 2009(b)(4). In this case, Staff's post-PMPD changes to BIO-17 seek more than $25 million and

that $25 million is subject to being increased as land costs increase, a virtual certainty with state-mandated land acquisition requirements.

Can it really be the policy of the State of California to provide $10 million capped for a state-wide program that must be repaid while asking one renewable project to provide a minimum of $25 million uncapped for a single project?

No, it cannot.

As both a matter of law and policy, the Committee should accept the Applicant's revised BIO-17.

V. THE COMMITTEE DOES NOT HAVE TO DELAY THIS PROCEEDING TO ADDRESS THE INTERVENORS' ARGUMENTS RELATED TO THE DESERT TORTOISE RELOCATION PLAN BEING DEVELOPED BY THE FEDERAL GOVERNMENT PURSUANT TO FEDERAL AUTHORITIES.

At the August 24, 2010, PMPD Conference and Evidentiary Hearing, the Intervenors expressed much concern and consternation regarding the DRAFT Biological Opinion and its desert tortoise relocation or translocation plan. While the Intervenors suggest that the Committee cannot proceed without the final desert tortoise translocation plan, this is simply untrue.

To begin, the PMPD appropriately addresses the federal desert translocation plan. Specifically, Condition BIO-7 provides, among other things, that "The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the Desert Tortoise Translocation Plan…." Similarly, BIO-9 requires, "The project owner shall develop and implement a final Desert Tortoise Relocation/Translocation Plan (Plan) that is consistent with current USFWS approved guidelines, and meets the approval of BLM, USFWS, CDFG and Energy Commission staff." The PMPD covers all aspects of translocation. There are no gaps.

Next, it is important to remember that the translocation plan being developed as part of the DRAFT federal Biological Opinion is a creature of *federal law*. To the extent this issue is one of federal law, the Commission preempted. There are no decisions that the Commission must (or can) make on these federal issues and thus no reason for delay of these state law proceedings.

Further, Commission precedent confirms that the Commission need not have a final federal Biological Opinion before it acts to certify a project. The Sutter Powerplant Project, the Delta Energy Center, and the Metcalf Energy Center, to name just a few, were all certified before

the final federal Biological Opinion was issued. Each contained conditions similar to BIO-7 and BIO-9 in the PMPD. There were no defects in those prior cases given the imposition of appropriate Conditions of Certification, and there are no defects here. The federal nature of the Biological Opinion means that the Commission need not make any decision related to these issues before certifying the project.

VI. BIO-18 SHOULD BE REVISED AS THE APPLICANT PROPOSES TO REFLECT THE FACT THAT SEVERAL OF THE SPECIES OF CONCERN ARE "CRYPTIC" AND CAN FOR ALL PRACTICAL PURPOSES DISAPPEAR FOR YEARS DUE ONLY TO DROUGHT; THEREFORE MORE REALISTIC PLANT PROTECTION GOALS ARE NECESSARY.

Staff and Applicant were largely in accord with most of the proposed language for BIO-18. This accord is reflected in the March 29, 2010 Staff's Compilation of Edits to recommended Conditions of Certification.

Applicant proposes additional revision to the language from Exhibit 317 to assure that plant "Protection Goals" are practical and attainable. Specifically, for field verification in this desert environment it is important to distinguish between (1) long-lived perennials (desert pincushion and Parish's club-cholla) which are present year in and year out regardless of the rainfall that occurs, and (2) plants that are adapted to drought by dying back and/or going to seed, thereby "hiding" from the substantial and prolonged drought periods that typify the desert, are "cryptic." These cryptic plants typically exhibit large swings in germination and growth in response to precipitation variability and include the nine-awned pappus grass, Mojave milkweed, and Rusby's desert-mallow. Cryptic species thrive in wet years and remain largely dormant in dry years. They are *not* long-lived perennials that are present in wet and dry years.

For example, in 2007 no plants of the nine-awned pappus grass were found during intensive survey but, in 2008, there were more than 8,000 individual localities of nine-awned pappus grass. Low rainfall prevailed in 2007, while above normal rainfall supported unusually lush vegetation conditions in 2008. While a 75 percent protection goal is practical for long-lived perennials like the pincushion and club-cholla, because of the nature of the other species' adaptation to the desert's highly variable precipitation regime, a 75% goal for them cannot be implemented in any meaningful way , due to the enormous variability inherent in cryptic plants.

The Applicant of course agrees to retain the seventy-five percent protection goal for the two rare cactus species, since under natural conditions individuals of these species do persist from year to year. These are set forth and defined in *Ex.88* as complete avoidance by removal of 476 acres of project acreage and establishing three Rare Plant Mitigation Areas or through salvage/transplantation of individual plants onsite. For two remaining species, Mojave milkweed and Rusby's desert mallow, protection will be accomplished by removing 476 acres from the project area, and by establishing three Rare Plant Mitigation Areas, in addition to installing protective fencing around individuals within the heliostat array, to the maximum extent it is feasible to do so. Because the nine-awned pappus grass emerges in abundance only in years with adequate summer rains, the establishment of numerous small fences "halos" within the heliostat array is infeasible for this species. Based on the field surveys, it is expected that a considerable seed bank for nine-awned pappus grass is present in the Rare Plant Mitigation Areas onsite that would continue to be expressed in favorable years. Monitoring of these areas will be conducted and prescribed in the Special-Status Plant Remedial Action Plan.

Applicant has also removed the reference to conducting additional spring/fall rare plant surveys because they would not contribute information useful in defining the Special-Status Plant Protection Areas. Reconnaissance conducted the week of August 23, 2010 documents the failure of summer rains (not an uncommon event in the typically summer-dry Mojave Desert) and consequent absence of any summer-fall germination or growth. The existing survey data are sufficient. Rare plant surveys of the entire site including the one mile buffer were conducted in 2007 and again in 2008. As the CEC Staff stated, these surveys "were of the highest professional quality and met all applicable guidelines" in place at the time surveys were conducted (*Staffs Reply Brief dated 4/16, page 24*.) Additionally, Applicant's submittals have been found to be data adequate. Additional data will not substantially assist with defining the location of Special-Status Plant Protection Areas. Three Rare Plant Mitigation Areas have already been defined in the Applicant's February 2010 Biological Mitigation Proposal ("Mitigated Ivanpah 3") (*Ex. 88*). The location of the Special-Status Plant Protection Areas within the heliostat array will be defined to a large extent by engineering constraints such as the location of the drive zones in between the heliostat rows. For these reasons, additional preconstruction surveys are unnecessary and overly burdensome.

Applicant has also removed reference to the purchase of Mojave milkweed acquisition lands and long-term surveys on public lands for the sake of obtaining information on rare plants located beyond the project boundary. Rare plant mitigation described in the Applicant's February 2010 Biological Mitigation Proposal ("Mitigated Ivanpah 3") (*Ex. 88*), includes removal of 476 acres from the project, the establishment of three Rare Plant Mitigation Areas, the salvage/transplantation of rare cactus located outside the Rare Plant Mitigation Areas, and the installation of protective fencing around Mojave milkweed and Rusby's desert mallow localities within the heliostat array. Rare plant mitigation will be monitored by the Applicant over the long-term, to document that rare plant mitigation is functioning successfully. Should mitigation be found unsuccessful, remedial measures will be implemented as described in the Rare Plant Avoidance and Protection Plan. Mitigation proposed by the Applicant for this project is in proportion to the magnitude of the impact and is adequate to offset rare plant losses. In particular, surveys of public lands for duration of up to ten years would not offset rare plant impacts related to the proposed project and they are overly burdensome. Applicant revisions to BIO-18 are attached hereto in Attachment 1.

VII. THE PMPD SHOULD BE REVISED TO REFLECT SLIGHT CHANGES IN OTHER IMPORTANT CONDITIONS OF CERTIFICATION.

There are a number of Conditions of Certification that require modification. The text for changes to Conditions of Certification (other than BIO-17 and BIO-18) are included in Attachment 3.

A. BIO-12 Should Be The March 29, 2010 Version Agreed to By the Parties, Not Staff's Post-PMPD Revisions.

As stated in its August 26, 2010 letter to Hearing Officer Kramer regarding clerical errors in the PMPD language, Applicant supports adopting the revised language agreed to by Staff and Applicant as set forth in Staff's March 29, 2010 filing entitled, Energy Commission Staff's Compilation of Edits to Recommended Conditions of Certification- Ivanpah Solar Electric Generating System (07-AFC-05). (Ex. 317.)

In its post-PMPD filings, Staff seeks to impose a Raven Management Fee. This fee program is not mentioned in the record of this proceeding. If and when a final, regional plan is

developed, the Ivanpah Solar Electric Generating System, like every other project, would be subject to the then-created, legally-enforceable program.

It is plain legal error for the Commission to add in such a fee program, absent the required underlying record. Staff's post-PMPD additions to BIO-12 must be rejected.

B. Staff's New Condition BIO-21 Purports to Address an Impact Found to Be Less than Significant, and Thus Staff's Addition Is Not Supported by the Record.

At the PMPD Conference, Staff noted that it has recommended an additional Biology condition BIO-21, related to bird and bat issues.[3] However, there is no finding of fact in the PMPD that the project has the potential to have significant impacts on birds and bats; those potential impacts are less than significant . (PMPD, Biological Resources, pp. 37-38.) While lacking any finding of significant impacts, Staff in its post-PMPD comments added BIO-21, because "it felt good": "So it felt good to do it, even though we didn't necessarily think it was warranted at the beginning." (PMPD Conference Transcript, 8/24 RT 140.)

Feelings aside, the imposition of a Condition of Certification absent a finding of significant impact is contrary to law. Staff's new BIO-21 must be rejected.

C. BIO-2O Regarding Waters of the State Should Be Revised to Parallel the Desert Tortoise Mitigation Obligations in BIO-17

Condition BIO-20 should be corrected. To begin, the PMPD language has an incorrect acreage total. The correct acreage of potentially affected waters of the state is 175 acres of state jurisdictional waters, not 198.

The Applicant has also proposed changes to BIO-20 to parallel changes to BIO-17. In particular, the changes to BIO-20 follow the same phasing of security as BIO-17. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2. In addition, at least fifteen

[3] To be clear, the BLM's FEIS has a different condition, numbered BIO-21, related to rare plant and botany issues. The FEIS Condition and Staff post-PMPD recommendation are separate and distinct, another reason to reject Staff's late proposed addition.

days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall provide the final installment of Security in the amount of sixty eight percent (68%) of the Total Security, unless the project owner has decided to acquire appropriate mitigation lands.

Staff and Applicant contemplated that the desert wash compensation land requirement could be nested within the compensation land requirement discussed in BIO-17. It is currently Applicant's plan to propose desert tortoise compensation lands that include the prescribed amount of desert wash acreage nested within the parcels as satisfaction of the 2:1 mitigation requirement for desert tortoise habitat. The proposed language for BIO-20 is set forth in Attachment 3.

D. While REC-1 Is Not Required as Matter of Law, The Staff and Applicant Have Agreed to Revised Language for REC-1 To Memorialize the Applicant's Commitment to Built an Interpretative Center.

The PMPD agrees that as a matter of law, REC-1 is not required because Public Resources Code Section 25529, focused on coastal powerplants, is simply inapplicable to the facts in the record before the Commission.[4] Nevertheless, Applicant has committed to build a Solar / Ecological Interpretive Center to be developed to in the vicinity of the ISEGS project. The proposed language memorializing this commitment is set forth in Attachment 3.

E. To Correct A Cut and Paste Error, TRANS-4 In the PMPD Should be Deleted and Former TRANS-5 Renumbered and Reinstated.

The Applicant recommended deletion of TRANS-4. Instead, TRANS-5, an uncontroverted condition, was mistakenly deleted. TRANS-4 (Verification Of Power Tower Receiver Luminance And Monitoring) should be deleted. TRANS-5 (Power Tower Lighting) should be re-inserted:

[4] The record clearly shows that the Project will not cause significant impacts to recreation, as the Project will not disrupt recreation opportunities, and the project's indirect impacts by itself would not substantially diminish the quality of outdoor recreation experiences. Furthermore, even if Public Resources Code Section 25529 were applicable to the Project as suggested by Staff, Section 25529's requirement that an area be established for public use is more than satisfied by Applicant's commitment to paving and re-routing Colosseum Road and to improving and re-routing various other hiking trails to afford continued public access to the site and the public lands to the west of the site.

POWER TOWER LIGHTING

TRANS-~~5~~4 The project owner shall ensure that each power tower is marked and lighted according to the recommendations included in the FAA aeronautical study performed for each tower. Additionally, the project owner shall submit FAA Form 7460-2 Part II, Notice of Actual Construction or Alteration, to the FAA within 5 days of completion of construction of the tower to its greatest height. The project owner shall provide evidence of compliance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting by submitting a copy of Form 7460-2 to BLM's Authorized Officer and the CPM for review and approval upon completion of construction or each power tower.

Verification: Within 5 days of completion of construction of each of the seven power towers, the project owner shall submit the above referenced evidence to BLM's Authorized Officer and the CPM for review and approval.

F. The Committee Should Reject Staff's Post-PMPD Suggested Changes Finding New Significant Impacts

Surprisingly, Staff's Comments on the PMPD, Set 1, dated August 27, 2010, can be read as recommending that the Committee find a new significant impact. Specifically, in response to a public comment (not testimony or other evidence in the hearing record) Staff apparently invites the Committee to find a new significant impact associated with the FAA-required aircraft safety lighting on the three solar receiver towers. (Staff PMPD Comments, Set 1, p. 75.)

Since the Staff's recommendation is based on public comments not offered during the hearings, not sponsored by any witness subject to cross-examination, and not part of the hearing record, it should be given no weight. Staff proposed new finding of a significant effect here (and any other similar recommendations that may or may not be within Staff's filings) should be rejected.[5]

CONCLUSIONS

We thank the Committee for its continuing hard work. It is imperative that the Committee hold the September 15, 2001 Business Meeting date for approval of the Ivanpah Solar Electric Generating System. Given the need to mobilize biologists to move desert tortoise

[5] Further, if these newly recommended findings of significant impact are adopted, the Commission must make the required findings to Override such impacts.

within specified fall time periods, the need to conduct significant site work prior to desert tortoise relocation, and the requirement to commence construction 2010, the window of opportunity is threatening to close with any more delays.

Dated: September 2, 2010

ELLISON, SCHNEIDER & HARRIS L.L.P.

By _____

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Attorneys for Ivanpah Solar Electric Generating System

ATTACHMENT 1
APPLICANT'S PROPOSED CONDITIONS OF CERTIFICATION
BIO- 17 & BIO-18

Applicant's Proposed BIO-17

Desert Tortoise Compensatory Mitigation

BIO-17 To fully mitigate for habitat loss and potential take of desert tortoise, the project owner shall provide compensatory mitigation at a 3:1 ratio for impacts to 3,582 acres, or the area disturbed by the final project footprint. At least two thirds of the 3:1 mitigation requirement shall be achieved by acquisition, in fee title or in easement, of no less than 7,164 acres of land suitable for desert tortoise.

The project owner shall acquire, or provide funding for, the acquisition, initial habitat improvements and long-term management of these Energy Commission Compensation Mitigation Lands. The remaining one third of the 3:1 compensatory mitigation requirement, to satisfy BLM's mitigation requirements and the balance of the Energy Commission's mitigation requirements, shall be developed by the BLM in accordance with BLM's responsibilities as the federal land manager. The BLM has determined that the compensatory mitigation for the project shall include 50 miles of desert tortoise fencing in the Northeastern Mojave Recovery Unit and the habitat restoration of at least 50 routes within the Desert Wildlife Management Area.

The project owner may later agree to voluntarily participate in the in-lieu fee program underdevelopment pursuant to the requirements of SB x8 34 (Chapter 9, Stats. 2010); provided, however, that the CPM will approve the project's owner's proposed voluntary participation by determining that such voluntary participation satisfies the substantive requirements of this Condition.

Verification:

Project Owner Acquired Lands

1. If the project owner elects to acquire 7,164 acres of land suitable for desert tortoise, then fifteen days prior to commencement of construction, the project owner shall transmit to CPM and the BLM's Authorized Officer a statement, signed by the project manager, attesting that the project owner intends to acquire 7,164 acres of land suitable for desert tortoise and describing the project's owner's plans for acquiring such lands.

   a. Security, as defined below, shall be provided for Project Owner Acquired Lands as described in Section 4 below.

b. The transfer of title of such acquired lands shall be effectuated as described below in Section 5, titled "Land Title Transfer for Acquired Lands."

Third-Party Acquired Lands

2. Responsibility for Acquisition of Lands: The responsibility for acquisition of compensation lands may be delegated to a third party, such as a non-governmental organization supportive of Mojave Desert habitat conservation. Such delegation shall be subject to approval in writing by the CPM, in consultation with BLM, CDFG and USFWS, prior to land acquisition, enhancement or management activities. If habitat disturbance exceeds that described in this condition, the project owner shall be responsible for funding acquisition, habitat improvements and long-term management of additional compensation lands or additional funds required to compensate for any additional habitat disturbances. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. Water and mineral rights shall be included as part of the land acquisition. Agreements to delegate land acquisition to CDFG or an approved third party and to manage compensation lands shall be implemented within 18 months of the Energy Commission's decision.

   a. Security, as defined below, shall be provided for Third Party Acquired Lands as described in Section 4 below.

   b. The transfer of title of such acquired lands shall be effectuated as described below in Section 5, titled "Land Title Transfer for Acquired Lands."

Selection Criteria for Compensation Lands

3. Regardless of whether the compensation lands selected for acquisition are Project Owner Acquired Lands or Third-Party Acquired Lands, such lands shall to the extent feasible :

   a. Be as close to the project site as possible;

   b. Provide good quality habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed;

   c. Be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;

   d. Be connected to lands currently occupied by desert tortoise, ideally with populations that are stable, recovering, or likely to recover;

e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;

f. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration, and

g. not contain hazardous wastes.

h. Review and Approval of Compensation Lands Prior to Acquisition. The project owner shall submit a formal acquisition proposal to the CPM, CDFG, USFWS and BLM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for desert tortoise in relation to the criteria listed above. Approval from the CPM, in consultation with BLM, CDFG and the USFWS, shall be required for acquisition of all parcels comprising the 7,164 acres.

Security

4. Energy Commission Compensation Land Mitigation Security: The project owner shall provide financial assurances to the CPM with copies of the document(s) to BLM, CDFG and the USFWS, to guarantee that an adequate level of funding is available to implement the Energy Commission Compensation Land Mitigation requirements described in this condition (the "Security"). The Security shall be used solely for implementation of the measures associated with the project. Alternatively, financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of financial instrument. This Security amount was calculated as follows and may be revised upon completion of a Property Analysis Record (PAR) or PAR-like analysis of the proposed compensation lands:

a. land acquisition costs for compensation lands, calculated at $910/acre x 3,582 acres x 2:1 = $6,519,240;

b. costs of initial habitat improvements to compensation lands, calculated at $250/acre x 3,582 acres x 2:1 = $1,791,000; and

c. Costs of installing 50 miles of desert tortoise fencing in the Northeastern Mojave Recovery Unit and the habitat restoration of at least 50 routes within the Desert Wildlife Management Area, for a total of $ 3,381,000, which includes:

i. 50 miles of fence x $6.50 per linear foot;

ii. 50 miles of Desert Tortoise Monitoring= $432,000;

iii. 50 miles of OHV trail rehabilitation and reclamation, calculated at 3,000 SF per trail x $2.50 per SF= $375,000;

iv. 50 miles of OHV desert tortoise monitoring= $108,000;

v. Allowance for permitting activities= $500,000;

vi. Allowance for Project Management= $250,000.

d. **Total Security** = $11,691,240.

e. Project Owner Acquired Lands: Security shall be paid as follows:

i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.

ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall provide either: (1) the final installment of Security in the amount of sixty eight percent (68% of the Total Security), or (2) provide information that demonstrates to the CPM and the BLM's Authorized Officer that 7,164 acres of land suitable for desert tortoise has been identified and secured through a legally binding option agreement or other legal instrument.

iii. Upon confirmation by the CPM and the BLM's Authorized Officer that 7,164 acres of land suitable for desert tortoise has been identified and secured through a legally binding option agreement or other legal instrument, the project owner shall be entitled to either a refund of monies paid pursuant to subsections (i) and (ii) above, or any funds paid to date may be credited against the project owner's Long-Term Management and Maintenance fees to be paid pursuant to Section 6 below.

f. Third Party Acquired Lands: Security shall be paid as follows:

i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.

ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall provide the final installment of Security in the amount of sixty eight percent (68% of the Total Security).

Land Title Transfer for Acquired Lands

5. Compensation Lands Acquisition Conditions: Regardless of whether the project owner elects to acquire 7,164 acres of land suitable for desert tortoise or allows a third-party to acquire such lands, the project owner shall comply with the following conditions relating to acquisition.

   a. Preliminary Report: The project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary documents for the proposed 7,164 acres. All documents conveying or conserving compensation lands and all conditions of title/easement are subject to a field review and approval by the CPM, in consultation with BLM, CDFG and the USFWS, California Department of General Services and, if applicable, the Fish and Game Commission and/or the Wildlife Conservation Board.

   b. Title/Conveyance: The project owner shall transfer fee title or a conservation easement to the 7,164 acres of compensation lands to CDFG under terms approved by CPM. Alternatively, a non-profit organization qualified to manage compensation lands (pursuant to California Government Code section 65965) and approved by the CPM in consultation with CDFG may hold fee title or a conservation easement over the habitat mitigation lands. If the approved non-profit organization holds title, a conservation easement shall be recorded in favor of CDFG in a form approved by CPM. If the approved non-profit holds a conservation easement, CDFG shall be named a third party beneficiary. If a Security is provided, the project owner or an approved third party shall complete the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities.

Long-term Management and Maintenance

6. Initial Habitat Improvement Fund: The project owner shall fund the initial protection and habitat improvement of the 7,164 acres. Alternatively, a non-profit organization may hold the habitat improvement funds if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of the CPM in consultation with CDFG. If CDFG takes fee title to the compensation lands, the habitat improvement fund must go to CDFG.

a. Long-term Management and Maintenance Fund. Prior to ground-disturbing project activities, the project owner shall provide to CDFG a non-wasting capital long-term management and maintenance fee in the amount determined through the Property Analysis Record (PAR) or PAR-like analysis that will be conducted for the 7,164 acres acquired and the fencing and habitat restoration as required by the BLM. The project owner's financial responsibility for the actual cost of mitigation shall not increase by more than 25% of the total Security Amount ($11,691,240). Alternatively, a non-profit organization may hold the long-term management and maintenance fees if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of CDFG and the CPM. If CDFG takes fee title to the compensation lands, the long-term management and maintenance fee must go to CDFG, where it will be held in the special deposit fund established pursuant to California Government Code section 16370. If the special deposit fund is not used to manage the long-term management and maintenance fee, the California Wildlife Foundation or similarly approved entity identified by CDFG shall manage the long-term management and maintenance fee for CDFG and with CDFG supervision.

b. Interest, Principal, and Pooling of Funds. The project owner, CDFG and the CPM shall ensure that an agreement is in place with the long-term management and maintenance fee holder/manager to ensure the following conditions:

   i. Interest. Interest generated from the initial capital long-term management and maintenance fee shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action approved by CDFG designed to protect or improve the habitat values of the compensation lands.

   ii. Withdrawal of Principal. The long-term management and maintenance fee principal shall not be drawn upon unless such withdrawal is deemed necessary by the CDFG or the approved third-party long-term management and maintenance fee manager to ensure the continued viability of the species on the 7,164 acres. If CDFG takes fee title to the compensation lands, monies received by CDFG pursuant to this provision shall be deposited in a special deposit fund established pursuant to Government Code section 16370. If the special deposit fund is not used to manage the long-term management and maintenance fee, the California Wildlife Foundation or similarly approved entity identified by CDFG will

manage the long-term management and maintenance fee for CDFG with CDFG supervision.

iii. Pooling Long-term Management and Maintenance Fee Funds. CDFG, or a CPM and CDFG approved non-profit organization qualified to hold long-term management and maintenance fees pursuant to California Government Code section 65965, may pool the long-term management and maintenance fee with other long-term management and maintenance fees for the operation, management, and protection of the 7,164 acres for local populations of desert tortoise. However, for reporting purposes, the long-term management and maintenance fee fund must be tracked and reported individually to the CDFG and CPM.

iv. Reimbursement Fund. The project owner shall provide reimbursement to CDFG or an approved third party for reasonable expenses incurred during title, easement, and documentation review; expenses incurred from other state or state approved federal agency reviews; and overhead related to providing compensation lands.

7. **Post-Construction Reporting Requirements:** Within 90 days after completion of project construction, the project owner shall provide to the CPM and CDFG an analysis with the final accounting of the amount of habitat disturbed during project construction. If habitat disturbance exceeds 3,582 acres, the project owner shall provide a compensation plan to the CMP for review and approval, in consultation with BLM, CDFG and the USFWS. The additional compensation plan shall be submitted no later than 90 days from the CPM's receipt of the final accounting, and shall include a description of additional funds required or lands that will be acquired to compensate for the unanticipated habitat disturbances, and a schedule for that acquisition or funding inclusive of all associated long-term management and maintenance fee and enhancement costs. The project owner's financial responsibility for the actual cost of mitigation shall not increase by more than 25 percent of the total Security Amount ($11,691,240).

8. **SBx8 34 Programs Under Development**. The project owner may later seek approval to participate in the in-lieu fee and other optional, voluntary programs under development pursuant to the requirements of SB x8 34 (Chapter 9, Stats. 2010). The project owner may submit a request to participate in the optional, voluntary SBx8 34 in-lieu fee and other programs developed to the CPM for review and approval and to BLM, CDFG, and USWFS for review and comment. The CPM shall approve the project owner's request if the CPM determines that the request will satisfy the substantive requirements of this Condition.

Applicant's Proposed BIO-18

Special-Status Plant Impact Avoidance and Minimization

BIO-18 The project owner shall implement the following measures to avoid and minimize impacts to special-status plant species.

1. On-Site Plant Avoidance/Minimization Areas: To the extent feasible, the project owner shall avoid and minimize disturbance to all special-status plant species within the project site. Impact avoidance (such as protection from project-related impacts through removal of acreage from the project footprint) and other avoidance/minimization efforts shall occur in all feasible locations. Impact avoidance/minimization shall focus on areas that support the highest density and diversity of special-status plant species and shall remove, at a minimum, the three areas totaling 476 acres and labeled "Rare Plant Mitigation Area" in **Project Description Figure 13** from the project footprint. The natural gas pipeline shall be aligned and narrowed to avoid special-status plant occurrences north of Ivanpah 3 as depicted in **Project Description Figure 13**. Impact avoidance and minimization shall also be conducted throughout the site. Impact avoidance and minimization within the solar field shall consist of protecting small perimeters ("halos") around all Mojave milkweed and Rusby's desert-mallow plants as determined feasible. Rare plant avoidance and minimization measures are described in the Applicant's January 2010 Draft Rare Plant Avoidance and Protection (Exhibit 81) and the Applicant's February 2010 Biological Mitigation Proposal ("Mitigated Ivanpah 3") (Exhibit 88).

2. Protection Goals: The project owner shall implement all feasible measures to protect or salvage and transplant 75 percent of the individuals of the two long-lived perennials, desert pincushion and Parish's club-cholla. All feasible measures will be implemented to protect species that are subject to seasonal variation, Mojave milkweed, Rusby's desert-mallow, and nine-awned pappus grass. More detail on protection goals for these special-status plant species is included in the Applicant's 2010 Draft Rare Plant Avoidance and Protection Plan (Exhibit 81) and the Applicant's February 2010 Biological Mitigation Proposal ("Mitigated Ivanpah 3") (Exhibit 88). Each year during construction, monitoring the percent protection achieved shall be conducted as described in the Rare Plant Protection and Avoidance Plan. Baseline and post-construction monitoring shall be based on surveys conducted by a qualified botanist.

3. Identify and Establish Special-Status Plant Protection Areas: The project owner shall identify Special-Status Plant Protection Areas for exclusion from the project footprint and avoidance of project-related impacts to facilitate achieving protection goals. The Rare Plant Protection Areas shall

encompass at a minimum the three areas totaling 476 acres and labeled "Rare Plant Mitigation Area" in **Project Description Figure 13**. The locations of the Special-Status Plant Protection Areas shall be clearly depicted on all final maps and project drawings and descriptions for exclusion of all project activities.

4. Protection of Adjacent Occurrences: The project owner shall identify special-status plants occurrences within 250 feet of the project fence line. A qualified botanist shall delineate the boundaries of these special-status plant occurrences prior to the initiation of ground disturbing activities. These flagged special-status plant occurrences shall be designated as Environmentally Sensitive Areas on plans and specifications, and shall be protected from accidental impacts during construction (e.g., vehicle traffic, temporary placement of soils or vegetation) and from the indirect impacts of project operation (e.g., herbicide spraying, changes in upstream hydrology, etc).

5. Develop and Implement a Special-Status Plant Protection and Monitoring Plan: The project owner shall develop and implement a Special-Status Plant Protection and Monitoring Plan for special-status plants occurring within the Special-Status Plant Protection Areas and on-site areas designated for impact minimization. The goal of the Special-Status Plant Protection and Monitoring Plan shall be to maintain the special-status plant species as healthy, reproductive populations that can be sustained in perpetuity. At a minimum, the Special-Status Plant Protection and Monitoring Plan shall:

   - establish baseline conditions and numbers of the plant occurrences in all protected areas (i.e., those to be excluded from the footprint and on-site areas to be protected) and success standards for protection of special-status plant occurrences;
   - provide information about microhabitat preferences and fecundity, essential pollinators, reproductive biology, and propagation and culture requirements for each special-status species;
   - describe measures (e.g., fencing, signage) to avoid direct construction and operation impacts to special-status plants within all protected areas;
   - Describe measures to avoid or minimize indirect construction and operations impacts to special-status plants within protected areas (e.g., runoff from mirror-washing, use of soil stabilizers/tackifiers, alterations of hydrology from drainage diversions, erosion/sedimentation from disturbed soils upslope, herbicide drift, the spread of non-native plants, etc.);
   - provide a monitoring schedule and plan for assessing the numbers and condition of special-status plants; and

- Identify specific triggers for remedial action (e.g., numbers of plants dropping below a threshold.

6. Develop Special-Status Plant Remedial Action Plan: The project owner shall develop a detailed Special-Status Plant Remedial Action Plan to be implemented if special-status plants within the 476 acres of protected area and on-site minimization "halos" fail to meet success standards described in the Special-Status Plant Protection and Monitoring Plan. The Plant Remedial Action Plan shall include specifications for ex-situ/offsite conservation of seed and other propagules, and the seed bank and other symbionts contained in the topsoil where these plants occur. The remedial measures described in the Plant Remedial Action Plan shall not substitute for plant protection or other mitigation measures. The Special-Status Plant Remedial Action Plan shall include, at a minimum:

   - guidelines for seed collection (and/or other propagules) for each species;
   - specifications for collecting, storing, and preserving the upper layer of soil containing seed and important soil organisms;
   - detailed replacement planting or seeding program with biologically meaningful quantitative and qualitative success criteria (see Pavlik 1996), monitoring specifications, and triggers for remedial action; and
   - ecological specifications for suitable planting or seeding sites.

7. Seed Collection: The project owner shall develop and implement a Seed Collection Plan to collect and store seed for Mojave milkweed, Rusby's desert-mallow, and nine-awned pappus grass. Propagules from the Parish's club-cholla shall be obtained and collection of propagules from desert pincushion will be attempted; however, it has not been determined if this is possible for this species. The source of seeds and/or propagules shall be from plants proposed for removal within the project footprint if possible, but this would limit the number of seeds that could be collected. The project owner shall engage the services of a qualified contractor approved by the CPM to undertake seed and/or propagule collection and storage.

8. Gas Pipeline Revegetation and Monitoring: In the natural gas pipeline construction corridor where disturbed soils will be revegetated, the topsoil excavated shall be segregated, kept intact, and protected, under conditions shown to sustain seed bank viability. Revegetation measures are described in the Closure, Revegetation, and Rehabilitation Plan and addressed separately in BIO-14. Rare plant seed collection for Rusby's desert mallow and Mojave milkweed is not feasible on a large scale for several reasons: 1) the rarity of the plants in this area (for example, only four Rusby's desert mallow plants occur within the project footprint), 2) the

very low number of seeds produced by any individual plant, 3) plants do not appear every year, and seed may not be produced every year plants are present, as both germination and seed production are heavily dependent on the amount of rainfall, and 4) the need to maintain natural seed bank dynamics within the Rare Plant Protection Areas. If the amount and periodicity of seasonal rainfall is appropriate, seed from nine-awned pappus grass will be collected and added to the revegetation seed mixture proposed in the Closure, Revegetation, and Rehabilitation Plan. Monitoring methods, success criteria used to evaluate the success of revegetation, and remedial measures that will be implemented should revegetation be determined unsuccessful, are also described in the Closure, Revegetation, and Rehabilitation Plan.

Verification: No less than 30 days following the publication of the Energy Commission Decision the project owner shall submit maps and design drawings depicting the location of Special-Status Plant Protection Areas within and adjacent to the project site, and shall identify the species and numbers of plants within each of the Special-Status Plant Protection Areas.

No less than 60 days following submission of the maps and design drawings depicting the location of Special-Status Plant Protection Areas, the project owner shall submit draft versions of the Special-Status Plant Protection and Monitoring Plan and the Seed Collection Plan to the CPM and BLM's Authorized Agent for review and approval, and to the CDFG for review and comment. The final plans shall be incorporated into the BRMIMP.

Within 30 days of the start of construction, the project owner shall submit a copy of the contract with the CPM-approved seed contractor.

The project owner shall identify special-status plants occurrences within 250 feet of the project fence line. A qualified botanist shall delineate the boundaries of these special status plant occurrences at least 30 days prior to the initiation of ground disturbing activities.

The Designated Biologist shall maintain written and photographic records of the tasks described above, and summaries of these records shall be submitted along with the Monthly Compliance Reports to the CPM, BLM Authorized Agent, and CDFG. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report for a period not less than 10 years for the Special-Status Plant Protection and Monitoring Plan, and the Special-Status Plant Remedial Action Plan, including funding for the seed storage.

ATTACHMENT 2

LETTER FROM

KEVIN HUNTING, CHIEF DEPUTY DIRECTOR
CALIFORNIA DEPARTMENT OF FISH AND GAME

RE: ENERGY COMMISSION STAFF'S TRANSMITTAL OF UPDATED RENEWABLE ENERGY ACTION TEAM (REAT) DRAFT AGENCY GUIDANCE FOR MITIGATION COST ESTIMATES- IVANPAH SOLAR ELECTRIC GENERATING SYSTEM (07-AFC-5)

(SEPTEMBER 1, 2010)

State of California -The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
1416 9th Street, 12th Floor
Sacramento, CA 95814
916-653-7667
http://www.dfg.ca.gov

***ARNOLD SCHWARZENEGGER**, Governor*
***JOHN McCAMMAN**, Director*

September 1, 2010

To Commissioner Jeffrey Byron, Presiding Member
To Commissioner James D. Boyd, Associate Member
To John Kessler, Project Manager
California Energy Commission
1516 9th Street
Sacramento, CA 95814-5512

Re: Energy Commission Staff's Transmittal of Updated Renewable Energy Action Team (REAT) Draft Agency Guidance for Mitigation Cost Estimates—Ivanpah Solar Electric Generating System (07-AFC-5) (Received by CEC, 7/30/10)

Dear Sirs:

The Department of Fish and Game (Department) has been participating in the on-going review of the table of cost estimates for mitigation for projects opting to participate in the joint Renewable Energy Action Team (REAT) mitigation implementation program through the National Fish and Wildlife Foundation (NFWF). The document is a working draft that does not yet reflect the position of all of the REAT agencies with respect to biological mitigation implementation and lacks the context of representing only one of several available mitigation options. As such, it does not reflect the Department's approach to securing mitigation costs and includes costs that may not be relevant for the state to exact.

Since the Ivanpah project has been working closely with the Department on a series of actions that we believe would meet the California Endangered Species Act (CESA) full mitigation standard, it is apparent to us that they intend to handle biological mitigation independently and not use the NFWF approach for which the draft cost table is intended. We therefore recommend either removal of the table from any official decision-making document or clarify that it is a working draft REAT document and should not be relied upon for this specific project.

Thank you very much for your consideration of this letter.

Sincerely yours,

Kevin Hunting
Chief Deputy Director

cc: Michael Picker, Special Advisor, Governor Arnold Schwarzenegger
Melissa Jones, Executive Director, California Energy Commission
Robert Weisenmiller, Commissioner, California Energy Commission
Terry O'Brien, Deputy Director, Energy Commission Siting Division
Tom Pogachnik, Assistant State Director, Bureau of Land Management
Amedee Brickey, Renewable Energy Coordinator, U.S. Fish and Wildlife Service

ATTACHMENT 3
GENERAL COMMENTS

I. ENVIRONMENTAL ASSESSMENT

BIOLOGICAL RESOURCES

Page 2, section 2, para 1, sentence 2: "Vegetation on the site and in the immediate project area consists of primarily Mojave creosote bush scrub, with Mojave yucca – Nevada ephedra scrub, and Mojave wash scrub also represented."

> **Comment:** The Mojave yucca-Nevada ephedra scrub vegetation type does not exist within the Project area. As noted in the Project's Biological Assessment Section 3.1.2 (Ex. 311) "Two other vegetation types, Mojave Yucca – Nevada Tea Scrub and Mojave Wash Scrub also occur. The Mojave Yucca – Nevada Ephedra Scrub vegetation type is restricted to a small area of limestone pavement plain at the base of the limestone hills of the eastern extension of the Clark Mountain Range, in the north-central area of the one-mile buffer." The PMPD should be clarified to reflect that point. Applicant recommends the following clarification:
>
> > Vegetation on the site and in the immediate project area consists of primarily Mojave creosote bush scrub, with ~~Mojave yucca – Nevada ephedra scrub, and~~ Mojave wash scrub also represented.

Page 2, section 2, para 1, sentence 3: "Plant communities at the site are characterized by an unusually high diversity and density of native succulents and relatively low levels of noxious weeds."

> **Comment:** As shown in Exs. 30 and 46, the type of plant communities at the site are typical for the immediate area, as the Clark Mountains lie within a summer precipitation anomaly that leads to high succulent density and diversity. The measured density of barrel cacti is less than a tenth of the "high density" creosote bush-white bursage-barrel cactus community type (Ex. 34, Attachment DR23-1). Applicant recommends the following clarification:
>
> > Plant communities at the site are characterized by a~~n unusually~~ high diversity and density of native succulents and relatively low levels of noxious weeds.

Page 2, section 2, para 1, sentence 5: "The Clark Mountain Range occurs to the north and west of the project area, and the topography slopes gradually down to the east and southeast toward Ivanpah Dry Lake on the alluvial fans and bajada on the Clark Mountains' east and south flanks.

> **Comment:** As shown in Ex. 5, the topography of the Clark Mountain Range slopes gradually down to the east and southeast toward the Ivanpah Dry Lake on the alluvial

fans and bajada on the Clark Mountain's east flank only, not the south. Therefore, Applicant recommends the following clarification:

> The Clark Mountain Range occurs to the north and west of the project area, and the topography slopes gradually down to the east and southeast toward Ivanpah Dry Lake on the alluvial fans and bajada on the Clark Mountain's~~'~~ east ~~and south~~ flank~~s~~.

Page 2, section 2, para 2, sentence 5: "This density is unusual because it occurs on a bajada rather than on rocky slopes where high barrel cactus densities would be expected."

Comment: As shown in Ex. 47, the distribution of 1 to 2 cacti per acre is a rather sparse distribution, and in most cases is typical of the densities found on an alluvial fan at this elevation in this region. In fact, per Ex. 34, Attachment DR23-1, Dr. Todd Keeler-Wolf (CDFG Vegetation Ecologist) indicated that barrel cactus densities need to be in the order of 400 per hectare to meet the description of the creosote bush-white bursage-barrel cactus community type (approximately 12.8 times more dense than the levels observed at the Ivanpah Project site). Thus, the density of barrel cacti as well as other cactus species is not unusual. Therefore, Applicant recommends deleting this sentence.

Page 2, section 2, para 4: "…and Mojave yucca (Yucca shidigera)."

Comment: Clerical error. The correct spelling of the Latin name of Mojave yucca is *Yucca schidigera.*

Page 3, section 2, para 1: "…pima ratany (Krameria erecta), Nevada ephedra, Mojave Desert California buckwheat…"

Comment: Clerical error. Applicant recommends the following correction:

> …~~p~~Pima ratany (Krameria erecta), Nevada ephedra, ~~Mojave Desert~~ California buckwheat…

*Page 6, section 3: "However, quite a few were detected during the 2007/2008 surveys or otherwise known to occur at or near the site; they are indicated by **bold-face type**."*

Comment: The use of the term "quite a few" is unqualified, especially given the number of species noted in the Biological Resources Table 1, as compared to those actually found on the Project site, and does not justify the implication of plentitude suggested by the term. Applicant recommends that the term be deleted, and the sentence corrected as follows:

> ~~However, quite a~~ A few were detected during the 2007/2008 surveys or otherwise known to occur at or near the site; they are indicated by **bold-face type**.

Page 20, para 1: "Although the Mojave is the driest of the North American deserts, the east Mojave does receive a large percentage of its annual precipitation from summer "monsoon" rains. The relative abundance of cacti, many yuccas, agaves, and agave-like plants tend to be greater where warm-season rainfall is abundant. This is true of the ISEGS project area where cacti are extremely abundant."

Comment: As described in Ex. 30, Section 3.4.2, only parts of the eastern Mojave receive a large percentage of its annual precipitation from summer monsoon rains. And, as discussed above, the density of cacti in the project area is not great. Additionally, there is only one species of yucca in the Project site, and there are no agave present. (*See* Ex. 30, Section 3.5) Accordingly, Applicant recommends the following clarification:

> Although the Mojave is the driest of the North American deserts, a part of the eastern Mojave ~~does~~ receives a ~~large~~ percentage of its annual precipitation from summer "monsoon" rains. (Ex. 30, Section 3.4.2)The relative abundance of succulents (cacti and ~~many~~ yuccas) ~~agaves, and agave-like plants~~ tend to be greater where warm-season rainfall is abundant. This is true of the ISEGS project area where cacti are ~~extremely~~ relatively abundant.

Page 24, para 3: "Mirror wash water would similarly concentrate along the drip line below the heliostats, causing minor erosion of the soil at the drip line and promoting growth of weeds. (Ex. 300, p. 6.2-34.)"

Comment: This statement ignores the analysis performed to date, and not considered in the analysis in Exhibit 300. The evidence provided by Applicant showed that insufficient runoff would occur to support weed growth, and would be well below a threshold where erosion would result (*Also see* Ex. , Applicant's Closure, Revegetation, and Rehabilitation Plan, Chapter 1, pp. 1-7). Applicant recommends that the sentence be deleted.

Page 25, para 1: A substantial portion of the Ivanpah Valley documented occurrences of small-flowered androstephium, Mojave milkweed, desert pincushion, nine-awned pappus grass, Parish's club-cholla, and Rusby's desert-mallow would be directly, indirectly, and cumulatively impacted by the project."

Comment: As shown in Exhibit 91, the initial documentation of small-flowered androstephium on the Project site was the result of a misidentification. The plants initially identified as small-flowered androstephium are actually crowned muilla, which is a List 4.2 on the California Native Plant Society's Inventory of Rare and Endangered Plants. The small-flowered androstephium has not been identified or documented at the Project site. As the evidentiary record shows that small-flowered androstephium do not actually occur at the project site, the PMPD should be revised accordingly. Applicant recommends deleting all references to the small-flowered androstephium.

Page 37, Finding of Fact 2: "Approximately 2,000 ephemeral washes, which form part of the regional bajada, occur throughout the project area."

Comment: As shown by geomorphic studies of the Project area, the ephemeral drainages occurring in the Project area form braided patterns in which most channels are discontinuous and segmented. (Ex. 5, Data Response 40) Applicant recommends clarifying Finding of Fact 2 as follows:

> Approximately 2,000 ephemeral wash~~es~~ segments, which form part of the regional bajada, occur throughout the project area."

BIOLOGICAL RESOURCES , CONDITIONS OF CERTIFICATION

*Page 47, Condition of Certification **BIO-8**: Desert Tortoise Clearance Surveys and Fencing*

Comment: Applicant supports the PMPD's version of this condition.

*Page 53, Condition of Certification **BIO-11**: Impact Avoidance and Minimization Measures*

Comment: Applicant supports the PMPD's version of this condition.

*Page 57, Condition of Certification **BIO-12**: Raven Management Plan*

Comment: As stated in its August 26, 2010 letter to Hearing Officer Kramer regarding clerical errors in the PMPD language, Applicant supports adopting the revised language agreed to by Staff and Applicant as set forth in Staff's March 29th, 2010 filing entitled, *Energy Commission Staff's Compilation of Edits to Recommended Conditions of Certification- Ivanpah Solar Electric Generating System (07-AFC-05)*. In its post-PMPD filings, Staff seeks to impose a Raven Management Fee. This fee program is not mentioned in the record of this proceeding. If and when a final, regional plan is developed, the Ivanpah Solar Project, like every other project, would be subject to the then-created, legally-enforceable program. It is plain legal error for the Commission to add in such a fee program, absent the required underlying record. Staff's post-PMPD additions to **BIO-12** must be rejected.

*Page 59, Condition of Certification **BIO-14**: Closure, Revegetation, and Rehabilitation Plan*

Comment: Applicant recommends that the Commission adopt Applicant's revised **BIO-14**, as follows, to reflect the Applicant's July 2010 version of the Closure, Revegetation and Rehabilitation Plan, which was prepared in coordination with BLM's consultant Dr. Ted St. John and BLM's biologist Dr. Larry LaPré:

BIO-14 The project owner shall develop and implement a revised Closure, Revegetation and Rehabilitation Plan (Plan) in cooperation with BLM and Energy Commission staff, USFWS and CDFG to guide site restoration and closure activities, including methods

proposed for revegetation of disturbed areas immediately following construction and rehabilitation and revegetation upon closure of the facility. This plan must address preconstruction salvage and relocation of succulent vegetation from the site to either an onsite or nearby nursery facility for storage and propagation of material to reclaim disturbed areas. In the case of unexpected closure, the plan should assume restoration activities could possibly take place prior to the anticipated lifespan of the plant. The Plan ~~shall address all issues discussed in **Biological Resources Appendix A**: *Revisions to Draft Closure, Revegetation and Rehabilitation Plan*, and~~ shall include but is not limited to the following elements~~ in the revised plan~~:

1. Plan Purpose: The plan shall explicitly identify the objective of the revegetation plan to be re-creation of the types of habitats lost during construction and operation of the proposed solar energy facility. The final revegetation plan shall include introduction of mid- to late-successional species.

2. Standards/Monitoring: Performance standards for success thresholds, weed cover, performance monitoring methods and schedule, and maintenance monitoring ~~in~~ will be specified in the revised Plan~~ shall be conducted as described in **Biological Resources Appendix B**~~.

3. Baseline Surveys – Baseline vegetation surveys for planning restoration efforts ~~shall~~ have been ~~be~~ conducted as described in~~ **Biological Resources Appendix B**~~ **the July 2010 version of the Closure, Revegetation and Rehabilitation Plan.**

4. Vegetation Clearing: Clearing of vegetation shall be limited to areas for which final maps are provided to BLM before approval of the ROW. Clearing of vegetation will be permitted on roads, utility routes, heliostat maintenance pathways, building and parking areas, and temporary staging areas provided these are specifically documented on a georeferenced construction alignment drawing or aerial photo or shape file, showing the exact locations of soil disturbance. BLM will consider

5. Vegetation Mowing; ~~Vegetation mowing shall be limited to areas adjoining vehicle pathways used for heliostat installation to allow installation of the heliostat pylon and allow for tracking clearance under the heliostat.~~ Vegetation mowing may be repeated during the life of the facility to maintain appropriate clearance for heliostat tracking.

6. Succulent Salvage: The revised Plan shall include a table that shows proposed succulent salvage by species and the number of plants onsite proposed for salvage.~~, the lower threshold height for salvage, the number in each size class, and the fate of plants not salvaged. An inventory and map of proposed succulent transplants shall be provided as described in Appendix A. Information gained from succulent transplant experience gained in ISEGS 1 shall be applied to future salvage operations, as described in **Biological Resources Appendix B**.~~

7. Seed Handling: Seed collection, testing and application shall be conducted as described in ~~**Biological Resources Appendix B**~~the July 2010 version of the

Closure, Revegetation and Rehabilitation Plan, with collection areas within ~~10 miles of the project boundaries~~the Ivanpah Valley, and on similar terrain, soil, exposure, slope, and elevation to the project site.

8. Soil Preparation: Soil descriptions, compaction measurements, mulch application, and soil storage, ~~seed farming, mycorrhizal inoculation, and biological crust collection and storage~~ shall be conducted as described in the July 2010 version of the Closure, Revegetation and Rehabilitation Plan ~~**Biological Resources Appendix B.**~~ Soil stockpiles shall not be placed on areas that support special-status plant species or other sensitive biological resources.

9. Weed Management. Weed management activities ~~needed to control weeds resulting from mirror washing~~ shall be conducted as described in the July 2010 version of the Closure, Revegetation and Rehabilitation Plan ~~**Biological Resources Appendix B**~~.

~~10. Final Closure Plan. A Final Closure Plan, which addresses the final revegetation and rehabilitation activities upon closure and decommissioning of the project, shall be completed as part of the revised Plan. The Final Closure Plan shall include a cost estimate, adjusted for inflation, reflecting the costs of the revegetation, rehabilitation, and monitoring for the duration of time estimated to achieve the objective of re-creating plant communities impacted by the project.~~

Verification: ~~No more than 30 days from the Energy Commission Decision and BLM Record of Decision the project owner shall provide BLM's Authorized Officer and the CPM with a draft version of the revised Closure, Revegetation and Rehabilitation Plan.~~ At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide BLM's Authorized Officer and the CPM with the Closure, Revegetation and Rehabilitation Plan that has been reviewed and approved by BLM~~, USFWS, CDFG,~~ and the Energy Commission staff. All modifications to the approved Revegetation and Reclamation Plan must be made only after consultation with BLM's Authorized Officer~~,~~ and the CPM~~, USFWS and CDFG. The project owner shall notify BLM's Authorized Officer and the CPM and no less than 5 working days before implementing any BLM- and CPM-approved modifications to the Closure, Revegetation and Rehabilitation Plan~~.

Within 30 days after completion of project construction for each phase of development, the project owner shall provide to BLM's Authorized Officer and the CPM for review and approval, a written report identifying which items of the Closure, Revegetation and Rehabilitation Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.

At least one year prior to planned closure and decommissioning the project owner shall submit to the BLM-Authorized Officer and the CPM a final Closure Plan for review to determine if revisions are needed. The project owner shall incorporate all required revisions to the final Closure Plan and submit to the BLM-Authorized Officer and the CPM no less than 90 days prior

to the start of ground disturbing activities associated with closure and decommissioning activities.

*Page 62-63, Condition of Certification **BIO-16**: Burrowing Owl Impact Avoidance and Minimization Measures.*

Comment: CDFG only allows for "passive" relocation. Subsection 4 of the Condition should be revised as follows.

Burrowing Owl Impact Avoidance and Minimization Measures

BIO-16 The project owner shall implement the following measures for the burrowing owl: ***

4. ~~Actively~~Passively relocate all owls occupying burrows that will be temporarily or permanently impacted by the project and implement the following CDFG take avoidance measures:

a. Occupied burrows shall not be disturbed during the nesting season (February 1 – August 31) unless a qualified biologist can verify through non-invasive methods that egg laying/incubation has not begun or juveniles are foraging independently and able to fly;

b. A qualified biologist must passively relocate owls, confirm that owls have left burrows prior to ground-disturbing activities, and monitor the burrows. (Active relocation is not allowed by CDFG.) Once evacuation is confirmed, the biologist should hand excavate burrows and then fill burrows to prevent reoccupation; and ***

*Page 64, Condition of Certification **BIO-17**: Desert Tortoise Compensatory Mitigation*

Comment: Applicant recommends that the Commission adopt Applicant's revised **BIO-17**, as set forth in Attachment 1

*Page 69, Condition of Certification **BIO-18:** Special-Status Plant Impact Avoidance and Minimization*

Comment: Applicant recommends that the Commission adopt Applicant's revised **BIO-18**, as set forth in Attachment 1.

*Page 75, Condition of Certification **BIO-19**: Nelson's Bighorn sheep mitigation*

Comment: Applicant supports the PMPD's version of this condition.

*Page 76, Condition of Certification **BIO-20**: Streambed Impact Minimization and Compensation Measures*

Comment: As discussed above, Applicant recommends that the Commission adopt Applicant's proposed BIO-20 condition as set forth below:

Streambed Impact Minimization and Compensation Measures

BIO-20 The project owner shall implement the following measures to avoid, minimize and mitigate for impacts to ephemeral drainages:

Acquire Off-Site Desert Wash: The project owner shall acquire, in fee or in easement, a parcel or parcels of land that includes ephemeral washes with at least 175 acres of state jurisdictional waters. The terms and conditions of this acquisition or easement shall be as described in Condition of Certification **BIO-17** with the additional criteria that the desert wash mitigation lands: 1) include at least 175 acres of state jurisdictional waters; and 2) be characterized by similar soil permeability, hydrological and biological functions as the impacted drainages. The desert wash mitigation lands may be included with the desert tortoise mitigation lands ONLY if the above criteria are met.

Verification:

1. Security for Implementation of Mitigation: If the Desert Wash mitigation land is to be procured separately from the Desert Tortoise mitigation land, a security in the form of an irrevocable letter of credit, pledged savings account, or other financial instrument. This Security amount shall be calculated as follows, and may be revised upon completion of a Property Analysis Record (PAR) or PAR-like analysis of the proposed compensation lands:

   a. land acquisition costs for compensation lands, calculated at $910/acre x 175 acres x 1:1 = $159,250;
   b. costs of initial habitat improvements to compensation lands, calculated at $250/acre x 175 acres x 1:1 = $43,750;

   Total security = $203,000

   c. Project Owner Acquired Lands: Security shall be paid as follows:
      i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.
      ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall either (1) provide the final installment of Security in the amount of sixty eight percent (68%) of the Total Security or (2) provide information that demonstrates to the CPM and the BLM's Authorized Officer that 175 acres of suitable Desert Wash mitigation land has been identified and secured through a legally binding

option agreement or other legal instrument, whether as part of the Desert Tortoise mitigation land or separately.

iii. Upon confirmation by the CPM and the BLM's Authorized Officer that 175 acres of land suitable for Desert Wash mitigation land has been identified and secured through a legally binding option agreement or other legal instrument, whether as part of the Desert Tortoise mitigation land or separately, the project owner shall be entitled to either a refund of monies paid pursuant to subsections (i) and (ii) above.

d. Third Party Acquired Lands: Security shall be paid as follows:

i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.

ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall provide the final installment of Security in the amount of sixty eight percent (68% of the Total Security).

2. Land Title Transfer for Acquired Lands If the project owner elects to acquire 175 acres of land suitable as desert wash separately from compensation lands to be used for mitigation of desert tortoise, and regardless whether the project owner elects to or allows a third-party to acquire such lands, the project owner shall comply with the following conditions relating to acquisition of the Energy Commission Complementary Mitigation compensation lands after the CDFG and the CPM, in consultation with BLM and the USFWS, have approved the proposed compensation lands and received Security as applicable and as described above.

a. Preliminary Report: The project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary documents for the proposed 175 acres. All documents conveying or conserving compensation lands and all conditions of title/easement are subject to a field review and approval by CDFG and the CPM, in consultation with BLM, CDFG and the USFWS, California Department of General Services and, if applicable, the Fish and Game Commission and/or the Wildlife Conservation Board.

b. Title/Conveyance: The project owner shall transfer fee title or a conservation easement to the 175 acres of compensation lands to CDFG under terms approved by CDFGCPM. Alternatively, a non-profit organization qualified to manage compensation lands (pursuant to California Government Code section 65965) and approved by CDFG and the CPM in consultation with CDFG may hold fee title or a conservation easement over the habitat mitigation lands. If the approved non-

profit organization holds title, a conservation easement shall be recorded in favor of CDFG in a form approved by CDFGCPM. If the approved non-profit holds a conservation easement, CDFG shall be named a third party beneficiary. If a Security is provided, the project owner or an approved third party shall complete the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities.

3. Preparation of Management Plan: The project owner shall submit to Energy Commission CPM a draft Management Plan that reflects site-specific enhancement measures for the drainages on the acquired compensation lands. The objective of the Management Plan shall be to provide initial enhancement of the wildlife value of the drainages, and may include enhancement actions such as weed control, fencing to exclude livestock,. No later than 90 days after aquisition of the compensation lands the project owner shall submit a final Management Plan for review and approval to the CPM and CDFG.

4. Right of Access and Review for Compliance Monitoring: The CPM reserves the right to enter the project site or allow CDFG to enter the project site at any time to ensure compliance with these conditions. The project owner herein grants to the CPM and to CDFG employees and/or their representatives the right to enter the project site at any time, to ensure compliance with the terms and conditions and/or to determine the impacts of storm events, maintenance activities, or other actions that might affect the restoration and revegetation efforts. The CPM and CDFG may, at the CPM's discretion, review relevant documents maintained by the operator, interview the operator's employees and agents, inspect the work site consistent with project safety procedures, and take other actions to assess compliance with or effectiveness of mitigation measures.

5. Notification: The project owner shall notify the CPM and CDFG, in writing, at least five days prior to initiation of project activities in jurisdictional areas as noted and at least five days prior to completion of project activities in jurisdictional areas. The project owner shall notify the CPM and CDFG of any change of conditions to the project, the jurisdictional impacts, or the mitigation efforts, if the conditions at the site of a proposed project change in a manner which changes risk to biological resources that may be substantially adversely affected by the proposed project. The notifying report shall be provided to the CPM no later than seven days after the change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a project; the biological and physical characteristics of a project area; or the laws or regulations pertinent to the project as defined below. A copy of the notifying change of conditions report shall be included in the annual reports.

    a. Biological Conditions: a change in biological conditions includes, but is not limited to, the following: 1) the presence of biological resources within or adjacent to the project area, whether native or non-native, not previously known to occur in the area; or 2) the presence of biological resources within or adjacent to the project area, whether native or non-native, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.

b. Physical Conditions: a change in physical conditions includes, but is not limited to, the following: 1) a change in the morphology of a river, stream, or lake, such as the lowering of a bed or scouring of a bank, or changes in stream form and configuration caused by storm events; 2) the movement of a river or stream channel to a different location; 3) a reduction of or other change in vegetation on the bed, channel, or bank of a drainage, or 4) changes to the hydrologic regime such as fluctuations in the timing or volume of water flows in a river or stream.

c. Legal Conditions: a change in legal conditions includes, but is not limited to, a change in Regulations, Statutory Law, a Judicial or Court decision, or the listing of a species, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.

6. Code of Regulations: The project owner shall provide a copy of the Streambed Impact Minimization and Compensation Measures from the Energy Commission Decision to all contractors, subcontractors, and the applicant's project supervisors. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any CDFG personnel or personnel from another agency upon demand. The CPM reserves the right to issue a stop work order or allow CDFG to issue a stop work order after giving notice to the project owner, the CPM, if the CPM in consultation with CDFG, determines that the project owner has breached any of the terms or conditions or for other reasons, including but not limited to the following:

   a. The information provided by the applicant regarding streambed alteration is incomplete or inaccurate;

   b. New information becomes available that was not known to it in preparing the terms and conditions;

   c. The project or project activities as described in the Final Staff Assessment have changed; or

   d. The conditions affecting biological resources changed or the CPM, in consultation with CDFG, determines that project activities will result in a substantial adverse effect on the environment.

7. Best Management Practices: The project owner shall also comply with the following conditions:

   a. The project owner shall minimize road building, construction activities and vegetation clearing within ephemeral drainages to the extent feasible.

   b. The project owner shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter ephemeral drainages or be placed in locations that may be subjected to high storm flows.

c. The project owner shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws, and it shall be the responsibility of the project owner to ensure compliance.

d. Spoil sites shall not be located within drainages or locations that may be subjected to high storm flows, where spoil shall be washed back into a drainage.

e. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from project-related activities, shall be prevented from contaminating the soil and/or entering waters of the state. These materials, placed within or where they may enter a drainage or Ivanpah Dry Lake, by project owner or any party working under contract or with the permission of the project owner shall be removed immediately.

f. No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the state.

g. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any drainage.

h. No equipment maintenance shall occur within 150 feet of any ephemeral drainage where petroleum products or other pollutants from the equipment may enter these areas under any flow.

8. No fewer than 30 days prior to the start of work potentially affecting waters of the state, the project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that the above best management practices will be implemented and provide a discussion of work in waters of the state in Compliance Reports for the duration of the project.

*Staff's Proposed **BIO-21***

Comment: Applicant opposes the draft **BIO-21** condition proposed by Staff at the August 24, 2010 Committee Conference and Evidentiary Hearing. **BIO-21** is being imposed because "it felt good to do it" and to achieve "maximum consistency" with the BLM, even though there is no basis in the record to support the imposition of such a condition. As testified by Staff witness, Dr. Susan Sanders, Staff "didn't necessarily think" such a condition was "warranted in the beginning" because there was no information to support a finding of significant impacts. (8/30 RT, p. 140)

Page 81, BIOLOGICAL RESOURCES APPENDIX B

Comment: All points raised in this appendix have been discussed by Dr. Geoffrey Spaulding and Dr. St. John, and resolved, either as inapplicable to the project or addressed by the Closure, Revegetation, and Rehabilitation Plan of July 2010. The information presented in this appendix is out of date, and has been superseded by the Closure, Revegetation, and Rehabilitation Plan of July 2010. The Appendix should be deleted or replaced with the July 2010 Closure, Revegetation, and Rehabilitation Plan.

SOIL AND WATER RESOURCES

*Page 6, para 2, line 8: **"**If discharged to land, discharge of this water would be subject to the requirements of the State Water Resources Control Board's general permit number 2003-003-DWQ."*

Comment: This sentence should be modified to reflect the most recent developments as follows:

> If discharged to land, discharge of this water would be subject to the requirements of the State Water Resources Control Board~~'s general permit number 2003-003~~ DWQ Order No. 2003-0003-DWQ (Statewide General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality).

GEOLOGICAL AND PALEONTOLOGICAL RESOURCES

*Page 4, para 4: "Local subsidence in the form of sinkholes was observed at the site and along the northern edge of Ivanpah Dry Lake. While sinkholes can sometimes be attributed to groundwater withdrawal as well as other causes, the cause in this case is believed to be from dehydration of clays between the soil surface and the water table resulting in a major loss of volume and the collapse of overlying soils. The potential for such shrinkage to affect structural components must be mitigated through facility design protocols consistent with the CBC. Condition **GEO-1** as well as the conditions listed in the **Facility Design** section of this Decision will ensure compliance with CBC requirements. (Ex. 1, Appendix 5.4A; Ex. 300, pp. 6.15-10, 6.15-16.)"*

Comment: There are no sinkholes in the project vicinity, and none have been found on site. The giant desiccation polygons and clay-rich soils on the margin of Ivanpah Dry Lake, more than 2.5 miles to the east, have no bearing on the geology of the alluvial fan upon which the project is sited. The text should be revised as follows:

> Local subsidence in the form of sinkholes was observed ~~at the site and~~ along the northern edge of Ivanpah Dry Lake. While sinkholes can sometimes be attributed to groundwater withdrawal as well as other causes, the cause in this case is believed to be from dehydration of clays ~~between~~ beneath the playa ~~soil~~ surface ~~and the water table~~ resulting in a major loss of volume and the collapse of overlying soils. ~~The potential for such shrinkage to affect structural components must be mitigated through~~

~~facility design protocols consistent with the CBC. Condition **GEO-1** as well as the conditions listed in the **Facility Design** section of this Decision will ensure compliance with CBC requirements. (Ex. 1, Appendix 5.4A; Ex. 300, pp. 6.15-10, 6.15-16.)~~

Page 6, section 3, para 1: Quaternary alluvial deposits underlying the project site typically contain a wide variety of vertebrate fossils. Applicant's records search revealed that significant paleontological resources have been documented in nearby Paleozoic carbonate bedrock and could be encountered during construction of the Ivanpah 3 plant and linear facilities. However, the young to intermediate age alluvium that underlies the majority of the site, as well as Pre-Cambrian metamorphic rocks located just northeast of Ivanpah 2, are considered to be of low to negligible sensitivity for paleontological resources. (Ex. 1, § 5.8.4, Appendix 5.8; Ex. 300, p. 6.15-22.)

Comment: Alluvial deposits do not typically contain a wide variety of vertebrate fossils in fact, the opposite is true, as described in Ex. 1, Section 5.8.4.2.1. This fact has not been contested by the CEC Staff. In fact, the reference in the PMPD text (Ex. 300, p. 6-15.22 concurs with our edits. It states: "The young to intermediate age alluvium that underlies the majority of the site, as well as Pre-Cambrian metamorphic rocks located just northeast of Ivanpah 2, are considered to be of low to negligible sensitivity with respect to containing paleontological resources."

Fossil resources in the Paleozoic rocks were hitherto unknown, and not revealed by the records search but by the field survey (in Ex. 1, Section 5.8.). Applicant recommends clarifying this description as follows:

> Quaternary alluvial deposits underlying the project site typically ~~contain a wide variety of vertebrate~~ lack scientifically significant fossils. Applicant's ~~records search~~field survey revealed that significant paleontological resources ~~have been documented~~occur in nearby Paleozoic carbonate bedrock, ~~and could be~~ but are highly unlikely to be encountered during construction of the Ivanpah 3 plant and linear facilities. ~~However,~~ Therefore, the young to intermediate age alluvium that underlies the majority of the site, as well as Pre-Cambrian metamorphic rocks located just northeast of Ivanpah 2, are considered to be of low to negligible sensitivity for paleontological resources. (Ex. 1, § 5.8.4, Appendix 5.8; Ex. 300, p. 6.15-22.)

II. INTRODUCTION

Page 1, para 3: "Ivanpah 1 would be 920 acres, Ivanpah 2 would be 1,097 acres, and Ivanpah 3 would be 1,227 acres."

Comment: This description should be modified to reflect the most recent developments as follows:

Ivanpah 1 would be 914 ~~920~~ acres, Ivanpah 2 would be 1,097 acres, and Ivanpah 3 would be 1, 227 acres.

Page 2, para 5: "Raw ground water would be drawn from one of two wells, located on the northwest corner of Ivanpah 1, which would provide water to all three plants. Each well would have sufficient capacity to supply water for all three phases. Actual water use is not expected to exceed 100 acre feet per year for all three plants. Groundwater would go through a treatment system for use as boiler make-up water and to wash the heliostats. No wastewater would be generated by the system, except for a small stream that would be treated and used for landscape irrigation."

Comment: This description should be modified to reflect the most recent developments as follows:

Raw ground water would be drawn from one of two wells, located ~~on the northwest corner of Ivanpah 1~~ near the administration/warehouse building in the Construction Logistics Area (CLA), which would provide water to all three plants. Each well would have sufficient capacity to supply water for all three phases. Actual water use is not expected to exceed 100 acre feet per year for all three plants during commercial operations. Groundwater would go through a treatment system for use as boiler make-up water and to wash the heliostats. No wastewater would be generated by the system, ~~except for a small stream that would be treated and used for landscape irrigation~~.

Page 3, para 1: "The Applicant indicates that it would take 48 months to complete the project with construction expected to cost approximately $300 million, for Ivanpah 1, $280 million for Ivanpah 2, and $520 million for Ivanpah 3. Commercial operation would begin during the third quarter of 2010 and be completed during the fourth quarter 2013, if approved by the Energy Commission. The Applicant proposes to begin project construction during the fall of 2010.

Comment: This description should be modified to reflect the most recent developments as follows:

The Applicant indicates that it would take about 42~~8~~ months to complete the project with construction and engineering expected to cost approximately $~~300~~ 450 million, for ~~Ivanpah 1, $280 million for Ivanpah 2, and $520 million for Ivanpah 3~~ each of the three Ivanpah generating projects. Commercial operation would begin during the fourth quarter of ~~third quarter of~~ 2012~~0~~ or first quarter 2013 at Ivanpah 1, in 2013 for Ivanpah 2, and in 2014 at Ivanpah 3 ~~and be completed during the fourth quarter 2013,~~ if approved by the Energy Commission. The Applicant proposes to begin project construction during the fall of 2010.

III. PROJECT DESCRIPTION AND PURPOSE

Page 1, para 3: "Development and construction is expected to cost approximately $1,100 million. Construction could begin during the fourth quarter of 2010 and be completed during the fourth quarter 2013. The facility will be operated 7 days a week, 14 hours per day."

Comment: This description should be modified to reflect the most recent estimates as follows:

> Development and construction is expected to cost approximately $1.8~~1~~ billion ~~1,100 million~~. Construction could begin during the fourth quarter of 2010 and be completed by the first ~~during the fourth~~ quarter 2013 at Ivanpah 1. The facility will be operated 7 days a week, up to 14 hours per day.

Page 5, para 1: "Because the BLM expressed concern that the two original proposed well locations would interfere with monitoring and regulation of the Primm Valley Golf Club Colosseum wells, the applicant relocated the proposed wells 4,250 feet south of their original location to the northwest corner of Ivanpah 1.

Comment: This description should modified to reflect the most recent developments as follows:

> Because the BLM expressed concern that the two original proposed well locations would interfere with monitoring and regulation of the Primm Valley Golf Club Colosseum wells, the applicant relocated the proposed wells ~~4,250 feet south of their original location to the northwest corner of Ivanpah 1~~ further to the west to be near the administration/warehouse building.

IV. ENGINEERING ASSESSMENT

TRANSMISSION SYSTEM ENGINEERING

Page 8, Finding of Fact 6: "The evidence analyzes the potential environmental effects of the line removal and replacement and finds no effects except that special status plants may be harmed during the construction activities, resulting in an unmitigable significant impact."

Comment: Finding of Fact 6 should be deleted for two reasons. First, there is no evidence in the record to support the conclusion that special status plants even occur in the Eldorado-Ivanpah transmission segment removal/replacement area, let alone to support the conclusion that such plants would be harmed during construction activities. Second, without evidence to support a finding of a significant impact, it is unclear how the PMPD can then determine that such impacts are unmitigable.

Page 12, Condition TSE-5

Comment: The specifics of the Project's interconnection, as detailed in Sections A-G of the PMPD's version of TSE-5, should be moved from the Condition section to the Verification section of TSE-5 as proposed by Applicant in its Opening Brief.

V. PUBLIC HEALTH AND SAFETY

AIR QUALITY

Comment: With the exception of Applicant's recommended correction of clerical errors in Conditions of Certification AQ-SC5 and AQ-SC6, as described in Applicant's August 26, 2010 filing "Clerical Errors In PMPD Condition Language for the Ivanpah Solar Electric Generating System (07-AFC-5)," Applicant has no comments on the PMPD's Air Quality section.

WASTE MANAGEMENT

Page 2, section 2, para 2: ". . . Non-recyclable wastes will be collected and disposed of pursuant to applicable LORS."

Comment: Applicant recommends adding the following citation to the evidentiary record to support the statements in this section. Applicant recommends the addition of the following:

> . . . Non-recyclable wastes will be collected and disposed of pursuant to applicable LORS. (Ex. 1, §§ 5.14.4.1.1, 5.14.5, 5.14.2)

Page 3, para 3: ". . . Although spills might occur, proper hazardous material handling and good practices will keep spill wastes to a minimum."

Comment: Applicant recommends adding the following citation to the evidentiary record to support the statements in this section. Applicant recommends the addition of the following:

> . . . Although spills might occur, proper hazardous material handling and good practices will keep spill wastes to a minimum. (Ex. 1, §5.14.5)

Page 4, para 1: " . . . in accordance with LORS applicable to generators of hazardous waste."

Comment: Applicant recommends adding the following citation to the evidentiary record to support the statements in this section. Applicant recommends the addition of the following:

> . . . in accordance with LORS applicable to generators of hazardous waste. (Exs. 1, pp.5.14-2, 17; 300, pp. 6.13-9 to 6.13-10.)

Page 4, para 5: ". . . The evidence shows that there is sufficient capacity at these facilities to handle the project's construction and operation nonhazardous wastes."

Comment: Applicant recommends adding the following citation to the evidentiary record to support the statements in this section. Applicant recommends the addition of the following:

> . . . The evidence shows that there is sufficient capacity at these facilities to handle the project's construction and operation nonhazardous wastes. (Ex. 1, p. 5.14-10)

Page 5, para 1: ". . .Evidence indicates there is sufficient capacity at these facilities to handle the project's hazardous wastes during its operating lifetime."

Comment: Applicant recommends adding the following citation to the evidentiary record to support the statements in this section. Applicant recommends the addition of the following:

> . . .Evidence indicates there is sufficient capacity at these facilities to handle the project's hazardous wastes during its operating lifetime. (Exs. 1, p. 5.14-11 & 12; 300, p. 6.13-11.)

*Page 8, Condition **WASTE-3,** verification:*

Comment: Applicant recommends the addition of the following language to the verification to conform with the revised language agreed to by Staff and Applicant, as set forth in Staff's March 29, 2010 Compilation of Edits:

> **Verification**: The project owner shall submit the Construction Waste Management Plan to BLM's Authorized Officer, and the CPM for approval no less than 30 days prior to the initiation of construction activities at the site. BLM's Authorized Officer and the CPM shall approve or identify any material deficiencies in the Construction Waste Management Plan within 30 days following receipt of the Plan.

*Page 9, Condition **WASTE-6,** verification:*

Comment: Applicant recommends the addition of the following language to paragraph 1 of the verification to conform with the revised language agreed to by Staff and Applicant, as set forth in Staff's March 29, 2010 Compilation of Edits:

> **Verification**: The project owner shall submit the Operation Waste Management Plan to BLM's Authorized Officer, and the CPM for approval no less than 30 days prior to the start of project operation. BLM's Authorized Officer and the CPM shall approve or identify any material deficiencies in the Operation Waste Management Plan within 30 days following receipt of the Plan. The project owner shall submit any required revisions to BLM's Authorized Officer, and the CPM within 20 days of

notification from BLM's Authorized Officer. and the CPM that revisions are necessary.

*Page 10, Condition **WASTE-7,** verification, sentence 2:*

Comment: Applicant recommends the addition of the following language to paragraph 1 of the verification to conform with the revised language agreed to by Staff and Applicant, as set forth in Staff's March 29, 2010 Compilation of Edits:

> The documentation shall include, at a minimum, the following information: location of release; date and time of release; reason for release; volume released; amount of contaminated soil/material generated; how release was managed and material cleaned up; if the release was reported; to whom the release was reported; release corrective action and cleanup requirements ~~placed~~ imposed by regulating agencies; level of cleanup achieved and actions taken to prevent a similar release or spill; and disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release.

VI. LOCAL IMPACT ASSESSMENT

LAND USE

Page 2, para 1, line 1- "Local ordinances and policies applicable to the project include the San Bernardino County General Plan, and the San Bernardino County 2007 Development Code.

Pages 8-9- "Those policies are not applicable, however, where they conflict with allowed uses on Federal lands."

Comment: The Commission should clarify that the San Bernardino County General Plan and 2007 Development Code are not an applicable LORS.

By its express terms, the County General Plan is not a law that is applicable to the Project, regardless of whether the policies of the County conflict with allowed uses on federal land. As noted in the evidentiary record, the Ivanpah Solar Project is "located entirely on public land and would be under federal jurisdiction."[1] Lands controlled by the BLM are specifically considered "non-jurisdiction"[2] by the San Bernardino County General Plan, and are "outside the governing control of the County Board of Supervisors."[3] Additionally, the General Plan specifically states "County designated

[1] Ex. 300, p. 6.5-3.
[2] Ex. 1100,pp. I-12,13; also see the San Bernardino County General Plan Map, *available at* http://www.co.san-bernardino.ca.us/landuseservices/General%20Plan%20Update/Mapping/1-Land%20Use%20Zoning%20Districts%20Maps/CJDJA.pdf .
[3] Ex. 1100,pp. I-12,13; also see the San Bernardino County General Plan Map, *available at* http://www.co.san-bernardino.ca.us/landuseservices/General%20Plan%20Update/Mapping/1-Land%20Use%20Zoning%20Districts%20Maps/CJDJA.pdf .

Land Use Zoning Districts," and accordingly, all corresponding zoning and land use restrictions, "do not apply to Federal or State owned property."[4] Thus, because the Ivanpah Solar Project is located on federal land, the Project site is "non-jurisdiction," and the San Bernardino County General Plan, General Plan policies, and Development Code do not apply to the Ivanpah Solar Project.

Page 4, para 4: "The project site is in the general area addressed by the United States Fish and Wildlife Service (USFWS) Desert Tortoise Recovery Plan and Critical Habitat designation. The recovery plan describes a strategy for recovery and delisting of the desert tortoise."

Comment: The PMPD should clarify that the Project site is not within an area with critical habitat designation, and does not conflict with a Habitat or Conservation Plan.

The PMPD states that that the project site "is within the general area addressed by the DT Recovery Plan and Critical Habitat designation."[5] Applicant believes that the PMPD should be clarified to recognize that the Project itself "is not within designated critical habitat for any species,"[6] and that there are no other habitat conservation plans or natural community conservation plans applicable to the Project location.[7]

The suggested clarification is as follows:

> The project site is in the general area addressed by the United States Fish and Wildlife Service (USFWS) Desert Tortoise Recovery Plan and Critical Habitat designation. However, the project site itself is not within designated critical habitat for any species, and there are no other applicable habitat conservation plans or natural community conservation plans.

TRAFFIC AND TRANSPORTATION

The PMPD finds that the construction traffic impacts of the ISEGS, in combination with the construction traffic impacts of other projects in the region during the same period, will create a cumulatively significant effect on Northbound I-15 traffic on Friday afternoons. The PMPD states that, "looking regionally, projects that will potentially be under construction at the same time as the ISEGS, are the Southern Nevada Supplemental Airport, the Desert Xpress Train, the I-15 Mountain Pass Truck Lane, the First Solar "Stateline" Photovoltaic Project, and the Caltrans Joint Point of Entry....It is highly likely that some, if not all of these projects would result in additional vehicular trips on northbound I-15 on Friday afternoons."

However, there is no evidence in this record that any of the alleged cumulative projects will be under construction during the ISEGS construction period. The I-15 Mountain Pass Truck

[4] Ex. 1100, pp. I-12,13,14; also see the San Bernardino County General Plan Map, *available at* http://www.co.san-bernardino.ca.us/landuseservices/General%20Plan%20Update/Mapping/1-Land%20Use%20Zoning%20Districts%20Maps/CJDJA.pdf .
[5] PMPD, Land Use p. 4.
[6] Ex. 300, pp. 6.5-11, 6.2-29.
[7] Ex. 300, p. 6.5-11.

Lane was completed in 2010, and the Desert Xpress and the Southern Nevada Supplemental Airport will not begin construction for many years. The evidence in this record shows that the construction traffic impacts from the Ivanpah Solar Project are extremely minor and extremely limited in time and scope of occurrence. During peak construction, a period of approximately three months,[8] the Ivanpah Solar Project will add an estimated 174 vehicles to a flow of traffic of more than 30,000 vehicles per day. This impact will occur only for northbound traffic on I-15, only during a limited period of peak construction (approximately three months), only one day a week (Friday) and for only a few hours (late afternoon) of that day.[9] The temporary additions of 174 cars on certain Fridays will not change the Level of Service (LOS) rating during this time.

Given the temporary duration of the construction impacts, the relatively minor nature of the impacts and the absence of any credible evidence that the ISEGS construction impacts will overlap with construction of the other listed projects, the PMPD errs by finding the construction impacts on traffic to be cumulatively significant, and should be corrected in accordance with the evidence in this proceeding.

Page 16, Condition TRANS-4

Comment: The entire condition (TRANS-4) should be deleted.

The Applicant and Staff recommended deletion of TRANS-4. Instead, TRANS-5, an uncontroverted condition was mistakenly deleted. TRANS-4 (Verification Of Power Tower Receiver Luminance And Monitoring) should be deleted. TRANS-5 (Power Tower Lighting) should be re-inserted

The uncontroverted evidence from the record shows that the light from the power tower receivers will not pose a safety hazard to pilots, motorists or hikers. Additionally, the number of towers at the project will be three, not seven. Thus, the Applicant respectfully submits that such a Plan is entirely unnecessary, and not supported by the record.

It is undisputed that the intensity of the light at the base of the tower is well below established safety levels and that any pilots, motorists or hikers will be at substantially greater and even safer distances. In the absence of any evidence of any discernible harm and without any specific standard or regulation regarding allowable light levels, a periodic "evaluation" would serve no productive purpose. The Commission should not require studies simply for the sake of doing a study.

[8] RT 12/14/09, 93.
[9] Ex. 65, p. 103.

SOCIOECONOMICS

Page 2, section 1, para 4:

Comment: Applicant recommends adding the following citation to the evidentiary record to support the statements in this section. Applicant recommends the addition of the following:

> . . . The previous analysis assumed that most of the workers would commute from the Las Vegas area. (Ex. 1 § 5.10.4.3.1, 12/14/09 RT 114:15-25, 115:1-18.)

Page 5, Socioeconomics and Environmental Justice Table 7:

Comment: The PMPD states that Table 7 was replicated from a table produced by Staff. However, the numbers used by Staff in the FSA were incorrect, and these errors were carried over to the PMPD. Applicant recommends correcting the table as follows to match the estimates in the evidentiary record (Ex. 1, §§ 5.10.4.3.6 and 5.10.4.4.6):

Estimated Secondary Employment	
Construction	~~528~~ 1,151 jobs
Operation	~~12~~ 30 jobs
Estimated Secondary Income	
Construction	~~$20.5~~ $44.8 million
Operation	~~$470,150~~ $1.1 million

Page 9, Finding of Fact 15: "As a result of the updated, smaller footprint for ISEGS Phase III, the number of employees and the potential economic benefits would be reduced proportionately; however, since there are no project-related socioeconomic impacts, the smaller footprint does not change that finding."

Comment: Even though Applicant's Mitigation Proposal reduced the footprint for ISEGS Phase III, Applicant did not reduce the labor force estimates. Applicant recommends that Finding of Fact 15 be either deleted, or revised as follows:

> ~~As a result of~~ Despite the updated, smaller footprint for ISEGS Phase III, the ~~number of employees and the potential economic benefits would be~~ labor force estimates have not been reduced proportionately. ~~; however, s~~Since there are no project-related socioeconomic impacts, the smaller footprint does not change that finding.

Page 9, Conclusion of Law 1:

Comment: The Socioeconomics section of the PMPD does not have an Appendix A; thus, Applicant recommends deleting the reference to Appendix A in Conclusion of Law 1.

NOISE AND VIBRATION

Page 2, para 4: "Moreover, with the exception of 0.5 mile of gas pipeline and 570 feet of water line, all linear facilities will be within the project site and construction noise impacts will be similar to those for the power plant."

> **Comment:** This description should be updated to conform with Applicant's Biological Mitigation Proposal (Ex. 88) as follows:
>
> > Moreover, with the exception of ~~0.5~~ 1.5 mile of gas pipeline ~~and 570 feet of water line~~ and the paving of 1.6 miles of Colosseum Road, all linear facilities will be within the project site and construction noise impacts will be similar to those for the power plant.

*Page 3, para 1: "The first two Conditions establish a notification and complaint process to resolve issues arising from any excessive construction noise; Condition **NOISE-6** limits construction to the hours between 7:00 a.m. and 7:00 p.m."*

> **Comment:** The Applicant recommends that the text be clarified to explain that only noisy construction is limited to the hours between 7:00 a.m. and 7:00 p.m. Applicant recommends the following clarification:
>
> > The first two Conditions establish a notification and complaint process to resolve issues arising from any excessive construction noise; Condition **NOISE-6** limits noisy construction to the hours between 7:00 a.m. and 7:00 p.m.

Page 4, Finding of Fact 3: "Construction noise levels are temporary and transitory in nature and will be mitigated to the extent feasible by sound reduction devices, limiting construction to day-time hours, and providing a notice and complaint process to the public."

> **Comment:** As explained above, Applicant recommends that Noise and Vibration Finding of Fact 3 be revised to clarify that noisy construction will be limited during day-time hours, not all construction activities. Applicant recommends the following clarification to Finding of Fact 3:
>
> > Construction noise levels are temporary and transitory in nature and will be mitigated to the extent feasible by sound reduction devices, limiting noisy construction activities to day-time hours, and providing a notice and complaint process to the public.

*Page 8, Condition **NOISE-6,** para 1**:** "Heavy equipment operation and noisy construction work that causes off-site annoyance as evidenced by the filing of a legitimate noise complaint shall be restricted to the 7:00 a.m. to 7:00 p.m. time period."*

Comment: Applicant recommends that this condition be clarified as follows:

> ~~Heavy equipment operation and n~~Noisy construction work or heavy equipment operation that causes off-site annoyance as evidenced by the filing of a legitimate noise complaint shall be restricted to the 7:00 a.m. to 7:00 p.m. time period.

VISUAL RESOURCES

Page 20, para 5: "This strong level of overall project visual change would not be compatible with the moderate overall visual sensitivity of the Ivanpah Valley, nor with the high overall visual sensitivity of the Stateline Wilderness Area in which this viewpoint is located.

Comment: This description of KOP 9 should be modified to clarify that the KOP 9 is not actually within the Stateline Wilderness Area, as illustrated in Exhibit 69.

VII. OVERRIDE FINDINGS

Pages 2-3

The PMPD correctly identifies multiple benefits of the Ivanpah Solar Project. The Applicant respectfully requests that the Commission include the other important benefits of the Project that are a part of the evidentiary record:

1. The Ivanpah Solar Project provides reliability benefits by load following and by being available on peak. The Project's generation is "peak coincident," delivering power when large air conditioners and other loads require additional generation resources.

2. The Ivanpah Solar Project will avoid more than 13 million tons of CO_2 emissions over the lifecycle of the Project, as well as 85 percent of the air emissions from an equally-sized natural gas plant.

3. Electricity produced by the Ivanpah Solar Project will displace fossil-fuel derived power and reduce the need to operate peaking power plants.

4. The plants will employ dry-cooling, which will reduce water usage by 90 percent, allowing the Ivanpah Solar Project to use approximately 30 times less water than competing technologies using wet cooling.

5. The Low Impact Design uses BrightSource's proprietary hanging heliostats, which minimize the need for grading and concrete pads required for competing technologies.

6. The BrightSource Energy Luz Power Tower 550 (LPT 550) technology has been proven at the demonstration facility in Israel. This technology is reliably producing the world's

highest temperature steam for solar energy, and has been validated by an independent engineering firm.

7. The Ivanpah Solar Project will provide substantial economic benefits during both construction and operation of the Project.

Pages 3-4, Findings of Fact

Comment: The Applicant respectfully requests that the facts identified above be incorporated into the Commission's Findings of Fact as Findings of Fact 6 through 12, respectively.

VIII. RECREATION

The Applicant supports the deletion of Staff's proposed REC-1 condition. The record clearly shows that the Project will not cause significant impacts to recreation, as the Project will not disrupt recreation opportunities, and the project's indirect impacts by itself would not substantially diminish the quality of outdoor recreation experiences.[10] Furthermore, even if Public Resources Code Section 25529 were applicable to the Project as suggested by Staff, Section 25529's requirement that an area be established for public use is more than satisfied by Applicant's commitment to paving and re-routing Colosseum Road and to improving and re-routing various other hiking trails to afford continued public access to the site and the public lands to the west of the site.[11]

Nevertheless, Applicant has committed to build a Solar / Ecological Interpretive Center to be developed to in the vicinity of the ISEGS project. The proposed language memorializing this commitment is as follows:

REC-1: Prior to the start of commercial operations of the first ISEGS power plant to be constructed, the project owner shall prepare plans for a Solar / Ecological Interpretive Center to be developed to in the vicinity of the ISEGS project. The project owner in consultation with the County shall propose a location on-site or off-site that provides a vantage point to observe as many features as is possible of the ISEGS project without compromising safety or security. The project owner's plans for the Solar / Ecological Interpretive Center may be coordinated with San Bernardino County.

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[10] Ex. 300, p. 6.18-15.

[11] Off-road, recreational vehicle trails currently authorized by BLM which run through the proposed project site would be re-located outside of the project boundary fence. The trails that would be rerouted are:

- Trail 699226, which passes through the northern third of Ivanpah 3, would be rerouted along the northern border of Ivanpah 3;
- Trail 699198 would be rerouted between Ivanpah 2 and 3; and
- An unnumbered trail on the east side of Ivanpah 3 would be relocated outside the project site so that it would provide continued access to the limestone outcrop. (Ex. 300, p. 3-11)

Verification:[12]

The Solar / Ecological Interpretive Center shall include or make accessible to the public the following features:

1. surfaced public parking

2. information kiosks describing ISEGS solar energy technology;

3. picnic area with tables,

4. garbage cans;

5. interpretive signs identifying local landmarks and ecological features;

6. a contained restroom facility (or reasonable access to a facility with flush toilets and sinks should the Solar / Ecological Interpretive Center be constructed adjacent to another facility having a restroom);

At least 30 days prior to commercial operation of the first power plant of the ISEGS development, the project owner shall submit plans to BLM's Authorized Officer and the CPM for review and approval for a Solar / Ecological Interpretive Center to be developed in the ISEGS vicinity in coordination with San Bernardino County.

Within 6 months of approval of the proposed Solar /Ecological Interpretive Center plans (1) by the Commission and the BLM, for an on-site Center, or (2) by the County of San Bernardino, for an off-site Center, being final and no longer subject to administrative or judicial review, the project owner shall commence construction of the Center and shall to the extent feasible complete construction within one year following the start of construction if the Center is located off of the ISEGS site. If located on-site, then construction of the Center shall follow the completion of all ISEGS construction. Upon completion the project owner shall submit notice to BLM and the Energy Commission that it has completed construction of the Solar / Ecological Interpretive Center.

In each Annual Compliance Report, the project owner shall provide a summary of estimated public use of the Solar / Ecological Interpretive Center and summarize any issues associated with operating and maintenance activities.

[12] Applicant believes Staff is in accord with this language; however, Applicant added a provision regarding the approvals by the CEC, the BLM and/or San Bernardino County being final and no longer subject to administrative or judicial review. Staff also wanted to move the "Verification" designation down to the paragraph that starts with "At least 30 days prior to…." Applicant believes that the implementation details should be in the verification, not the condition language, especially where, as here, Public Resources Code Section 25529 is wholly inapplicable, and Applicant has voluntarily committed to building the Solar/Ecological Interpretative Center.

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

In the Matter of:	)	
	)	Docket No. 07-AFC-5
Application for Certification for the Ivanpah Solar	)	
Electric Generation System	)	
	)	
	)	

PROOF OF SERVICE

I, Deric J. Wittenborn, declare that on September 2, 2010, I served copies of the attached *Applicant's Comments on the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System and Attachments* by E-Mail and U.S. Mail to each party on the attached service list.

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

Deric J. Wittenborn

07-AFC-5
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September 2, 2010

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EXHIBIT 2

IVANPAH SOLAR ELECTRIC GENERATING SYSTEM

PMPD/ FEIS

COMPARISON CHART

Exhibit 2
IVANPAH PMPD/FEIS
COCs COMPARISON CHART

PMPD CONDITION	BLM CONDITION	COMMENTS
Air Quality		
AQ-SC9	AQ-SC9	The FEIS adds the following underlined language to the verification. Applicant recommends that the verification in the FEIS be revised as follows to conform with the PMPD's AQ-SC9: **Verification:** The project owner shall submit the emergency engine specifications to the CPM ~~at least 30 days prior to purchasing the engines for review and approval.~~ <u>prior to engine installation.</u> The full text of AQ-SC9 as proposed by Applicant is set forth in Exhibit 3, *Applicant's Recommended FEIS Condition Language*.
Biological Resources		
BIO-6	BIO-6	Applicant recommends the adoption of the BIO-6 language set forth in Staff's March 29, 2010 filing, *Energy Commission Staff's Compilation of Edits to Recommended Conditions of Certification- Ivanpah Solar Electric Generating System (07-AFC-05)* ("3/29 Version").[1]
BIO-7	BIO-7	Applicant recommends that the condition in the FEIS be revised as follows to conform with the PMPD's BIO-7: *** The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the Desert Tortoise Translocation Plan, the Raven Management Plan, the Closure, Revegetation and Rehabilitation Plan, the Burrowing Owl Mitigation and Monitoring Plan, <u>and</u> the Weed Management Plan~~, and the Special-Status Plant Remedial Action Plan~~.

[1] In a letter filed and served on August 26, 2010 entitled, *Clerical Errors In PMPD Condition Language for the Ivanpah Solar Electric Generating System (07-AFC-5)* ("August 26th letter"), Applicant provided a list of certain conditions in the *Presiding Member's Proposed Decision* ("PMPD") that Applicant believes contain clerical errors. Also submitted with that letter was the condition language that that Applicant believes reflects the correct version of the condition language, as set forth in Staff's March 29, 2010 filing, *Energy Commission Staff's Compilation of Edits to Recommended Conditions of Certification- Ivanpah Solar Electric Generating System (07-AFC-05).*

Exhibit 2
IVANPAH PMPD/FEIS
COCs COMPARISON CHART

PMPD CONDITION	BLM CONDITION	COMMENTS
BIO-8	BIO-8	Applicant recommends that the condition in the FEIS be revised to conform with the PMPD's BIO-8.
BIO-9	BIO-9	Applicant recommends the adoption of the language submitted by Applicant in its August 26th letter to the Commission. As explained more fully in the August 26th letter, Applicant recommends the adoption of the 3/29 Version of BIO-9, with the exception of the verification language, which Applicant proposes be revised to clarify the approving authorities in the verification so as to be consistent with the condition language.[2]
BIO-11	BIO-11	Applicant recommends that the condition in the FEIS be revised to conform with the PMPD's BIO-11.
BIO-12	BIO-12	Applicant recommends the adoption of the 3/29 Version of BIO-12.[3]
BIO-13	BIO-13	Applicant recommends the adoption of the 3/29 Version of BIO-13.
BIO-17	BIO-17	Applicant recommends the adoption of Applicant's proposed BIO-17 for the reasons set forth above and in *Applicant's Comments On the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System*, filed on September 2, 2010 with the Energy Commission. The full text of BIO-17 as proposed by Applicant is set forth in Exhibit 3, *Applicant's Recommended FEIS Condition Language*.

[2] Applicant's proposed revision to the verification language is consistent with the recommendations made by CEC Staff during the August 24, 2010 Committee Conference and Evidentiary Hearing.

[3] As discussed in Applicant's August 26th letter, Staff and Applicant reached an agreement regarding the language of BIO-12, which is reflected in Staff's March 29th, 2010 filing. However, during the August 24, 2010 Committee Conference and Evidentiary Hearing, Staff proposed additional language recommending a fee of $105 dollars per acre of fees for raven management. As the legal basis for this fee was not discussed during evidentiary hearings, or even identified to Applicant, Applicant supports adoption of the 3/29/10 version agreed to by Staff and Applicant.

Exhibit 2
IVANPAH PMPD/FEIS
COCs COMPARISON CHART

PMPD CONDITION	BLM CONDITION	COMMENTS
BIO-18	BIO-18	Applicant recommends the adoption of Applicant's proposed BIO-18 for the reasons set forth above and in *Applicant's Comments On the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System*, filed on September 2, 2010 with the Energy Commission. The full text of BIO-18 as proposed by Applicant is set forth in Exhibit 3, *Applicant's Recommended FEIS Condition Language*.
BIO-20	BIO-20	Applicant recommends the adoption of Applicant's proposed BIO-20 for the reasons set forth above and in *Applicant's Comments On the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System*, filed on September 2, 2010 with the Energy Commission. The full text of BIO-20 as proposed by Applicant is set forth in Exhibit 3, *Applicant's Recommended FEIS Condition Language*.
---	BIO-21	For the reasons stated in the above comments on the FEIS, Applicant recommends the deletion of BIO-21.
Noise		
NOISE-4	NOISE-4	Applicant recommends the deletion of references to "visitors of the Mojave National Preserve" and "the nearest boundary of the Mojave National Preserve" as there has been no finding of potential significant noise impacts that require mitigation to visitors in that area.
NOISE-7	NOSIE-7	Applicant recommends the deletion of the reference to "the nearest boundary of the Mojave National Preserve."

Exhibit 2
IVANPAH PMPD/FEIS
COCs COMPARISON CHART

PMPD CONDITION	BLM CONDITION	COMMENTS
Recreation		
---	REC-1	Applicant recommends the adoption of Applicant's proposed REC-1 for the reasons set forth above and in *Applicant's Comments On the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System*, filed on September 2, 2010 with the Energy Commission. The full text of REC-1 as proposed by Applicant is set forth in Exhibit 3, *Applicant's Recommended FEIS Condition Language*.
Soil & Water		
SOIL & WATER- 3	SOIL & WATER- 3	Applicant recommends the adoption of the 3/29 Version of SOIL & WATER -3, with the following correction, as noted in Applicant's August 26th letter to the Commission. **Verification:** *** 1. No later than 90 days prior to the construction of the onsite groundwater wells, the project owner shall submit a Groundwater Monitoring and Management Plan to the County of San Bernardino for review and comment (see Condition of Certification **SOIL&WATER- 6**).
Traffic and Transportation		
TRANS-4	TRANS-4	Applicant recommends the deletion of TRANS-4 for the reasons set forth in *Applicant's Comments On the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System*, filed on September 2, 2010 with the Energy Commission, and included as Exhibit 1.
---	TRANS-5	As TRANS-5 was inadvertently omitted from the PMPD, the Applicant has recommended adopting the 3/29 Version of TRANS-5.

Exhibit 2
IVANPAH PMPD/FEIS
COCs COMPARISON CHART

PMPD CONDITION	BLM CONDITION	COMMENTS
Visual Resources		
VIS-3	VIS-3	Applicant recommends the deletion of VIS-3 for the reasons set forth in *Applicant's Comments On the Presiding Member's Proposed Decision for the Ivanpah Solar Electric Generating System*, filed on September 2, 2010 with the Energy Commission, and included as Exhibit 1.

EXHIBIT 3

APPLICANT'S RECOMMENDED

FEIS CONDITION LANGUAGE

Exhibit 3
Applicant's Recommended FEIS Condition Language

AQ-SC9

The emergency generator and fire pump engines procured for this project will meet or exceed the NSPS Subpart IIII emission standards for the model year that corresponds to their date of purchase.

Verification:

The project owner shall submit the emergency engine specifications to the CPM prior to engine installation.

BIO-6

The project owner shall develop and implement an Ivanpah SEGS-specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP from BLM's Authorized Officer and the CPM. The USFWS and CDFG shall also be provided a copy of the WEAP for review and comment. The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure. The WEAP shall:

1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting written material and electronic media, including photographs of protected species, is made available to all participants.

2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, and explain the reasons for protecting these resources; provide information to participants that Gila monsters are venomous and should not be handled, and that no snakes, reptiles, or other wildlife shall be harmed;

3. Place special emphasis on desert tortoise, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures;

4. Include a discussion of fire prevention measures to be implemented by workers during project activities; request workers dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;

5. Present the meaning of various temporary and permanent habitat protection measures;

6. Identify whom to contact if there are further comments and questions about the material discussed in the program; and

7. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines. The specific program can be administered by a competent individual(s) acceptable to the Designated Biologist.

Verification:

At least 60 days prior to the start of any project-related site disturbance activities, the project owner shall provide to BLM's Authorized Officer and the CPM a copy of the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.

The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. At least 10 days prior to site and related facilities mobilization, the project owner shall submit two copies of the BLM- and CPM-approved final WEAP.

Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least six months after the start of commercial operation.

Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to BLM's Authorized Officer and the CPM and upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.

During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP)

BIO-7

The project owner shall develop a BRMIMP and submit two copies of the proposed BRMIMP to the CPM and BLM-Authorized Officer for review and approval and shall implement the measures identified in the approved BRMIMP. The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the Desert Tortoise Translocation Plan, the Raven Management Plan, the Closure, Revegetation and Rehabilitation Plan, the Burrowing Owl Mitigation and Monitoring Plan, and the Weed Management Plan.

The BRMIMP shall be prepared in consultation with the Designated Biologist and include the following:

1. All biological resources mitigation, monitoring, and compliance measures proposed and agreed to by the project owner;

2. All biological resources conditions of certification identified as necessary to avoid or mitigate impacts;

3. All biological resource mitigation, monitoring and compliance measures required in federal agency terms and conditions, such as those provided in the USFWS Biological Opinion;

4. All sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure;

5. All required mitigation measures for each sensitive biological resource;

6. A detailed description of measures that shall be taken to avoid or mitigate temporary disturbances from construction activities;

7. All locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction and operation;

8. Aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities; include one set prior to any site or related facilities mobilization disturbance and one set subsequent to completion of project construction. Provide planned timing of aerial photography and a description of why times were chosen. Provide a final accounting of the before/after acreages and a determination of whether additional habitat compensation is necessary in the Construction Termination Report;

9. Duration for each type of monitoring and a description of monitoring methodologies and frequency;

10. Performance standards to be used to help decide if/when proposed mitigation is or is not successful;

11. All performance standards and remedial measures to be implemented if performance standards are not met;

12. A discussion of biological resources-related facility closure measures including a description of funding mechanism(s); and

13. A process for proposing plan modifications to the CPM and BLM's Authorized Officer and appropriate agencies for review and approval.

Verification:

The project owner shall submit the BRMIMP to the CPM and BLM Authorized Officer at least 60 days prior to start of any project-related site disturbance activities. The BRMIMP shall contain all of the required measures included in all biological Conditions of Certification. No ground disturbance may occur prior to approval of the final BRMIMP by the CPM and BLM's Authorized Officer.

The CPM and BLM's Authorized Office, in consultation with other appropriate agencies, will determine the BRMIMP's acceptability within 45 days of receipt. If there are any permits that have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to the CPM and BLM's Authorized Officer within five days of their receipt, and the BRMIMP shall be revised or supplemented to reflect the permit condition within at least 10 days of their receipt by the project owner. Ten days prior to site and related facilities mobilization the revised BRMIMP shall be resubmitted to the CPM and BLM's Authorized Officer.

The project owner shall notify the CPM and BLM's Authorized Officer no less than five working days before implementing any modifications to the approved BRMIMP to obtain the CPM and BLM's Authorized Officer.

Any changes to the approved BRMIMP must also be approved by the CPM and BLM's Authorized Officer in consultation with appropriate agencies to ensure no conflicts exist.

Implementation of BRMIMP measures (construction activities that were monitored, species observed) will be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of project construction, the project owner shall provide to the CPM and BLM's Authorized Officer, for review and approval, a written construction termination report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's site mobilization, ground disturbance, grading, and construction phases, and which mitigation and monitoring items are still outstanding.

Desert Tortoise Clearance Surveys and Fencing

BIO-8 The project owner shall undertake appropriate measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to desert tortoise. Methods for clearance surveys, fence installation, tortoise handling, artificial burrow construction, egg handling and other procedures would be consistent with those described in the *Guidelines for Handling Desert Tortoise During Construction Projects* (Desert Tortoise Council 1999) or more current guidance provided by CDFG and USFWS. The project owner shall also implement all terms and conditions described in the Biological Opinion prepared by USFWS. These measures include, but are not limited to, the following:

1. Fence Installation. To avoid impacts to desert tortoises the proposed fence alignment shall be flagged and the alignment surveyed within 24 hours prior to the initiation of construction of tortoise-exclusion fence. Surveys shall be conducted by the Designated Biologist(s) using techniques approved by the USFWS and CDFG. Biological Monitors may assist the Designated Biologist under his or her supervision. These surveys shall provide 100-percent coverage of all areas to be disturbed and an additional transect along both sides of the fence line. This fence line transect will cover an area approximately 90 feet wide centered on the fence alignment. Transects would be no greater than 30 feet apart. All desert tortoise burrows, and burrows constructed by other species that might be used by desert tortoises, shall be examined to assess occupancy of each burrow by desert tortoises and handled in accordance with USFWS-approved protocol.

2. Fence Installation. Prior to the initiation of construction activities for each solar plant, the project owner shall enclose the boundary of the affected solar plant with permanent chain-link fencing for security purposes and permanent desert tortoise exclusionary fencing would be attached to the bottom of the chain link fencing. The fence installation shall be supervised by the Designated Biologist and monitored by the Biological Monitors to ensure the safety of any tortoise present.

    a. Fence Material and Installation. The permanent tortoise exclusionary fencing shall consist of galvanized hard wire cloth 1-inch by 2-inch mesh sunk 12 inches into the ground, and 24 inches above the ground (but not less than 18 inches above the ground) (USFWS 2008). The fencing shall be buried approximately 6 inches below ground or bent at a right angle towards the outside of the project site and covered with dirt, rocks or gravel to discourage the tortoise from digging under the fence

b. Security Gates. Security gates shall be designed with minimal ground clearance to deter ingress by tortoises. The gates may be electronically activated to open and close immediately after the vehicle(s) have entered or exited to prevent the gates from being kept open for long periods of time. Cattle grating designed to safely exclude desert tortoise shall be installed at the gated entries to discourage tortoises from gaining entry

c. Utility Corridor Fencing. The utility rights-of-way shall be temporarily fenced on each side of the right-of-way prior to ground disturbing activities to prevent desert tortoise entry during construction. Temporary fencing must follow guidelines for permanent fencing and supporting stakes shall be sufficiently spaced to maintain fence integrity.

d. Fence Inspections. Following installation of the desert tortoise exclusion fencing for both the permanent site fencing and temporary fencing in the utility corridors, the fencing shall be regularly inspected. Permanent fencing shall be inspected monthly and during/following all major rainfall events. Any damage to the fencing shall be temporarily repaired immediately to keep tortoises out of the site, and permanently repaired within two days of observing damage. Inspections of permanent site fencing shall occur for the life of the project. Temporary fencing must be inspected weekly and, where drainages intersect the fencing, during and immediately following major rainfall events. All temporary fencing shall be repaired immediately upon discovery and, if the fence may have permitted tortoise entry while damaged, the Designated Biologist shall inspect the area for tortoise.

3. Clearance Surveys. Following construction of the security fence and the attached tortoise exclusion fence, the fenced area shall be cleared of tortoises by Biological Monitors under the supervision of the Designated Biologist. Two complete passes with complete coverage shall be conducted as described above. If a desert tortoise is located on the second survey, a third survey would be conducted. Transects would be no wider than 30 feet. Each separate survey would be walked in a different direction to allow opposing angles of observation. Vegetation salvage operations shall not begin until the area is deemed free of desert tortoises.

4. Burrow Searches. During clearance surveys all potential desert tortoise burrows within the fenced area shall be inspected to determine if tortoises are present. In some cases, a fiber optic scope may be needed to determine presence or absence within a deep burrow. To prevent reentry by a tortoise or other wildlife, all burrows shall be collapsed once absence has been determined. Tortoises taken from burrows and from elsewhere on the site shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan.

5. Burrow Excavation/Handling. All potential desert tortoise burrows located would be excavated by hand by a Biological Monitor, tortoises removed, and collapsed or blocked to prevent occupation by desert tortoises. Burrows inhabited by tortoises shall be excavated using hand tools under the supervision of the Designated Biologist. If excavated during May through July, the Biological Monitor would search for desert tortoise nests/eggs, which are typically located near the entrance to burrows. All desert tortoise handling and removal, and burrow excavations, including nests, would be conducted by the Designated Biologist or a Biological Monitor in accordance with the Service-approved protocol (Desert Tortoise Council 1994, revised 1999). If the Desert Tortoise Council releases a revised protocol for handling of desert tortoises before initiation of project activities, the revised protocol would be implemented for the project.

6. Monitoring During Clearing. Following the tortoise clearance and translocation, workers and heavy equipment shall be allowed to enter the project site to perform vegetation salvage and earth work such as clearing, grubbing, leveling, trenching, and installation of heliostats. A Biological Monitor shall monitor clearing and grading activities to find and move tortoises missed during the initial tortoise clearance survey. Should a tortoise be discovered, it shall be relocated or translocated as described in the Desert Tortoise Relocation/Translocation Plan to an area approved by the Designated Biologist.

7. Reporting. The Designated Biologist shall record the following information for any desert tortoises handled: a) the locations (narrative and maps) and dates of observation; b) general condition and health, including injuries, state of healing and whether desert tortoise voided their bladders; c) location moved from and location moved to (using GPS technology); d) gender, carapace length, and diagnostic markings (i.e., identification numbers or marked lateral scutes); e) ambient temperature when handled and released; and f) digital photograph of each handled desert tortoise as described in the paragraph below. Desert tortoise moved from within project areas shall be marked for future identification as described in *Guidelines for Handling Desert Tortoise during Construction Projects* (Desert Tortoise Council 1999) or more current guidance on the USFWS website. Digital photographs of the carapace, plastron, and fourth costal scute shall be taken. Scutes shall not be notched for identification.

Verification: All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures shall be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of desert tortoise clearance surveys the Designated Biologist shall submit a report to BLM's Authorized Officer, the CPM, USFWS, and CDFG describing how each of the mitigation measures described above has been satisfied. The report shall include the desert tortoise survey results, capture and release locations of any

relocated desert tortoises, and any other information needed to demonstrate compliance with the measures described above.

BIO-9

The project owner shall develop and implement a final Desert Tortoise Relocation/Translocation Plan (Plan) that is consistent with current USFWS approved guidelines, and meets the approval of BLM's Authorized Officer, USFWS and the CPM, in consultation with CDFG. The final Plan shall be based on the draft Desert Tortoise Relocation/Translocation Plan prepared by the applicant dated May 2009 and shall include all revisions deemed necessary by BLM's Authorized Officer, USFWS, and the CPM, in consultation with CDFG.

Verification:

Within 60 days of publication of the Energy Commission Decision the project owner shall provide BLM's Authorized Officer and the CPM with the final version of a Desert Tortoise Relocation/Translocation Plan that has been reviewed and approved by BLM, USFWS, and the CPM in consultation with CDFG. BLM's Authorized Officer and the CPM will determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved translocation must be made only after consultation with BLM's Authorized Officer, USFWS and the CPM, in consultation with CDFG.

Within 30 days after initiation of translocation activities, the Designated Biologist shall provide to BLM's Authorized Officer and the CPM for review and approval, a written report identifying which items of the Plan have been completed, and a summary of all modifications to measures made during implementation of the Plan.

Impact Avoidance and Minimization Measures

BIO-11 During construction the project owner shall implement all feasible measures to avoid or minimize impacts to biological resources, including the following:

1. Limit Disturbance Areas. The boundaries of all areas to be disturbed (including staging areas, access roads, and sites for temporary placement of spoils) shall be delineated with stakes and flagging prior to construction activities in consultation with the Designated Biologist. Spoils and topsoil shall be stockpiled in disturbed areas lacking native vegetation and which do not provide habitat for special-status species. All disturbances, project vehicles and equipment shall be confined to the flagged areas.

2. Minimize Road Impacts. New and existing roads that are planned for construction, widening, or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning around will do so within the planned impact area or in previously

disturbed areas. Where new access is required outside of existing roads or the construction zone, the route will be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.

3. Minimize Traffic Impacts. Vehicular traffic during project construction and operation shall be confined to existing routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 20 miles per hour within the project area, on maintenance roads for linear facilities, or on access roads to the ISEGS site.

4. Monitor During Construction. The Designated Biologist or Biological Monitor shall be present at the construction site during all project activities that have potential to disturb soil, vegetation, and wildlife. In areas that have not been fenced with tortoise exclusion fencing and cleared, the USFWS-approved Designated Biologist or Biological Monitor shall walk immediately ahead of equipment during brushing and grading activities.

5. .Minimize Impacts of Transmission/Pipeline Alignments, Roads, Staging Areas. Staging areas for construction on the plant site shall be within the area that has been fenced with desert tortoise exclusion fencing and cleared. For construction activities outside of the plant site (transmission line, pipeline alignments) access roads, pulling sites, and storage and parking areas shall be designed, installed, and maintained with the goal of minimizing impacts to native plant communities and sensitive biological resources. Transmission lines and all electrical components shall be designed, installed, and maintained in accordance with the Avian Power Line Interaction Committee's (APLIC's) Suggested Practices for Avian Protection on Power Lines (APLIC 2006) and Mitigating Bird Collisions with Power Lines (APLIC 2004) to reduce the likelihood of large bird electrocutions and collisions.

6. Avoid Use of Toxic Substances. Road surfacing and sealants as well as soil bonding and weighting agents used on unpaved surfaces shall be non-toxic to wildlife and plants.

7. .Minimize Lighting Impacts. Facility lighting shall be designed, installed, and maintained to prevent side casting of light towards wildlife habitat. To minimize risk of avian collisions with the heliostat towers, only flashing or strobe lights shall be installed on these towers.

8. Badger Surveys. Concurrent with the desert tortoise clearance survey, the Designated Biologist or Biological Monitors shall perform a preconstruction survey for badger dens in the project area, including areas within 250 feet of all project facilities, utility corridors, and access roads. If badger dens are found, each den shall be classified as inactive,

potentially active, or definitely active. Inactive dens shall be excavated by hand and backfilled to prevent reuse by badgers. Potentially and definitely active dens shall be monitored by the Designated Biologist or Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) at the entrance. If no tracks are observed in the tracking medium after 3 nights, the den shall be excavated and backfilled by hand. If tracks are observed, the applicant shall develop and implement a trapping and relocation plan in consultation with the Designated Biologist and CDFG. BLM approval may be required prior to release of badgers on public lands.

9. Gila Monster Surveys. If a Gila monster is encountered during clearance surveys or during construction, a qualified biologist experienced with Gila monster survey and capture techniques shall capture and maintain it in a cool (<85 degrees F) environment until it can be released to a safe, suitable area beyond the construction impact zone. The biologist shall coordinate with staff and CDFG biologists in the transport and relocation of any Gila monsters encountered during project surveys, construction, or operation.

10. Avoid Vehicle Impacts to Desert Tortoise. Parking and storage shall occur within the area enclosed by desert tortoise exclusion fencing to the extent feasible. No vehicles or construction equipment parked outside the fenced area shall be moved prior to an inspection of the ground beneath the vehicle for the presence of desert tortoise. If a desert tortoise is observed, it will be left to move on its own. If it does not move within 15 minutes, a Designated Biologist or Biological Monitor may remove and relocate the animal to a safe location if temperatures are within the range described in the USFWS protocol (www.fws.gov/ventura/speciesinfo/protocols_guidelines and Desert Tortoise Council 1999).

11. Avoid Wildlife Pitfalls:

    a. Backfill Trenches. At the end of each work day, the Designated Biologist shall ensure that all potential wildlife pitfalls (trenches, bores, and other excavations) outside the area fenced with desert tortoise exclusion fencing have been backfilled. If backfilling is not feasible, all trenches, bores, and other excavations shall be sloped at a 3:1 ratio at the ends to provide wildlife escape ramps, or covered completely to prevent wildlife access, or fully enclosed with desert tortoise-exclusion fencing. All trenches, bores, and other excavations outside the areas permanently fenced with desert tortoise exclusion fencing shall be inspected periodically throughout the day and at the end of each workday by the Designated Biologist or a Biological Monitor. Should a tortoise or other wildlife become trapped, the Designated Biologist or Biological Monitor shall remove and relocate the individual as

described in the Desert Tortoise Relocation/Translocation Plan. Any wildlife encountered during the course of construction shall be allowed to leave the construction area unharmed.

b. Avoid Entrapment of Desert Tortoise. Any construction pipe, culvert, or similar structure with a diameter greater than 3 inches, stored less than 8 inches aboveground and within desert tortoise habitat (i.e., outside the permanently fenced area) for one or more nights, shall be inspected for tortoises before the material is moved, buried or capped. As an alternative, all such structures may be capped before being stored outside the fenced area, or placed on pipe racks. These materials would not need to be inspected or capped if they are stored within the permanently fenced area after the clearance surveys have been completed.

c. Cap Heliostat Holes. All holes drilled for heliostats shall be capped the same day they are drilled. Caps shall remain on the holes until heliostats are inserted into the holes, and shall be securely fastened and sufficiently sturdy to cover the heliostat holes indefinitely. The caps shall exclude all wildlife, and shall be inspected weekly by the Designated Biologist or Biological Monitors to ensure that the caps remain in place and that birds and terrestrial wildlife have not become trapped.

12. Minimize Standing Water. Water applied to construction areas and dirt roads for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles, which could attract desert tortoises, common ravens and coyotes to construction sites.

13. Dispose of Roadkilled Animals. Road killed animals or other carcasses detected in the project area or on roads near the project area shall be picked up immediately upon detection and appropriately disposed of to avoid attracting common ravens and coyotes.

14. Minimize Spills of Hazardous Materials. All vehicles and equipment shall be maintained in proper working condition to minimize the potential for fugitive emissions of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials. The Designated Biologist shall be informed of any hazardous spills immediately as directed in the project Hazardous Materials Plan. Hazardous spills shall be immediately cleaned up and the contaminated soil properly disposed of at a licensed facility. Servicing of construction equipment shall take place only at a designated area. Service/maintenance vehicles shall carry a bucket and pads to absorb leaks or spills.

15.. Worker Guidelines. During construction all trash and food-related waste shall be placed in self-closing containers and removed daily from the site. Workers shall not feed wildlife or bring pets to the project site. Except for law enforcement personnel, no workers or visitors to the site shall bring firearms or weapons. Vehicular traffic shall be confined to existing routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit when traveling on Colosseum Road and other dirt access routes within desert tortoise habitat shall not exceed 20 miles per hour.

16. Monitor Ground Disturbing Activities Prior to Site Mobilization. If ground-disturbing activities are required prior to site mobilization, such as for geotechnical borings or hazardous waste evaluations, a Designated Biologist or Biological Monitor shall be present to monitor any actions that could disturb soil, vegetation, or wildlife.

Verification:

All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures will be reported in the Monthly Compliance Reports by the Designated Biologist. Within 30 days after completion of project construction, the project owner shall provide to BLM's Authorized Officer and the CPM, for review and approval, a written construction termination report identifying how measures have been completed.

BIO-12

The project owner shall implement a Raven Management Plan that is consistent with the most current USFWS-approved raven management guidelines, and which meets the approval of USFWS, BLM's Authorized Officer, and the CPM in consultation with CDFG. The draft Raven Management Plan submitted by the applicant (CH2M Hill 2008f) shall provide the basis for the final plan, subject to review and revisions from USFWS, CDFG, BLM's Authorized Officer and the CPM in consultation with CDFG.

Verification:

At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide BLM's Authorized Officer, the CPM, USFWS, and CDFG with the final version of a Raven Management Plan that has been reviewed by USFWS, CDFG, BLM, and the Energy Commission staff. The CPM and BLM's Authorized Officer will determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved Raven Management Plan shall be made only after approval by BLM's Authorized Officer and the CPM, in consultation with USFWS and CDFG.

Within 60 days after completion of project construction, the project owner shall provide

to the CPM for review and approval, a written report identifying which items of the Raven Management Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.

BIO-13

The project owner shall implement a Weed Management Plan that meets the approval of BLM and the CPM. The draft Weed Management Plan submitted by the applicant (CH2M Hill 2008e) shall provide the basis for the final plan, subject to review and approval from BLM and the CPM, in consultation with USFWS, and CDFG. In addition to describing weed eradication and control methods, and a reporting plan for weed management during and after construction, the final Weed Management Plan shall include at least the following Best Management Practices to prevent the spread and propagation of noxious weeds:

1. Limit the size of any vegetation and/or ground disturbance to the absolute minimum, and limit ingress and egress to defined routes.

2. Maintain vehicle wash and inspection stations and closely monitor the types of materials brought onto the site.

3. Reestablish vegetation quickly on disturbed sites.

4. Monitoring and rapid implementation of control measures to ensure early detection and eradication for weed invasions.

5. Use only weed-free straw or hay bales used for sediment barrier installations, and weed-free seed.

6. Reclamation and revegetation shall occur on all temporarily disturbed areas, including pipelines, transmission lines, and staging areas.

Verification:

At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide BLM's Authorized Officer and the CPM with the final version of a Weed Management Plan. BLM's Authorized Officer and the CPM will determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved Weed Control Plan must be made only after consultation with the CPM and BLM's Authorized Officer, in consultation with USFWS, and CDFG.

Within 30 days after completion of project construction, the project owner shall provide to BLM's Authorized Officer and the CPM for review and approval, a written report

identifying which items of the Weed Management Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.

Desert Tortoise Compensatory Mitigation

BIO-17 To fully mitigate for habitat loss and potential take of desert tortoise, the project owner shall provide compensatory mitigation at a 3:1 ratio for impacts to 3,582 acres, or the area disturbed by the final project footprint. At least two thirds of the 3:1 mitigation requirement shall be achieved by acquisition, in fee title or in easement, of no less than 7,164 acres of land suitable for desert tortoise.

The project owner shall acquire, or provide funding for, the acquisition, initial habitat improvements and long-term management of these Energy Commission Compensation Mitigation Lands. The remaining one third of the 3:1 compensatory mitigation requirement, to satisfy BLM's mitigation requirements and the balance of the Energy Commission's mitigation requirements, shall be developed by the BLM in accordance with BLM's responsibilities as the federal land manager. The BLM has determined that the compensatory mitigation for the project shall include 50 miles of desert tortoise fencing in the Northeastern Mojave Recovery Unit and the habitat restoration of at least 50 routes within the Desert Wildlife Management Area.

The project owner may later agree to voluntarily participate in the in-lieu fee program underdevelopment pursuant to the requirements of SB x8 34 (Chapter 9, Stats. 2010); provided, however, that the CPM will approve the project's owner's proposed voluntary participation by determining that such voluntary participation satisfies the substantive requirements of this Condition.

Verification:

Project Owner Acquired Lands

1. If the project owner elects to acquire 7,164 acres of land suitable for desert tortoise, then fifteen days prior to commencement of construction, the project owner shall transmit to CPM and the BLM's Authorized Officer a statement, signed by the project manager, attesting that the project owner intends to acquire 7,164 acres of land suitable for desert tortoise and describing the project's owner's plans for acquiring such lands.
    a. Security, as defined below, shall be provided for Project Owner Acquired Lands as described in Section 4 below.
    b. The transfer of title of such acquired lands shall be effectuated as described below in Section 5, titled "Land Title Transfer for Acquired Lands."

Third-Party Acquired Lands

2. Responsibility for Acquisition of Lands: The responsibility for acquisition of compensation lands may be delegated to a third party, such as a non-governmental organization supportive of Mojave Desert habitat conservation. Such delegation shall be subject to approval in writing by the CPM, in consultation with BLM, CDFG and USFWS, prior to land acquisition, enhancement or management activities. If habitat disturbance exceeds that described in this condition, the project owner shall be responsible for funding acquisition, habitat improvements and long-term management of additional compensation lands or additional funds required to compensate for any additional habitat disturbances. Additional funds shall be based on the adjusted market value of compensation lands at the time of construction to acquire and manage habitat. Water and mineral rights shall be included as part of the land acquisition. Agreements to delegate land acquisition to CDFG or an approved third party and to manage compensation lands shall be implemented within 18 months of the Energy Commission's decision.

   a. Security, as defined below, shall be provided for Third Party Acquired Lands as described in Section 4 below.

   b. The transfer of title of such acquired lands shall be effectuated as described below in Section 5, titled "Land Title Transfer for Acquired Lands."

Selection Criteria for Compensation Lands

3. Regardless of whether the compensation lands selected for acquisition are Project Owner Acquired Lands or Third-Party Acquired Lands, such lands shall to the extent feasible :

   a. Be as close to the project site as possible;

   b. Provide good quality habitat for desert tortoise with capacity to regenerate naturally when disturbances are removed;

   c. Be near larger blocks of lands that are either already protected or planned for protection, or which could feasibly be protected long-term by a public resource agency or a non-governmental organization dedicated to habitat preservation;

   d. Be connected to lands currently occupied by desert tortoise, ideally with populations that are stable, recovering, or likely to recover;

   e. Not have a history of intensive recreational use or other disturbance that might make habitat recovery and restoration infeasible;

f. Not be characterized by high densities of invasive species, either on or immediately adjacent to the parcels under consideration, that might jeopardize habitat recovery and restoration, and

g. not contain hazardous wastes.

h. Review and Approval of Compensation Lands Prior to Acquisition. The project owner shall submit a formal acquisition proposal to the CPM, CDFG, USFWS and BLM describing the parcel(s) intended for purchase. This acquisition proposal shall discuss the suitability of the proposed parcel(s) as compensation lands for desert tortoise in relation to the criteria listed above. Approval from the CPM, in consultation with BLM, CDFG and the USFWS, shall be required for acquisition of all parcels comprising the 7,164 acres.

Security

4. Energy Commission Compensation Land Mitigation Security: The project owner shall provide financial assurances to the CPM with copies of the document(s) to BLM, CDFG and the USFWS, to guarantee that an adequate level of funding is available to implement the Energy Commission Compensation Land Mitigation requirements described in this condition (the "Security"). The Security shall be used solely for implementation of the measures associated with the project. Alternatively, financial assurance can be provided to the CPM in the form of an irrevocable letter of credit, a pledged savings account or another form of financial instrument. This Security amount was calculated as follows and may be revised upon completion of a Property Analysis Record (PAR) or PAR-like analysis of the proposed compensation lands:

a. land acquisition costs for compensation lands, calculated at $910/acre x 3,582 acres x 2:1 = $6,519,240;

b. costs of initial habitat improvements to compensation lands, calculated at $250/acre x 3,582 acres x 2:1 = $1,791,000; and

c. Costs of installing 50 miles of desert tortoise fencing in the Northeastern Mojave Recovery Unit and the habitat restoration of at least 50 routes within the Desert Wildlife Management Area, for a total of $ 3,381,000, which includes:

i. 50 miles of fence x $6.50 per linear foot;

ii. 50 miles of Desert Tortoise Monitoring= $432,000;

iii. 50 miles of OHV trail rehabilitation and reclamation, calculated at 3,000 SF per trail x $2.50 per SF= $375,000;

iv. 50 miles of OHV desert tortoise monitoring= $108,000;

v. Allowance for permitting activities= $500,000;

vi. Allowance for Project Management= $250,000.

d. **Total Security** = $11,691,240.

e. Project Owner Acquired Lands: Security shall be paid as follows:

i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.

ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall provide either: (1) the final installment of Security in the amount of sixty eight percent (68% of the Total Security), or (2) provide information that demonstrates to the CPM and the BLM's Authorized Officer that 7,164 acres of land suitable for desert tortoise has been identified and secured through a legally binding option agreement or other legal instrument.

iii. Upon confirmation by the CPM and the BLM's Authorized Officer that 7,164 acres of land suitable for desert tortoise has been identified and secured through a legally binding option agreement or other legal instrument, the project owner shall be entitled to either a refund of monies paid pursuant to subsections (i) and (ii) above, or any funds paid to date may be credited against the project owner's Long-Term Management and Maintenance fees to be paid pursuant to Section 6 below.

f. Third Party Acquired Lands: Security shall be paid as follows:

i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.

ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall provide the final installment of Security in the amount of sixty eight percent (68% of the Total Security).

Land Title Transfer for Acquired Lands

5. Compensation Lands Acquisition Conditions: Regardless of whether the project owner elects to acquire 7,164 acres of land suitable for desert tortoise or allows a third-party to acquire such lands, the project owner shall comply with the following conditions relating to acquisition.

   a. Preliminary Report: The project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary documents for the proposed 7,164 acres. All documents conveying or conserving compensation lands and all conditions of title/easement are subject to a field review and approval by the CPM, in consultation with BLM, CDFG and the USFWS, California Department of General Services and, if applicable, the Fish and Game Commission and/or the Wildlife Conservation Board.

   b. Title/Conveyance: The project owner shall transfer fee title or a conservation easement to the 7,164 acres of compensation lands to CDFG under terms approved by CPM. Alternatively, a non-profit organization qualified to manage compensation lands (pursuant to California Government Code section 65965) and approved by the CPM in consultation with CDFG may hold fee title or a conservation easement over the habitat mitigation lands. If the approved non-profit organization holds title, a conservation easement shall be recorded in favor of CDFG in a form approved by CPM. If the approved non-profit holds a conservation easement, CDFG shall be named a third party beneficiary. If a Security is provided, the project owner or an approved third party shall complete the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities.

Long-term Management and Maintenance

6. Initial Habitat Improvement Fund: The project owner shall fund the initial protection and habitat improvement of the 7,164 acres. Alternatively, a non-profit organization may hold the habitat improvement funds if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of the CPM in consultation with CDFG. If CDFG takes fee title to the compensation lands, the habitat improvement fund must go to CDFG.

   a. Long-term Management and Maintenance Fund. Prior to ground-disturbing project activities, the project owner shall provide to CDFG a non-wasting capital long-term management and maintenance fee in the amount determined through the Property Analysis Record (PAR) or PAR-like analysis that will be conducted for the 7,164 acres acquired

and the fencing and habitat restoration as required by the BLM. The project owner's financial responsibility for the actual cost of mitigation shall not increase by more than 25% of the total Security Amount ($11,691,240). Alternatively, a non-profit organization may hold the long-term management and maintenance fees if they are qualified to manage the compensation lands (pursuant to California Government Code section 65965) and if they meet the approval of CDFG and the CPM. If CDFG takes fee title to the compensation lands, the long-term management and maintenance fee must go to CDFG, where it will be held in the special deposit fund established pursuant to California Government Code section 16370. If the special deposit fund is not used to manage the long-term management and maintenance fee, the California Wildlife Foundation or similarly approved entity identified by CDFG shall manage the long-term management and maintenance fee for CDFG and with CDFG supervision.

b. Interest, Principal, and Pooling of Funds. The project owner, CDFG and the CPM shall ensure that an agreement is in place with the long-term management and maintenance fee holder/manager to ensure the following conditions:

   i. Interest. Interest generated from the initial capital long-term management and maintenance fee shall be available for reinvestment into the principal and for the long-term operation, management, and protection of the approved compensation lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action approved by CDFG designed to protect or improve the habitat values of the compensation lands.

   ii. Withdrawal of Principal. The long-term management and maintenance fee principal shall not be drawn upon unless such withdrawal is deemed necessary by the CDFG or the approved third-party long-term management and maintenance fee manager to ensure the continued viability of the species on the 7,164 acres. If CDFG takes fee title to the compensation lands, monies received by CDFG pursuant to this provision shall be deposited in a special deposit fund established pursuant to Government Code section 16370. If the special deposit fund is not used to manage the long-term management and maintenance fee, the California Wildlife Foundation or similarly approved entity identified by CDFG will manage the long-term management and maintenance fee for CDFG with CDFG supervision.

   iii. Pooling Long-term Management and Maintenance Fee Funds. CDFG, or a CPM and CDFG approved non-profit organization qualified to hold long-term management and maintenance fees pursuant to California Government Code section 65965, may pool

the long-term management and maintenance fee with other long-term management and maintenance fees for the operation, management, and protection of the 7,164 acres for local populations of desert tortoise. However, for reporting purposes, the long-term management and maintenance fee fund must be tracked and reported individually to the CDFG and CPM.

iv. Reimbursement Fund. The project owner shall provide reimbursement to CDFG or an approved third party for reasonable expenses incurred during title, easement, and documentation review; expenses incurred from other state or state approved federal agency reviews; and overhead related to providing compensation lands.

7. **Post-Construction Reporting Requirements:** Within 90 days after completion of project construction, the project owner shall provide to the CPM and CDFG an analysis with the final accounting of the amount of habitat disturbed during project construction. If habitat disturbance exceeds 3,582 acres, the project owner shall provide a compensation plan to the CMP for review and approval, in consultation with BLM, CDFG and the USFWS. The additional compensation plan shall be submitted no later than 90 days from the CPM's receipt of the final accounting, and shall include a description of additional funds required or lands that will be acquired to compensate for the unanticipated habitat disturbances, and a schedule for that acquisition or funding inclusive of all associated long-term management and maintenance fee and enhancement costs. The project owner's financial responsibility for the actual cost of mitigation shall not increase by more than 25 percent of the total Security Amount ($11,691,240).

8. **SBx8 34 Programs Under Development**. The project owner may later seek approval to participate in the in-lieu fee and other optional, voluntary programs under development pursuant to the requirements of SB x8 34 (Chapter 9, Stats. 2010). The project owner may submit a request to participate in the optional, voluntary SBx8 34 in-lieu fee and other programs developed to the CPM for review and approval and to BLM, CDFG, and USWFS for review and comment. The CPM shall approve the project owner's request if the CPM determines that the request will satisfy the substantive requirements of this Condition.

Special-Status Plant Impact Avoidance and Minimization

BIO-18 The project owner shall implement the following measures to avoid and minimize impacts to special-status plant species.

1. On-Site Plant Avoidance/Minimization Areas: To the extent feasible, the project owner shall avoid and minimize disturbance to all special-status plant species within the project site. Impact avoidance (such as protection from project-related impacts through removal of acreage from the project footprint) and other avoidance/minimization efforts shall occur in all feasible locations. Impact avoidance/minimization shall focus on areas that support the highest density and diversity of special-status plant species and shall remove, at a minimum, the three areas totaling 476 acres and labeled "Rare Plant Mitigation Area" in **Project Description Figure 13** from the project footprint. The natural gas pipeline shall be aligned and narrowed to avoid special-status plant occurrences north of Ivanpah 3 as depicted in **Project Description Figure 13**. Impact avoidance and minimization shall also be conducted throughout the site. Impact avoidance and minimization within the solar field shall consist of protecting small perimeters ("halos") around all Mojave milkweed and Rusby's desert-mallow plants as determined feasible. Rare plant avoidance and minimization measures are described in the Applicant's January 2010 Draft Rare Plant Avoidance and Protection (Exhibit 81) and the Applicant's February 2010 Biological Mitigation Proposal ("Mitigated Ivanpah 3") (Exhibit 88).

2. Protection Goals: The project owner shall implement all feasible measures to protect or salvage and transplant 75 percent of the individuals of the two long-lived perennials, desert pincushion and Parish's club-cholla. All feasible measures will be implemented to protect species that are subject to seasonal variation, Mojave milkweed, Rusby's desert-mallow, and nine-awned pappus grass. More detail on protection goals for these special-status plant species is included in the Applicant's 2010 Draft Rare Plant Avoidance and Protection Plan (Exhibit 81) and the Applicant's February 2010 Biological Mitigation Proposal ("Mitigated Ivanpah 3") (Exhibit 88). Each year during construction, monitoring the percent protection achieved shall be conducted as described in the Rare Plant Protection and Avoidance Plan. Baseline and post-construction monitoring shall be based on surveys conducted by a qualified botanist.

3. Identify and Establish Special-Status Plant Protection Areas: The project owner shall identify Special-Status Plant Protection Areas for exclusion from the project footprint and avoidance of project-related impacts to facilitate achieving protection goals. The Rare Plant Protection Areas shall encompass at a minimum the three areas totaling 476 acres and labeled "Rare Plant Mitigation Area" in **Project Description Figure 13**. The locations of the Special-Status Plant Protection Areas shall be clearly depicted on all final maps and project drawings and descriptions for exclusion of all project activities.

4. Protection of Adjacent Occurrences: The project owner shall identify special-status plants occurrences within 250 feet of the project fence line. A qualified botanist shall delineate the boundaries of these special-status plant occurrences prior to the initiation of ground disturbing activities. These flagged special-status plant occurrences shall be designated as Environmentally Sensitive Areas on plans and specifications, and shall be protected from accidental impacts during construction (e.g., vehicle traffic, temporary placement of soils or vegetation) and from the indirect impacts of project operation (e.g., herbicide spraying, changes in upstream hydrology, etc).

5. Develop and Implement a Special-Status Plant Protection and Monitoring Plan: The project owner shall develop and implement a Special-Status Plant Protection and Monitoring Plan for special-status plants occurring within the Special-Status Plant Protection Areas and on-site areas designated for impact minimization. The goal of the Special-Status Plant Protection and Monitoring Plan shall be to maintain the special-status plant species as healthy, reproductive populations that can be sustained in perpetuity. At a minimum, the Special-Status Plant Protection and Monitoring Plan shall:

   - establish baseline conditions and numbers of the plant occurrences in all protected areas (i.e., those to be excluded from the footprint and on-site areas to be protected) and success standards for protection of special-status plant occurrences;
   - provide information about microhabitat preferences and fecundity, essential pollinators, reproductive biology, and propagation and culture requirements for each special-status species;
   - describe measures (e.g., fencing, signage) to avoid direct construction and operation impacts to special-status plants within all protected areas;
   - Describe measures to avoid or minimize indirect construction and operations impacts to special-status plants within protected areas (e.g., runoff from mirror-washing, use of soil stabilizers/tackifiers, alterations of hydrology from drainage diversions, erosion/sedimentation from disturbed soils upslope, herbicide drift, the spread of non-native plants, etc.);
   - provide a monitoring schedule and plan for assessing the numbers and condition of special-status plants; and
   - Identify specific triggers for remedial action (e.g., numbers of plants dropping below a threshold.

6. Develop Special-Status Plant Remedial Action Plan: The project owner shall develop a detailed Special-Status Plant Remedial Action Plan to be implemented if special-status plants within the 476 acres of protected area

and on-site minimization “halos” fail to meet success standards described in the Special-Status Plant Protection and Monitoring Plan. The Plant Remedial Action Plan shall include specifications for ex-situ/offsite conservation of seed and other propagules, and the seed bank and other symbionts contained in the topsoil where these plants occur. The remedial measures described in the Plant Remedial Action Plan shall not substitute for plant protection or other mitigation measures. The Special-Status Plant Remedial Action Plan shall include, at a minimum:

- guidelines for seed collection (and/or other propagules) for each species;
- specifications for collecting, storing, and preserving the upper layer of soil containing seed and important soil organisms;
- detailed replacement planting or seeding program with biologically meaningful quantitative and qualitative success criteria (see Pavlik 1996), monitoring specifications, and triggers for remedial action; and
- ecological specifications for suitable planting or seeding sites.

7. Seed Collection: The project owner shall develop and implement a Seed Collection Plan to collect and store seed for Mojave milkweed, Rusby’s desert-mallow, and nine-awned pappus grass. Propagules from the Parish’s club-cholla shall be obtained and collection of propagules from desert pincushion will be attempted; however, it has not been determined if this is possible for this species. The source of seeds and/or propagules shall be from plants proposed for removal within the project footprint if possible, but this would limit the number of seeds that could be collected. The project owner shall engage the services of a qualified contractor approved by the CPM to undertake seed and/or propagule collection and storage.

8. Gas Pipeline Revegetation and Monitoring: In the natural gas pipeline construction corridor where disturbed soils will be revegetated, the topsoil excavated shall be segregated, kept intact, and protected, under conditions shown to sustain seed bank viability. Revegetation measures are described in the Closure, Revegetation, and Rehabilitation Plan and addressed separately in BIO-14. Rare plant seed collection for Rusby’s desert mallow and Mojave milkweed is not feasible on a large scale for several reasons: 1) the rarity of the plants in this area (for example, only four Rusby’s desert mallow plants occur within the project footprint), 2) the very low number of seeds produced by any individual plant, 3) plants do not appear every year, and seed may not be produced every year plants are present, as both germination and seed production are heavily dependent on the amount of rainfall, and 4) the need to maintain natural seed bank dynamics within the Rare Plant Protection Areas. If the amount and periodicity of seasonal rainfall is appropriate, seed from nine-awned

pappus grass will be collected and added to the revegetation seed mixture proposed in the Closure, Revegetation, and Rehabilitation Plan. Monitoring methods, success criteria used to evaluate the success of revegetation, and remedial measures that will be implemented should revegetation be determined unsuccessful, are also described in the Closure, Revegetation, and Rehabilitation Plan.

Verification: No less than 30 days following the publication of the Energy Commission Decision the project owner shall submit maps and design drawings depicting the location of Special-Status Plant Protection Areas within and adjacent to the project site, and shall identify the species and numbers of plants within each of the Special-Status Plant Protection Areas.

No less than 60 days following submission of the maps and design drawings depicting the location of Special-Status Plant Protection Areas, the project owner shall submit draft versions of the Special-Status Plant Protection and Monitoring Plan and the Seed Collection Plan to the CPM and BLM's Authorized Agent for review and approval, and to the CDFG for review and comment. The final plans shall be incorporated into the BRMIMP.

Within 30 days of the start of construction, the project owner shall submit a copy of the contract with the CPM-approved seed contractor.

The project owner shall identify special-status plants occurrences within 250 feet of the project fence line. A qualified botanist shall delineate the boundaries of these special status plant occurrences at least 30 days prior to the initiation of ground disturbing activities.

The Designated Biologist shall maintain written and photographic records of the tasks described above, and summaries of these records shall be submitted along with the Monthly Compliance Reports to the CPM, BLM Authorized Agent, and CDFG. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report for a period not less than 10 years for the Special-Status Plant Protection and Monitoring Plan, and the

Streambed Impact Minimization and Compensation Measures

BIO-20 The project owner shall implement the following measures to avoid, minimize and mitigate for impacts to ephemeral drainages:

Acquire Off-Site Desert Wash: The project owner shall acquire, in fee or in easement, a parcel or parcels of land that includes ephemeral washes with at least 175 acres of state jurisdictional waters. The terms and conditions of this acquisition or easement shall be as described in Condition of Certification **BIO-17** with the additional criteria that the desert wash mitigation lands: 1) include at least 175 acres of state jurisdictional waters; and 2) be

characterized by similar soil permeability, hydrological and biological functions as the impacted drainages. The desert wash mitigation lands may be included with the desert tortoise mitigation lands ONLY if the above criteria are met.

Verification:

1. Security for Implementation of Mitigation: If the Desert Wash mitigation land is to be procured separately from the Desert Tortoise mitigation land, a security in the form of an irrevocable letter of credit, pledged savings account, or other financial instrument. This Security amount shall be calculated as follows, and may be revised upon completion of a Property Analysis Record (PAR) or PAR-like analysis of the proposed compensation lands:

    a. land acquisition costs for compensation lands, calculated at $910/acre x 175 acres x 1:1 = $159,250;
    b. costs of initial habitat improvements to compensation lands, calculated at $250/acre x 175 acres x 1:1 = $43,750;

    Total security = $203,000

    c. Project Owner Acquired Lands: Security shall be paid as follows:
        i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.

        ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall either (1) provide the final installment of Security in the amount of sixty eight percent (68%) of the Total Security or (2) provide information that demonstrates to the CPM and the BLM's Authorized Officer that 175 acres of suitable Desert Wash mitigation land has been identified and secured through a legally binding option agreement or other legal instrument, whether as part of the Desert Tortoise mitigation land or separately.

        iii. Upon confirmation by the CPM and the BLM's Authorized Officer that 175 acres of land suitable for Desert Wash mitigation land has been identified and secured through a legally binding option agreement or other legal instrument, whether as part of the Desert Tortoise mitigation land or separately, the project owner shall be entitled to either a refund of monies paid pursuant to subsections (i) and (ii) above.

d. Third Party Acquired Lands: Security shall be paid as follows:
   i. At least fifteen days prior to commencement of construction of Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2, the project owner shall also provide the initial installment of Security in the amount of thirty two percent (32%) of the Total Security. This security will cover the percentage of land disturbed by fencing Ivanpah 1, the Construction Logistics Area and the access road and power block to Ivanpah 2.
   ii. At least fifteen days prior to commencement of construction of the remainder of Ivanpah 2 and Ivanpah 3, the project shall provide the final installment of Security in the amount of sixty eight percent (68% of the Total Security).

2. Land Title Transfer for Acquired Lands If the project owner elects to acquire 175 acres of land suitable as desert wash separately from compensation lands to be used for mitigation of desert tortoise, and regardless whether the project owner elects to or allows a third-party to acquire such lands, the project owner shall comply with the following conditions relating to acquisition of the Energy Commission Complementary Mitigation compensation lands after the CDFG and the CPM, in consultation with BLM and the USFWS, have approved the proposed compensation lands and received Security as applicable and as described above.

   a. Preliminary Report: The project owner, or approved third party, shall provide a recent preliminary title report, initial hazardous materials survey report, biological analysis, and other necessary documents for the proposed 175 acres. All documents conveying or conserving compensation lands and all conditions of title/easement are subject to a field review and approval by CDFG and the CPM, in consultation with BLM, CDFG and the USFWS, California Department of General Services and, if applicable, the Fish and Game Commission and/or the Wildlife Conservation Board.

   b. Title/Conveyance: The project owner shall transfer fee title or a conservation easement to the 175 acres of compensation lands to CDFG under terms approved by CDFGCPM. Alternatively, a non-profit organization qualified to manage compensation lands (pursuant to California Government Code section 65965) and approved by CDFG and the CPM in consultation with CDFG may hold fee title or a conservation easement over the habitat mitigation lands. If the approved non-profit organization holds title, a conservation easement shall be recorded in favor of CDFG in a form approved by CDFGCPM. If the approved non-profit holds a conservation easement, CDFG shall be named a third party beneficiary. If a Security is provided, the project owner or an approved

third party shall complete the proposed compensation lands acquisition within 18 months of the start of project ground-disturbing activities.

3. Preparation of Management Plan: The project owner shall submit to Energy Commission CPM a draft Management Plan that reflects site-specific enhancement measures for the drainages on the acquired compensation lands. The objective of the Management Plan shall be to provide initial enhancement of the wildlife value of the drainages, and may include enhancement actions such as weed control, fencing to exclude livestock,. No later than 90 days after aquisition of the compensation lands the project owner shall submit a final Management Plan for review and approval to the CPM and CDFG.

4. Right of Access and Review for Compliance Monitoring: The CPM reserves the right to enter the project site or allow CDFG to enter the project site at any time to ensure compliance with these conditions. The project owner herein grants to the CPM and to CDFG employees and/or their representatives the right to enter the project site at any time, to ensure compliance with the terms and conditions and/or to determine the impacts of storm events, maintenance activities, or other actions that might affect the restoration and revegetation efforts. The CPM and CDFG may, at the CPM's discretion, review relevant documents maintained by the operator, interview the operator's employees and agents, inspect the work site consistent with project safety procedures, and take other actions to assess compliance with or effectiveness of mitigation measures.

5. Notification: The project owner shall notify the CPM and CDFG, in writing, at least five days prior to initiation of project activities in jurisdictional areas as noted and at least five days prior to completion of project activities in jurisdictional areas. The project owner shall notify the CPM and CDFG of any change of conditions to the project, the jurisdictional impacts, or the mitigation efforts, if the conditions at the site of a proposed project change in a manner which changes risk to biological resources that may be substantially adversely affected by the proposed project. The notifying report shall be provided to the CPM no later than seven days after the change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a project; the biological and physical characteristics of a project area; or the laws or regulations pertinent to the project as defined below. A copy of the notifying change of conditions report shall be included in the annual reports.

    a. Biological Conditions: a change in biological conditions includes, but is not limited to, the following: 1) the presence of biological resources within or adjacent to the project area, whether native or non-native, not previously known to occur in the area; or 2) the presence of biological resources within or adjacent to the project area, whether native or non-native, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.

b. Physical Conditions: a change in physical conditions includes, but is not limited to, the following: 1) a change in the morphology of a river, stream, or lake, such as the lowering of a bed or scouring of a bank, or changes in stream form and configuration caused by storm events; 2) the movement of a river or stream channel to a different location; 3) a reduction of or other change in vegetation on the bed, channel, or bank of a drainage, or 4) changes to the hydrologic regime such as fluctuations in the timing or volume of water flows in a river or stream.

c. Legal Conditions: a change in legal conditions includes, but is not limited to, a change in Regulations, Statutory Law, a Judicial or Court decision, or the listing of a species, the status of which has changed to endangered, rare, or threatened, as defined in section 15380 of Title 14 of the California Code of Regulations.

6. Code of Regulations: The project owner shall provide a copy of the Streambed Impact Minimization and Compensation Measures from the Energy Commission Decision to all contractors, subcontractors, and the applicant's project supervisors. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any CDFG personnel or personnel from another agency upon demand. The CPM reserves the right to issue a stop work order or allow CDFG to issue a stop work order after giving notice to the project owner, the CPM, if the CPM in consultation with CDFG, determines that the project owner has breached any of the terms or conditions or for other reasons, including but not limited to the following:

   a. The information provided by the applicant regarding streambed alteration is incomplete or inaccurate;

   b. New information becomes available that was not known to it in preparing the terms and conditions;

   c. The project or project activities as described in the Final Staff Assessment have changed; or

   d. The conditions affecting biological resources changed or the CPM, in consultation with CDFG, determines that project activities will result in a substantial adverse effect on the environment.

7. Best Management Practices: The project owner shall also comply with the following conditions:

   a. The project owner shall minimize road building, construction activities and vegetation clearing within ephemeral drainages to the extent feasible.

   b. The project owner shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter

ephemeral drainages or be placed in locations that may be subjected to high storm flows.

c. The project owner shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws, and it shall be the responsibility of the project owner to ensure compliance.

d. Spoil sites shall not be located within drainages or locations that may be subjected to high storm flows, where spoil shall be washed back into a drainage.

e. Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from project-related activities, shall be prevented from contaminating the soil and/or entering waters of the state. These materials, placed within or where they may enter a drainage or Ivanpah Dry Lake, by project owner or any party working under contract or with the permission of the project owner shall be removed immediately.

f. No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, oil or petroleum products or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the state.

g. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any drainage.

h. No equipment maintenance shall occur within 150 feet of any ephemeral drainage where petroleum products or other pollutants from the equipment may enter these areas under any flow.

8. No fewer than 30 days prior to the start of work potentially affecting waters of the state, the project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that the above best management practices will be implemented and provide a discussion of work in waters of the state in Compliance Reports for the duration of the project.

Noise Restrictions

NOISE-4

The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that operation of the project will not cause noise complaints from residents of Primm, Nevada or from the operator of the Primm Valley Golf Course. If legitimate project-related noise complaints are received

from residents of Primm, the project owner shall perform a noise survey to demonstrate that noise levels due to plant operation do not exceed an average of 45 dBA Leq measured at the nearest residence of the community of Primm, Nevada. If legitimate project-related noise complaints are received from the operator of the Primm Valley Golf Course, the project owner shall perform a noise survey to demonstrate that noise levels due to plant operation do not exceed an average of 55 dBA Leq measured at the nearest boundary of the golf course. No new project components creating pure-tone noises will be added to the project unless they are balanced by other plant features. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.

A. The measurement of power plant noise for the purposes of demonstrating compliance with this condition of certification may alternatively be made at a location, acceptable to BLM's Authorized Officer and the CPM, closer to the plant (e.g., 400 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution at the affected location. The character of the plant noise shall be evaluated at the affected residential locations to determine the presence of pure tones or other dominant sources of plant noise.

Verification:

The survey shall take place within 30 days of the receipt of the noise complaint, unless the complaint has been resolved to the complaining party's satisfaction. Within 15 days after completing the survey, the project owner shall submit a summary report of the survey to BLM's Authorized Officer and the CPM. Included in the survey report will be a description of additional mitigation measures (if any) necessary to achieve compliance with the above-listed noise limit and a schedule, subject to BLM Authorized Officer and CPM approval, for implementing these measures. When these measures are in place, the project owner shall repeat the noise survey.
Within 15 days of completion of the new survey, the project owner shall submit to BLM's Authorized Officer and the CPM a summary report of the new noise survey, performed as described above and showing compliance with this condition

Steam Blow Restrictions

NOISE-7

If a high-pressure steam blow is employed, the project owner shall equip steam blow piping with a temporary silencer or take other effective measures that quiet the noise of steam blows to no greater than 60 dBA measured at the Primm Valley Golf Club and no greater than 55 dBA measured at any affected residential locations in Primm, NV. The project owner shall conduct high-pressure steam blows only during the hours of 7:00 a.m. to 7:00 p.m.

If a low-pressure continuous steam blow is employed, the project owner shall limit the noise of steam blows to no greater than 45 dBA measured at any affected residential location in Primm, NV. In lieu of specifying the level of silencing above, the project owner may alternatively submit an analysis to the BLM's Authorized Officer and the CPM that documents that during either high or low pressure steam blows, steam blow noise levels would not exceed 60 dBA at the Primm Valley Golf Club (daytime), or 55 dBA (daytime)/45 dBA (nighttime) at the nearest residential location in Primm.

Verification:

At least fifteen (15) days prior to the first high pressure steam blow, the project owner shall submit to BLM's Authorized Officer and the CPM drawings or other information describing the temporary steam blow silencer or other noise attenuating measures to be taken, the noise levels expected and a description of the steam blow schedule.

At least fifteen (15) days prior to any low-pressure continuous steam blow, the project owner shall submit to BLM's Authorized Officer and the CPM drawings or other information describing the process, including the noise levels expected and the projected time schedule for execution of the process.

REC-1: Prior to the start of commercial operations of the first ISEGS power plant to be constructed, the project owner shall prepare plans for a Solar / Ecological Interpretive Center to be developed to in the vicinity of the ISEGS project. The project owner in consultation with the County shall propose a location on-site or off-site that provides a vantage point to observe as many features as is possible of the ISEGS project without compromising safety or security. The project owner's plans for the Solar / Ecological Interpretive Center may be coordinated with San Bernardino County.

Verification:

The Solar / Ecological Interpretive Center shall include or make accessible to the public the following features:

1. surfaced public parking
2. information kiosks describing ISEGS solar energy technology;
3. picnic area with tables,
4. garbage cans;
5. interpretive signs identifying local landmarks and ecological features;
6. a contained restroom facility (or reasonable access to a facility with flush toilets and sinks should the Solar / Ecological Interpretive Center be constructed adjacent to another facility having a restroom);

At least 30 days prior to commercial operation of the first power plant of the ISEGS development, the project owner shall submit plans to BLM's Authorized Officer and the CPM for review and approval for a Solar / Ecological Interpretive Center to be developed in the ISEGS vicinity in coordination with San Bernardino County.

Within 6 months of approval of the proposed Solar /Ecological Interpretive Center plans (1) by the Commission and the BLM, for an on-site Center, or (2) by the County of San Bernardino, for an off-site Center, being final and no longer subject to administrative or judicial review, the project owner shall commence construction of the Center and shall to the extent feasible complete construction within one year following the start of construction if the Center is located off of the ISEGS site. If located on-site, then construction of the Center shall follow the completion of all ISEGS construction. Upon completion the project owner shall submit notice to BLM and the Energy Commission that it has completed construction of the Solar / Ecological Interpretive Center.

In each Annual Compliance Report, the project owner shall provide a summary of estimated public use of the Solar / Ecological Interpretive Center and summarize any issues associated with operating and maintenance activities.

SOIL&WATER-3:

Pre-Well Installation. The project owner shall construct and operate up to two onsite groundwater wells that produce water from the IVGB. The project owner shall ensure that the wells are completed in accordance with all applicable state and local water well construction permits and requirements, including the San Bernardino County's Desert Groundwater Management Ordinance. Prior to initiation of well construction activities, the project owner shall submit for review and comment a well construction packet to the County of San Bernardino, in accordance with the County of San Bernardino Code Title 2, Division 3, Chapter 6, Article 5, containing the all documentation, plans, and fees normally required for the county's well permit, with copies to both BLM's Authorized Officer and the CPM. The project shall not construct a well or extract and use groundwater until both BLM's Authorized Officer and the CPM provides approval to construct and operate the well.

Post-Well Installation. The project owner shall provide documentation to both BLM's Authorized Officer and the CPM that the well has been properly completed. In accordance with California's Water Code section 13754, the driller of the well shall submit to the DWR a Well Completion Report for each well installed.

Verification:

The project owner shall ensure the Well Completion Reports are submitted and shall ensure compliance with all county water well standards and requirements for the life of the wells. The project owner shall do all of the following:

1. No later than 90 days prior to the construction of the onsite groundwater wells, the project owner shall submit a Groundwater Monitoring and Management Plan to the County of San Bernardino for review and comment (see Condition of Certification **SOIL&WATER- 6**).

2. No later than sixty (60) days prior to the construction of the onsite groundwater wells, the project owner shall submit to both BLM's Authorized Officer and the CPM a copy of the water well construction packet submitted to the County of San Bernardino for review and comment.

3. No later than thirty (30) days prior to the construction of the onsite water supply wells, the project owner shall submit a copy of any written comments received from the County of San Bernardino indicating whether the proposed well construction activities comply with all county well requirements and meet the requirements established by the county's water well permit program.

4. No later than sixty (60) days after installation of each well at the project site, the project owner shall provide to both BLM's Authorized Officer and the CPM copies of the Well Completion Reports submitted to the DWR by the well driller . The project owner shall submit to the CPM, together with the Well Completion Report, a copy of well drilling logs, water quality analyses, and any inspection reports.

5. During well construction and for the operational life of the well, the project owner shall submit two (2) copies each to BLM's Authorized Officer and the CPM for review and approval any proposed well construction or operation changes.

6. The project owner shall provide BLM's authorized officer and the CPM with (2) two copies each of all monitoring and other reports required for compliance with the County of San Bernardino water well standards and operation requirements.

7. No later than fifteen (15) days after completion of the onsite water supply wells, the project owner shall submit documentation to BLM's Authorized Officer and the CPM confirming that well drilling activities were conducted in compliance with Title 23, California Code of Regulations, Chapter 15, Discharges of Hazardous Wastes to Land, (23 CCR, sections 2510 et seq.) requirements and that any onsite drilling sumps used for project drilling activities were removed in compliance with 23 CCR section 2511(c).

TRANS-5

The project owner shall ensure that each power tower is marked and lighted according to the recommendations included in the FAA aeronautical study performed for each tower. Additionally, the project owner shall submit FAA Form 7460-2 Part II, Notice of Actual Construction or Alteration, to the FAA within 5 days of completion of construction of the tower to its greatest height. The project owner shall provide evidence of compliance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting by submitting a copy of Form 7460-2 to BLM's Authorized Officer and the CPM for review and approval upon completion of construction or each power tower.

Verification:

Within 5 days of completion of construction of each of the seven power towers, the project owner shall submit the above referenced evidence to BLM's Authorized Officer and the CPM for review and approval.

EXHIBIT 4

LETTER FROM

APPLICANT TO HEARING OFFICER KRAMER

RE: CLERICAL ERRORS IN PMPD CONDITION LANGUAGE FOR THE IVANPAH SOLAR ELECTRIC GENERATING SYSTEM (07-AFC-5)

(AUGUST 26, 2010)

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August 26, 2010

Paul Kramer
California Energy Commission
Systems Assessment and Facilities Siting Division
1516 9th Street
Sacramento, CA 95814-5504

RE: Clerical Errors In PMPD Condition Language for the Ivanpah Solar Electric Generating System (07-AFC-5)

Dear Mr. Kramer:

Per the discussion at the August 24, 2010 Committee Conference and Evidentiary Hearing for the Ivanpah Solar Electric Generating System Project, please find attached a list of certain conditions in the *Presiding Member's Proposed Decision* ("PMPD") that Applicant believes contain clerical errors (Attachment 1). Also attached for the Commission's consideration is condition language that Applicant believes reflects the correct version of the condition language (Attachment 2), as set forth in Staff's March 29, 2010 filing, *Energy Commission Staff's Compilation of Edits to Recommended Conditions of Certification- Ivanpah Solar Electric Generating System (07-AFC-05)*. These documents are exactly the same as those distributed to the Commission and other parties at the August 24, 2010 Committee Conference and Evidentiary Hearing, with the exception of additional explanatory footnotes regarding BIO-9 and BIO-12.

Please contact me if you have any questions.

Sincerely,

Samantha G. Pottenger

Attorneys for Ivanpah Solar Project

Attachment 1

Ivanpah Solar Electric Generating System
07-AFC-5

PMPD Condition Language
Staff and Applicant Agreement
Table of Clerical Errors

Ivanpah Solar Electric Generating System
PMPD Condition Language
Staff and Applicant Agreement
Table of Clerical Errors

Condition	PMPD Version	Comments
AQ-SC5	FSA	Does not adopt the revised 3/29/10 version agreed to by Staff and Applicant.
AQ-SC6	FSA	Does not adopt the revised 3/29/10 version agreed to by Staff and Applicant.
BIO-6	FSA	Does not adopt the revised 3/29/10 version agreed to by Staff and Applicant.
BIO-9	FSA	Does not adopt the revised 3/29/10 version agreed to by Staff and Applicant.[1]
BIO-12	FSA	Does not adopt the revised 3/29/10 version agreed to by Staff and Applicant.[2]
BIO-13	FSA	Does not adopt the revised 3/29/10 version agreed to by Staff and Applicant.
MECH-3	---	Missing the "verification" designation.
SOIL&WATER- 3	3/29/10 version, with 180 days, instead of 90.	Requires a Groundwater Monitoring and Management Plan to be submitted to the County 180 days prior to the construction of the onsite groundwater wells, instead of 90 days.[3]
SOIL &WATER- 7	---	Deleted; inadvertent omission from the PMPD? This condition is referenced in p. 12 of Soils and Water section and the Findings of Fact (p.16), but not included in the list of COCs.
TRANS-3	---	Appears to have a typo with double verification sections.
TRANS-5	---	Deleted; inadvertent omission from the PMPD? This condition is referenced on p. 10 of the AQ section, but not included in the list of COCs.
VIS-1	FSA	Does not adopt the revised version agreed to by Staff and Applicant.
VIS-3	FSA	PMPD retains this condition despite Staff and Applicant agreement that this condition should be deleted.
VIS-4	FSA	Does not adopt the revised 3/29/10 version agreed to by Staff and Applicant.

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[1] The language proposed in Attachment 2 for BIO-9 reflects the language agreed to by Staff and Applicant in Staff's March 29th, 2010 filing, *Energy Commission Staff's Compilation of Edits to Recommended Conditions of Certification- Ivanpah Solar Electric Generating System (07-AFC-05)*, with the exception of the verification language, which has been revised to clarify the approving authorities in the verification so as to be consistent with the condition language, as proposed by Staff during the August 24th hearing.

[2] Staff and Applicant reached an agreement regarding the language of BIO-12, which is reflected in Staff's March 29th, 2010 filing. However, during the August 24, 2010 Committee Conference and Evidentiary Hearing, Staff proposed additional language recommending a fee of $105 dollars per acre of fees for raven management. As the legal basis for this fee was not discussed during evidentiary hearings, or even identified to Applicant, Applicant supports adoption of the 3/29/10 version agreed to by Staff and Applicant.

3 Although Energy Commission Staff's Compilation of Edits to Recommended Conditions of Certification- Ivanpah Solar Electric Generating System (07-AFC-05), March 29, 2010 also uses 180 days, Applicant believes that Staff and Applicant had come to an agreement regarding 90 days. Applicant is reviewing its documents to ensure that this is correct.

Attachment 2

Ivanpah Solar Electric Generating System
07-AFC-5

PMPD Condition Language
Staff and Applicant Agreement

Ivanpah Solar Electric Generating System
PMPD Condition Language
Staff and Applicant Agreement

AQ-SC5

Diesel-Fueled Engine Control: The AQCMM shall submit to the CPM in the Monthly Compliance Report a construction mitigation report that demonstrates compliance with the Air Quality Construction Mitigation Plan (AQCMP) mitigation measures for purposes of controlling diesel construction-related emissions. Any deviation from the AQCMP mitigation measures shall require prior CPM notification and approval.

Verification:

The AQCMM shall include in the Monthly Compliance Report (**COMPLIANCE-6**) the following to demonstrate control of diesel construction-related emissions:

A. A summary of all actions taken to maintain compliance with this condition;

B. A list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained; and

C. Any other documentation deemed necessary by the CPM, and the AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.

The following off-road diesel construction equipment mitigation measures shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by **AQ-SC2**.

a. All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM showing that the engine meets the conditions set forth herein.

b. All construction diesel engines with a rating of 50 hp or higher shall meet, at a minimum, the Tier 3 California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless a good faith effort to the satisfaction of the CPM that is certified by the on-site AQCMM demonstrates that such engine is not available for a particular item of equipment. In the event that a Tier 3 engine is not available for any offroad equipment larger than 100 hp, that equipment shall be equipped with a Tier 2 engine, or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than Tier 2 levels unless certified by engine manufacturers or the on-site AQCMM that the use of such devices

is not practical for specific engine types. For purposes of this condition, the use of such devices is “not practical” for the following, as well as other, reasons.

1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 2 equivalent emission levels and the highest level of available control using retrofit or Tier 1 engines is being used for the engine in question; or

2. The construction equipment is intended to be on site for 5 days or less.

3. The CPM may grant relief from this requirement if the AQCMM can demonstrate a good faith effort to comply with this requirement and that compliance is not practical.

c. The use of a retrofit control device may be terminated immediately, provided that the CPM is informed within 10 working days of the termination and that a replacement for the equipment item in question meeting the controls required in item “b” occurs within 10 days of termination of the use, if the equipment would be needed to continue working at this site for more than 15 days after the use of the retrofit control device is terminated, if one of the following conditions exists :

1. The use of the retrofit control device is excessively reducing the normal availability of the construction equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in back pressure.
2. The retrofit control device is causing or is reasonably expected to cause engine damage.
3. The retrofit control device is causing or is reasonably expected to cause a substantial risk to workers or the public.
4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination.

d. All heavy earth-moving equipment and heavy duty construction-related trucks with engines meeting the requirements of (b) above shall be properly maintained and the engines tuned to the engine manufacturer’s specifications.

e. All diesel heavy construction equipment shall not idle for more than five minutes. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement.

f. Construction equipment will employ electric motors when feasible.

AQ-SC6

The project owner, when obtaining dedicated on-road or off-road vehicles for mirror washing activities and other facility maintenance activities, shall only obtain new model year vehicles that meet California on-road vehicle emission standards or appropriate U.S.EPA/California off-road engine emission standards for the model year when obtained.

Verification:

At least 60 days prior to the start commercial operation, the project owner shall submit to the CPM a copy of the plan that identifies the size and type of the on-site vehicle and equipment fleet and the vehicle and equipment purchase orders and contracts and/or purchase schedule. The plan shall be updated every other year and submitted in the Annual Compliance Report (**COMPLIANCE-7**).

BIO-6

The project owner shall develop and implement an Ivanpah SEGS-specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP from BLM's Authorized Officer and the CPM. The USFWS and CDFG shall also be provided a copy of the WEAP for review and comment. The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure. The WEAP shall:

1. Be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting written material and electronic media, including photographs of protected species, is made available to all participants.

2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, and explain the reasons for protecting these resources; provide information to participants that Gila monsters are venomous and should not be handled, and that no snakes, reptiles, or other wildlife shall be harmed;

3. Place special emphasis on desert tortoise, including information on physical characteristics, distribution, behavior, ecology, sensitivity to human activities, legal protection, penalties for violations, reporting requirements, and protection measures;

4. Include a discussion of fire prevention measures to be implemented by workers during project activities; request workers dispose of cigarettes and cigars appropriately and not leave them on the ground or buried;

5. Present the meaning of various temporary and permanent habitat protection measures;

6. Identify whom to contact if there are further comments and questions about the material discussed in the program; and

7. Include a training acknowledgment form to be signed by each worker indicating that they received training and shall abide by the guidelines. The specific program can be administered by a competent individual(s) acceptable to the Designated Biologist.

Verification:

At least 60 days prior to the start of any project-related site disturbance activities, the project owner shall provide to BLM's Authorized Officer and the CPM a copy of the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.

The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date. At least 10 days prior to site and related facilities mobilization, the project owner shall submit two copies of the BLM- and CPM-approved final WEAP.

Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least six months after the start of commercial operation.

Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to BLM's Authorized Officer and the CPM and upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.

During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.

BIO-9

The project owner shall develop and implement a final Desert Tortoise Relocation/Translocation Plan (Plan) that is consistent with current USFWS approved guidelines, and meets the approval of BLM's Authorized Officer, USFWS and the CPM, in consultation with CDFG. The final Plan shall be based on the draft Desert Tortoise Relocation/Translocation Plan prepared by the applicant dated May 2009 and shall include all revisions deemed necessary by BLM's Authorized Officer, USFWS, and the CPM, in consultation with CDFG.

Verification:

Within 60 days of publication of the Energy Commission Decision the project owner shall provide BLM's Authorized Officer and the CPM with the final version of a Desert Tortoise Relocation/Translocation Plan that has been reviewed and approved by BLM, USFWS, and the CPM in consultation with CDFG. BLM's Authorized Officer and the CPM will determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved translocation must be made only after consultation with BLM's Authorized Officer, USFWS and the CPM, in consultation with CDFG.

Within 30 days after initiation of translocation activities, the Designated Biologist shall provide to BLM's Authorized Officer and the CPM for review and approval, a written report identifying which items of the Plan have been completed, and a summary of all modifications to measures made during implementation of the Plan.

BIO-12

The project owner shall implement a Raven Management Plan that is consistent with the most current USFWS-approved raven management guidelines, and which meets the approval of USFWS, BLM's Authorized Officer, and the CPM in consultation with CDFG. The draft Raven Management Plan submitted by the applicant (CH2M Hill 2008f) shall provide the basis for the final plan, subject to review and revisions from USFWS, CDFG, BLM's Authorized Officer and the CPM in consultation with CDFG.

Verification:

At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide BLM's Authorized Officer, the CPM, USFWS, and CDFG with the final version of a Raven Management Plan that has been reviewed by USFWS, CDFG, BLM, and the Energy Commission staff. The CPM and BLM's Authorized Officer will determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved Raven Management Plan shall be made only after approval by BLM's Authorized Officer and the CPM, in consultation with USFWS and CDFG.

Within 60 days after completion of project construction, the project owner shall provide to the CPM for review and approval, a written report identifying which items of the Raven Management Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.

BIO-13

The project owner shall implement a Weed Management Plan that meets the approval of BLM and the CPM. The draft Weed Management Plan submitted by the applicant (CH2M Hill 2008e) shall provide the basis for the final plan, subject to review and approval from BLM and the CPM, in consultation with USFWS, and CDFG. In addition to describing weed eradication and control methods, and a reporting plan for weed management during and after construction, the final Weed Management Plan shall include at least the following Best Management Practices to prevent the spread and propagation of noxious weeds:

1. Limit the size of any vegetation and/or ground disturbance to the absolute minimum, and limit ingress and egress to defined routes.

2. Maintain vehicle wash and inspection stations and closely monitor the types of materials brought onto the site.

3. Reestablish vegetation quickly on disturbed sites.

4. Monitoring and rapid implementation of control measures to ensure early detection and eradication for weed invasions.

5. Use only weed-free straw or hay bales used for sediment barrier installations, and weed-free seed.

6. Reclamation and revegetation shall occur on all temporarily disturbed areas, including pipelines, transmission lines, and staging areas.

Verification:

At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide BLM's Authorized Officer and the CPM with the final version of a Weed Management Plan. BLM's Authorized Officer and the CPM will determine the plan's acceptability within 15 days of receipt of the final plan. All modifications to the approved Weed Control Plan must be made only after consultation with the CPM and BLM's Authorized Officer, in consultation with USFWS, and CDFG.

Within 30 days after completion of project construction, the project owner shall provide to BLM's Authorized Officer and the CPM for review and approval, a written report identifying which items of the Weed Management Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.

MECH-3

The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations, and quality control procedures for any heating, ventilating, air conditioning (HVAC), or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets.

The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval of that construction. The final plans, specifications, and calculations shall include approved criteria, assumptions, and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings, and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications, and calculations conform with the applicable LORS (2007 CBC, Appendix Chapter 1, section 109.3.7, Energy Efficiency Inspections; section 106.3.4, Design Professionals in Responsible Charge).

Verification:

At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to BLM's Authorized Officer and the CPM.

SOIL&WATER-3:

Pre-Well Installation. The project owner shall construct and operate up to two onsite groundwater wells that produce water from the IVGB. The project owner shall ensure that the wells are completed in accordance with all applicable state and local water well construction permits and requirements, including the San Bernardino County's Desert Groundwater Management Ordinance. Prior to initiation of well construction activities, the project owner shall submit for review and comment a well construction packet to the County of San Bernardino, in

accordance with the County of San Bernardino Code Title 2, Division 3, Chapter 6, Article 5, containing the all documentation, plans, and fees normally required for the county's well permit, with copies to both BLM's Authorized Officer and the CPM. The project shall not construct a well or extract and use groundwater until both BLM's Authorized Officer and the CPM provides approval to construct and operate the well.

Post-Well Installation. The project owner shall provide documentation to both BLM's Authorized Officer and the CPM that the well has been properly completed. In accordance with California's Water Code section 13754, the driller of the well shall submit to the DWR a Well Completion Report for each well installed.

Verification:

The project owner shall ensure the Well Completion Reports are submitted and shall ensure compliance with all county water well standards and requirements for the life of the wells. The project owner shall do all of the following:

1. No later than 90 days prior to the construction of the onsite groundwater wells, the project owner shall submit a Groundwater Monitoring and Management Plan to the County of San Bernardino for review and comment (see Condition of Certification **SOIL&WATER- 6**).

2. No later than sixty (60) days prior to the construction of the onsite groundwater wells, the project owner shall submit to both BLM's Authorized Officer and the CPM a copy of the water well construction packet submitted to the County of San Bernardino for review and comment.

3. No later than thirty (30) days prior to the construction of the onsite water supply wells, the project owner shall submit a copy of any written comments received from the County of San Bernardino indicating whether the proposed well construction activities comply with all county well requirements and meet the requirements established by the county's water well permit program.

4. No later than sixty (60) days after installation of each well at the project site, the project owner shall provide to both BLM's Authorized Officer and the CPM copies of the Well Completion Reports submitted to the DWR by the well driller . The project owner shall submit to the CPM, together with the Well Completion Report, a copy of well drilling logs, water quality analyses, and any inspection reports.

5. During well construction and for the operational life of the well, the project owner shall submit two (2) copies each to BLM's Authorized Officer and the CPM for review and approval any proposed well construction or operation changes.

6. The project owner shall provide BLM's authorized officer and the CPM with (2) two copies each of all monitoring and other reports required for compliance with the County of San Bernardino water well standards and operation requirements.

7. No later than fifteen (15) days after completion of the onsite water supply wells, the project owner shall submit documentation to BLM's Authorized Officer and the CPM confirming that well drilling activities were conducted in compliance with Title 23, California Code of Regulations, Chapter 15, Discharges of Hazardous Wastes to Land, (23 CCR, sections 2510 et seq.) requirements and that any onsite drilling sumps used for project drilling activities were removed in compliance with 23 CCR section 2511(c).

SOIL&WATER-7:

The project owner shall recycle and reuse all process wastewater streams to the extent practicable. Prior to transport and disposal of any facility operation wastewaters that are not suitable for treatment and reuse onsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project manager shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements).

Verification:

Prior to transport and disposal of any facility operation wastewaters that are not suitable for treatment and reuse onsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project manager shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements).

TRANS-3

The project owner shall prepare a Heliostat Positioning Plan that would avoid potential for human health and safety hazards from solar radiation exposure.

Verification:

Within 90 days before commercial operation of any of the three ISEGS power plants, the project owner shall submit the Heliostat Positioning Plan to BLM's Authorized Officer and the CPM for review and approval. The project owner shall also submit the plan to

CalTrans, FAA, and the Clark County Department of Aviation for review and comment and forward any comments received to BLM's Authorized Officer and the CPM. The Heliostat Positioning Plan shall accomplish the following:

1. Identify the heliostat movements and positions (including reasonably possible malfunctions) that could result in potential exposure of these observers at various locations including in aircraft, motorists, pedestrians and hikers in the Clark Mountains to reflected solar radiation from heliostats;

2. Describe within the HPP how programmed heliostat operation would avoid potential for human health and safety hazards at locations of observers as attributable to momentary solar radiation exposure greater than the Maximum Permissible Exposure of 10 kw/m^2 (for a period of 0.25 second or less);

3. Prepare a monitoring plan that would: a) obtain field measurements in response to legitimate complaints; b) verify that the Heliostat Positioning Plan would avoid potential for human health and safety hazards including temporary or permanent blindness at locations of observers; and c) provide requirements and procedures to document, investigate and resolve legitimate complaints regarding glare.

4. The monitoring plan should be coordinated with the FAA, U.S. Department of the Navy, CalTrans, CHP, and Clark County Department of Aviation in relation to the proposed Southern Nevada Supplemental Airport and be updated on an annual basis for the first 5 years, and at 2-year intervals thereafter for the life of the project.

TRANS-5

The project owner shall ensure that each power tower is marked and lighted according to the recommendations included in the FAA aeronautical study performed for each tower. Additionally, the project owner shall submit FAA Form 7460-2 Part II, Notice of Actual Construction or Alteration, to the FAA within 5 days of completion of construction of the tower to its greatest height. The project owner shall provide evidence of compliance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting by submitting a copy of Form 7460-2 to BLM's Authorized Officer and the CPM for review and approval upon completion of construction or each power tower.

Verification:

Within 5 days of completion of construction of each of the seven power towers, the project owner shall submit the above referenced evidence to BLM's Authorized Officer and the CPM for review and approval.

VIS-1

The project owner shall treat the surfaces of all project structures and buildings visible to the public, other than surfaces that are included to direct or reflect sunlight, such that a) their colors minimize visual intrusion and contrast by blending with the existing tan and brown color of the surrounding landscape; and b) their colors and finishes do not create excessive glare. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive.

The project owner shall submit for CPM review and approval, a specific Surface Treatment Plan that will satisfy these requirements.

Verification:

At least 90 days prior to specifying to the vendor the colors and finishes for each set of structures or buildings that are surface treated during manufacture, the project owner shall submit the proposed treatment plan to BLM's Authorized Officer and the CPM for review and approval and simultaneously to San Bernardino County for review and comment. If BLM's Authorized Officer and the CPM determine that the plan requires revision, the project owner shall provide to BLM's Authorized Officer and the CPM a plan with the specified revision(s) for review and approval by BLM's Authorized Officer and the CPM before any treatment is applied. Any modifications to the treatment plan must be submitted to BLM's Authorized Officer and the CPM for review and approval. BLM's Authorized Officer and the CPM shall review and approve the Surface Treatment Plan or identify any material deficiencies within thirty (30) days of receipt.

The treatment plan shall include:

A. A description of the overall rationale for the proposed surface treatment, including the selection of the proposed color(s) and finishes;

B. A list of each major project structure, building, tank, pipe, and wall; the transmission line towers and/or poles; and fencing, specifying the color(s) and finish proposed for each. Colors must be identified by vendor, name, and number; or according to a universal designation system;

C. One set of color brochures or color chips showing each proposed color and finish;

D. A specific schedule for completion of the treatment; and

E. A procedure to ensure proper treatment maintenance for the life of the project.

The project owner shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated in the field, until the project owner receives notification of approval of the treatment plan by BLM's Authorized Officer and the CPM. Subsequent modifications to the treatment plan are prohibited without BLM's Authorized Officer and CPM approval.

Prior to the start of commercial operation, the project owner shall notify BLM's Authorized Officer and the CPM that surface treatment of all listed structures and buildings has been completed and they are ready for inspection and shall submit to each one set of electronic color photographs from the same key observation points identified in (d) above. The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify a): the condition of the surfaces of all structures and buildings at the end of the reporting year; b) maintenance activities that occurred during the reporting year; and c) the schedule of maintenance activities for the next year.

VIS-4

To the extent feasible, consistent with safety and security considerations, the project owner shall design and install all permanent exterior lighting and all temporary construction lighting such that a) lamps and reflectors are not visible from beyond the project site, including any off-site security buffer areas; b) lighting does not cause excessive reflected glare; c) direct lighting does not illuminate the nighttime sky, except for required FAA aircraft safety lighting; d) illumination of the project and its immediate vicinity is minimized, and e) the plan complies with local policies and ordinances. The project owner shall submit to BLM's Authorized Officer and the CPM for review and approval and simultaneously to the County of San Bernardino for review and comment a lighting mitigation plan.

Verification:

At least 90 days prior to ordering any permanent exterior lighting or temporary construction lighting, the project owner shall contact BLM's Authorized Officer and the CPM to discuss the documentation required in the lighting mitigation plan. At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to BLM's Authorized Officer and the CPM for review and approval and simultaneously to the County of San Bernardino for review and comment a lighting mitigation plan. If BLM's Authorized Officer and the CPM determine that the plan requires revision, the project owner shall provide to BLM's Authorized Officer and the CPM a revised plan for

review and approval by BLM's Authorized Officer and the CPM. BLM's Authorized Officer and the CPM shall approve or identify any material deficiencies in the Lighting Plan within 30 days following receipt of the Plan.

The Lighting Plan shall include the following:

A. Location and direction of light fixtures shall take the lighting mitigation requirements into account;

B. Lighting design shall consider setbacks of project features from the site boundary to aid in satisfying the lighting mitigation requirements;

C. Lighting shall incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated;

D. Light fixtures that are visible from beyond the project boundary shall have cutoff angles that are sufficient to prevent lamps and reflectors from being visible beyond the project boundary, except where necessary for security;

E. All lighting shall be of minimum necessary brightness consistent with operational safety and security; and

F. Lights in high illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied.

The project owner shall not order any exterior lighting until receiving BLM Authorized Officer and CPM approval of the lighting mitigation plan.

Prior to commercial operation, the project owner shall notify BLM's Authorized Officer and the CPM that the lighting has been completed and is ready for inspection. If after inspection, BLM's Authorized Officer and the CPM notify the project owner that modifications to the lighting are needed, within 30 days of receiving that notification the project owner shall implement the modifications and notify BLM's Authorized Officer and the CPM that the modifications have been completed and are ready for inspection.

Within 48 hours of receiving a lighting complaint, the project owner shall provide BLM's Authorized Officer and the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation. The project owner shall notify BLM's Authorized Officer and the CPM within 48 hours after completing implementation of the proposal. A copy of the complaint resolution form report shall be submitted to BLM's Authorized Officer and the CPM within 30 days.

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

Application for Certification for the IVANPAH SOLAR ELECTRIC GENERATING SYSTEM	))))	Docket No. 07-AFC-5

PROOF OF SERVICE

I, Karen A. Mitchell, declare that on August 26, 2010, I served the attached letter regarding *Clerical Errors In PMPD Condition Language for the Ivanpah Solar Electric Generating System* via electronic and U.S. mail to all parties on the attached service list.

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

Karen A. Mitchell

Karen A. Mitchell

SERVICE LIST
07-AFC-5

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EXHIBIT 5

LETTER FROM

APPLICANT TO MS. MONISHA GANGOPADHYAY AND MR. TOM HURSHMAN

RE: COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT FOR THE ELDORADO-IVANPAH TRANSMISSION PROJECT

(JUNE 21, 2010)

June 21, 2010

Monisha Gangopadhyay, Project Manager
California Public Utilities Commission

Tom Hurshman, Project Manager
U.S. Bureau of Land Management

c/o Ecology and Environment, Inc.
130 Battery Street, Suite 400
San Francisco, CA 94111

Re: Comments on the Draft Environmental Impact Report/Environmental Impact Statement for the Eldorado-Ivanpah Transmission Project

Dear Ms. Gangopadhyay & Mr. Hurshman,

On behalf of Solar Partners I, LLC, Solar Partners II, LLC and Solar Partners VIII, LLC, wholly-owned subsidiaries of BrightSource Energy, Inc. (hereinafter collectively "BrightSource"), we offer the following comments on the Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) for the Eldorado-Ivanpah Transmission Project (EITP). As you know, BrightSource is the Applicant for a right-of-way needed for the Ivanpah Solar Energy Generating System (ISEGS) project currently under review by the U.S. Bureau of Land Management (BLM). BrightSource wishes to express its support for the EITP, and urges the Bureau and the California Public Utilities Commission to promptly complete their review and approval of the project. BrightSource also appreciates this opportunity to comment on the Draft EIR/EIS, and provides comments below on two issues raised in that document that relate to the ISEGS project: the connected action analysis and the description of the ISEGS project utilized as part of the EITP "cumulative action" analysis.

Connected Action

BrightSource has consistently demonstrated throughout the development of the ISEGS DEIS and SDEIS that the ISEGS project and the EITP project are not connected actions for the purposes of NEPA. BrightSource has consistently stated that the ISEGS project would proceed with or without the EITP. However, certain statements made in the EITP Draft EIR/EIS fail to properly characterize this issue.

The EITP Draft EIR/EIS states on page 2-36 that the ISEGS project "at full build-out would be dependent on the EITP because the existing transmission line without the EITP proposed line and substation upgrades would provide insufficient transmission capacity for the power generated by all phases of the ISEGS project… ." While it is true that the existing Southern California Edison Company (SCE) line

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would not provide sufficient capacity by itself for all phases of the ISEGS project, other transmission options exist for the project, as BrightSource has consistently stated, and as discussed further below. The Draft EIR/EIS does goes on to state that the EITP project is not a "connected action" to the ISEGS project because EITP can operate without and does not need ISEGS in order to be a viable project. The implication of these statements, taken together, is that while EITP does not need to consider ISEGS as a connected action, the ISEGS project should consider the EITP as a connected action. However, since the conclusion that ISEGS at full power is dependent upon the transmission line and substation upgrades contemplated by the EITP is incorrect, this implication is also incorrect.

As noted in our comments filed on the ISEGS Supplemental DEIS, dated June 1, 2010, the ISEGS project is not dependent upon the EITP project in order to operate at full power. In those comments, BrightSource stated as follows:

> The Applicant [BrightSource] has been very clear in stating that full implementation of its project [ISEGS] does not depend upon this transmission line upgrade, as other options, including the utilization of existing transmission located to the north of the ISEGS, exist. (June 1, 2010, Comment at 10)

Our comment further expressed disagreement with the statements in the EITP Draft EIR/EIS that indicate that ISEGS is dependent upon the EITP upgrades. The June 1, 2010, comment continues as follows:

> The Applicant [BrightSource] disagrees with the statements in the EITP DEIS that the full utilization of power from the ISEGS requires the EITP upgrades. While the transmission line upgrades proposed by the EITP are needed for Southern California Edison to accommodate power generated by all the possible and planned renewable energy production facilities in the southern California desert area, the upgrades are not necessarily required to implement the ISEGS project, and in any event, for the ISEGS project to become operational, transmission line upgrades at the scale proposed by the EITP are not needed. (June 1, 2010, Comment at 11)

The Final EIR/EIS issued for the EITP should correctly note that ISEGS does not depend upon construction of the EITP in order to operate at full capacity.

ISEGS Project Description

Throughout the EITP Draft EIR/EIS, the ISEGS is treated as a "cumulative action." While BrightSource has asserted in the June 1, 2010, comments on the ISEGS SDEIS that the ISEGS and EITP projects need not be treated as cumulative actions, we acknowledged that the ISEGS Final EIS could reference or incorporate directly an analysis of the cumulative impacts analysis of the EITP that was made part of the proceedings before the California Energy Commission (CEC) relating to the ISEGS project, and which were provided to the public as part of the joint DEIS/ Final Staff Assessment for the ISEGS project.

BrightSource recommends that the cumulative actions analysis contained in the EITP Final EIR/EIS reflect impacts of the Mitigation Ivanpah 3 Alternative, which was addressed in the Ivanpah SDEIS. The Mitigated Ivanpah 3 Alternative has been recommended for approval by the CEC staff, and has the full support of BrightSource. As demonstrated in our June 1, 2010, comments on the Ivanpah SDEIS, the Mitigated Ivanpah 3 Alternative would:

- Reduce the footprint of the third Ivanpah plant by 23 percent, avoiding the area identified by environmental groups during the CEC proceedings and the DEIS public comment period as posing the greatest concern.
- Reduce the footprint of the overall Ivanpah project by about 12 percent.
- Reduce expected desert tortoise relocations by approximately 15 percent (based on previous protocol surveys of the project site; the actual number will depend on where tortoises are at the time they are relocated).
- Avoid the area identified as having the highest rare plant density.
- Reduce the number of towers at the third Ivanpah plant from five to one; reduce overall number of towers at the Ivanpah project from seven to three.
- Reduce the potential maximum number of heliostats by about 40,000.
- Avoid the area that would have required the most grading and large rock removal in the solar fields.
- Leave the largest natural stormwater features (washes) in the northern portion of the site intact.

Clearly, to the extent that the EITP Draft EIR/EIS considers the ISEGS a "cumulative action," the BLM should take care to ensure that the description of the likely impacts from the ISEGS project reflect the Alternative that now represents the ISEGS Applicant's preferred project. A full description of the Mitigated Ivanpah 3 Alternative can be found in the ISEGS SDEIS at pages 8-21. A full analysis of the reasonably foreseeable impacts of the Mitigated Ivanpah 3 Alternative can be found in the ISEGS SDEIS at pages 24 – 103. BrightSource urges BLM to adopt the Mitigated Ivanpah 3 Alternative as the "cumulative action" considered in the EITP Final EIR/EIS.

BrightSource appreciates this opportunity to provide its comments on the Draft EIR/EIS. The EITP would provide a beneficial contribution to a robust transmission system, increasing the capability to deliver renewable energy and contributing to federal and state clean energy goals. We support the EITP, and again urge its prompt approval by the Bureau and the California Public Utilities Commission.

Sincerely,

/s

Arthur L. Haubenstock

Jared Fuller <jgillenfuller@yahoo.com>
08/31/2010 12:55 PM
To
caisegs@blm.gov
cc

bcc

Subject
Public comment Ivanpah SEGS, Final EIS

To whom it may concern:

I am opposed to the large scale disturbance of natural areas associated with solar energy development on public land. These proposals cause unmitigatible disruption to the landscape and visual resources. In particular, I am most concerned when rare species and their habitats are involved. Due to the scale of impacts to rare plants and animals and the inadequacy of mitigation measures, in addition to other effects on the environment, the Ivanpah SEGS should not be built.

Species the project will most significantly impact include desert pincushion, mojave milkweed, rusby's globemallow, and desert tortoise. The length and width of the project pose a significant barrier to the migration and establishment of new populations of these species as well as many others. Many of the rare plants are located at the extremes of their ranges and the loss of individuals and habitat may diminish genetic variability in these species. This is particularly true given the threat of effects of climate change this project is supposed to diminish. Genetic variability is also an issue of concern for desert tortoises.

The proposed mitigation measures, while an improvement on the original proposal, are generally inadequate. Mitigation should account for the fact that the site will likely remain developed beyond the projected life-span of the project, since the reasons for selecting this site will remain the same for a replacement project, with the added pull of in-place infrastructure and prior site disturbance. With continuing development on the site, mitigation through avoidance of individual plants is unlikely to be effective because once these plants die, new recruits are unlikely to re-establish within an area so small. This is also likely to occur in many cases during the life-span of the current project. Long-term transplants should be placed in areas away from development so new plants can establish. This is difficult without causing new disturbance which would be necessary to monitor and maintain them.
The purchase of mitigation lands for desert tortoise habitat may be limited by the lack of suitable sites or willing sellers. Also, the relocation of tortoises often has not been very successful.

Jared Fuller
Provo, UT
84601

George Meckfessel
Planning and Environmental
Coordination - BLM.

Sept. 3, 2010

Ivanpah

I have visited Ivanpah Valley on several occasions. Each time I realize this valley is one of the most beautiful and significant landscapes I have seen in 20 years of enjoying the Mojave desert.

The variety and multitude of desert cactus species surrounding a metamorphic hill is a one of a kind visual experience in this Mojave desert.

Completing this picture is the desert tortoise. Most of these will die as in other recent relocation of tortoise.

We need effective desert wide planning before we go down the road of ecosystem degradation and species extinction.

Clean energy can be attained without sacrificing this important place.

Do not allow the California desert plan to be amended.

I urge you - save Ivanpah for future generations.

Lloyd Gunn
llydgunn@verizon.net

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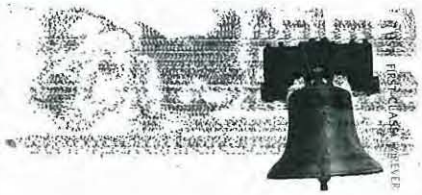

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Defenders of Wildlife
Natural Resources Defense Council
Sierra Club
The Wilderness Society

September 3, 2010

Tom Hurshman, Project Manager
Bureau of Land Management
2465 South Townsend Avenue
Montrose, CO 81401

(via e-mail: caisegs@blm.gov)

Re: Proposed Resource Management Plan Amendment and the Final Environmental Impact Statement for the California Desert Conservation Plan for the Proposed Ivanpah Solar Electric Generating System (ISEGS) Project

Dear Mr. Hurshman:

By this letter the **Defenders of Wildlife** ("Defenders"), **Natural Resources Defense Council** ("NRDC"), **Sierra Club** and **The Wilderness Society** ("TWS") submit comments on the Proposed California Desert Conservation Area ("CDCA") Plan Amendment and the Final Environmental Impact Statement for the proposed ISEGS Project (FEIS 10-31) issued by the Needles Field Office in July 2010. Our organizations have concurrently submitted a formal protest on this proposed CDCA Plan amendment and proposed project.

Defenders is a national, non-profit conservation organization with 950,000 members and supporters, including 145,000 whom reside in California. Defenders is dedicated to the protection of all native wild animals and plants in their natural communities. To this end, Defenders employs science, public education and participation, media, legislative advocacy, litigation and proactive on-the-ground solutions in order to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction. Defenders has actively participated in the planning process for this proposed project. Approval of a CDCA Plan amendment permitting this project to go forward will affect the interests of Defenders and its members because it will result in adverse impacts to species, and associated habitats, that have been listed as threatened under the Endangered Species Act, and designated special status species by the BLM; will result in unnecessary and undue destruction of public lands and biological resources; and contribute to the degradation of environmental quality in the CDCA.

NRDC is a non-profit environmental organization with 1.3 million members and online activists, more than 250,000 of whom live in California. NRDC uses law, science and the support of its members and activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things. NRDC, like the other protesting organizations, has long worked to protect wildlands and natural values on public lands managed by the BLM, including the CDCA. NRDC's interests relate to ensuring that the BLM in its decision-making process complies fully with all applicable laws, including the National Environmental Policy act

("NEPA"), 42 U.S.C. § 4321 *et seq.*, and the Federal Land Policy and Management Act ("FLPMA"), 43 U.S.C. § 1701 *et seq.*, and applicable policies, as well as that the agency avoids and minimizes negative impacts to publicly-owned lands and resources in the CDCA that would be affected by the proposed project including, in particular, the federally threatened Desert Tortoise and its habitat.

Sierra Club is a national, non-profit membership organization with over 700,000 members and supporters dedicated to exploring, enjoying and protecting the wild places of the Earth; to practicing and promoting the responsible use of the Earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. Over 200,000 Sierra Club members and supporters reside in California. Sierra Club, which is incorporated under the laws of the State of California, maintains its national headquarters in San Francisco, CA. Many Sierra Club members visit and actively use the public lands that would be affected by this project for recreational and aesthetic purposes such as hiking, nature study, and the study of historic and cultural effects and would be harmed by the direct, indirect and cumulative impacts of the BLM's proposed amendment and decision that would allocate approximately 4,000 acres of public land to a single use, the ISEGS Project

The mission of **TWS** is to protect wilderness and inspire Americans to care for our wild places. TWS has worked for more than 70 years to maintain the integrity of America's wilderness and public lands and to ensure that land management practices are sustainable and based on sound science to ensure that the ecological integrity of the land is maintained. With more than half a million members and supporters nationwide, TWS represents a diverse range of citizens. TWS has actively participated in the planning process for this proposed project. TWS' interest in protecting the public's lands and resources from unnecessary and undue harm will be adversely affected by approving the proposed amendment as will its interest in ensuring that BLM complies fully with applicable laws, policies and regulations.

Our respective organizations strongly support the development of renewable energy to reduce greenhouse gas emissions, avoid the worst consequences of global warming and assist California in meeting its emission reduction goals. However, we believe that renewable energy development must be done right and in full compliance with applicable environmental laws. Our comments concern 1) the FEIS and Proposed Amendment to the CDCA Plan in general, 2) the purpose and need, alternatives and environmental effects, 3) compliance with NEPA and FLPMA, and 4) compliance with BLM policies. Overall, we are concerned that BLM has failed to adequately fulfill its planning and management responsibilities for the affected public lands and their associated biological resources and values, as described in detail in our comments on the DEIS submitted by our organizations.

I. The Proposed CDCA Plan Amendment and FEIS Do Not Comply with NEPA

The Proposed CDCA Plan Amendment and FEIS fail to comply with numerous clear requirements of NEPA, including the following:

A. The purpose and need statement is too narrow. BLM considers the purpose and need to be responding to the applicant's right of way application under Title V of the FLPMA. (FEIS at 2-6). It is focused on meeting the objective of the applicant (FEIS at 2-5) and on amending the CDCA for this project only, thus essentially foreclosing serious consideration of meaningful alternatives during the formulation of the final decision. *See* National Parks Conservation Assn. v. BLM, 586 F.3rd 735 (9th Cir. 2009). Our organizations commented on the inadequacy of the purpose and need and alternatives analysis in the DEIS, strongly advocating that BLM comply with NEPA by not only considering, but analyzing a range of alternatives that would contribute to achieving the federal and state mandated goals for generation and distribution of electrical energy from renewable sources. In preparing the FEIS, BLM considered a relatively large number of alternatives (i.e., 25) but prematurely and improperly dismissed all but four for further analysis.

The dismissal of private land alternatives is contrary to the requirements of NEPA as we have argued in our comments, and one public land alternative, the Siberia East, was eliminated from further analysis by BLM on the ground that it would not meet the applicant's objectives because it would not provide the proponent with the means to satisfy the timing conditions of their contractual obligations in their power purchase agreements. The Ivanpah Dry Lake Alternative was dismissed because BLM <u>assumed</u> the costs associated with dike construction for flood control would be prohibitively expensive, and would eliminate the use of Ivanpah Dry Lake for current recreational use (i.e., land sailing) (FEIS at 3-81). However, BLM did not undertake any studies of the dry lake alternative to estimate the cost of flood control. Nor did it consider that the proposed project would not affect the entire dry lake surface and not necessarily completely displace land sailing recreation use. Lastly, the Ivanpah Dry Lake alternative was eliminated, in part, because it is currently closed to off-road vehicle use as per the CDCA Plan. Such restriction applies only to casual off-road vehicle use which would not apply in the case of an authorized activity. It is our understanding that the applicant initially considered the Ivanpah Dry Lake for the proposed project but was deterred from pursuing that alternative based on discussions with BLM personnel from the Needles Field Office due to concerns over the impact to land sailing recreation.

The private land alternatives located near Harper Dry Lake and the triangular area east of Barstow were dismissed based on the applicant's conclusion that the costs associated with land acquisition were too high (Harper Dry Lake area) and that the ability of a developer to acquire multiple, contiguous private land holdings covering a large area would not likely be feasible (triangular area east of Barstow).

The Siberia East Alternative on public land was dismissed, in part, based on BLM's <u>assumption</u> that the impacts would not be substantially less than those associated with the proposed project site in Ivanpah Valley. (FEIS at 3-48). These reasons are not consistent with BLM's responsibilities under NEPA.

Considering that the CDCA Plan established various Multiple Use Classes to guide multiple uses to potentially appropriate locations, namely Classes Limited (L), Moderate (M) and Intensive (I), BLM should have fully considered a range of alternatives that included Multiple Use Classes M and I, which were established for the potential approval of multiple uses involving more

intensive development and, in particular, industrial-scale solar power generation and transmission which this proposed project entails. For further discussion see Section II.B, below.

B. Because of the overly restricted purpose and need statement, the alternatives considered and analyzed do not include a reasonable range. The BLM's dismissal of the off-site alternatives assumed that the applicant's requirements for a proposed 400 MW project needed to be met in one location rather than multiple, smaller sites even if they were located within the same general area. The rationale for dismissing such an alternative is puzzling considering that the proposed project in Ivanpah Valley is actually comprised of four separate right of way applications.

C. The analysis of direct, indirect and cumulative impacts provide considerable quantitative data on magnitude and duration of impacts to the Ivanpah Valley region, but consideration of these impacts in light of the statutory and regulatory standards for management and protection of the public lands in the CDCA is lacking.

D. A significant component of the proposed project, the Desert Tortoise Translocation Plan, has not been finalized although a basic framework and conceptual plan was addressed briefly in the DEIS and FEIS. The translocation plan that is in preparation will propose the capture, manipulation, release and monitoring of up to 50 Desert Tortoises on public lands managed by BLM and federal lands within the Mojave National Preserve that are under jurisdiction of the National Park Service. To date the National Park Service has not consented to or approved the use of federal lands within the Mojave National Preserve for release and monitoring of translocated Desert Tortoises. Thus, the proposed translocation plan as described in the FEIS is in error and should be withdrawn. A proposed translocation plan should be released for public review after the regulatory agencies have resolved the issue of where the long-distance translocation release site or sites are located. Until such a proposed plan is developed and released for public review and comment, the BLM's responsibilities under NEPA for the proposed action cannot be met.

Desert Tortoise translocation is considered by the U.S. Fish and Wildlife Service an experimental procedure intended to minimize "take" of this threatened species due to documented high rates of mortality due to increased predation associated with the procedure. By definition it is not a mitigation measure as described in the FEIS (Measure BIO-10).

The FEIS does not adequately address the issue of mortality to both resident and translocated Desert Tortoises, and the impacts to public land habitat or this species associated with anticipated mortality due to predation by Coyotes and other predators such as the Common Raven. The issue of increased mortality has been the subject of extended study and debate, especially after unanticipated high mortality was documented at nearby Fort Irwin, also located in the western Mojave Desert. The Fort Irwin desert tortoise translocation project was halted by the Army because they were required to reinitiate Section 7 consultation with the U.S. Fish and Wildlife Service. The issue of mortality of translocated Desert Tortoises was discussed at length at the California Energy Commission continuation hearing on the proposed Calico Solar Project held on August 25, 2010. At that hearing, Dr. Kristin Berry of the U.S. Geological Survey reported that to date, 49% of the 158 Desert Tortoises involved in the Fort Irwin translocation

project have died due to predation largely by Coyotes and Ravens. The FEIS for the proposed ISEGS Project identifies that mortality associated with Desert Tortoise translocation in general is a concern, but does not include any analysis of such mortality from any translocation projects and monitoring reports, including those associated with the Fort Irwin translocation. Dr. Berry, considered among the most qualified scientists involved with Desert Tortoise biology, ecology and translocation, should be a key participant in discussions on Desert Tortoise translocation ecology by the regulatory agencies. Lastly, the Independent Science Advisors to the Desert Renewable Energy Conservation Plan (DRECP) recently issued their draft recommendations for the DRECP in August 2010, and they stated "…the advisors do ***not*** recommend translocation of desert tortoise as effective mitigation or conservation action, in part because translocated tortoises suffer high mortality rates."

Assessment of conditions of the Desert Tortoise translocation sites proposed by the project applicant and contained in the Draft Desert Tortoise Translocation Plan in the FEIS have not been completed to the standards established in BLM Manual 1745 regarding ecological condition, and disease occurrence among the translocation sites "host population" of Desert Tortoises has not been established.

II. The Proposed CDCA Plan Amendment and FEIS Do Not Comply with FLPMA and the CDCA Plan, as amended

The Proposed CDCA Plan Amendment and FEIS do not comply with FLPMA's clear mandates, including 43 U.S.C. §§ 1701(a)(8), 1732(b), 1781(b), in numerous respects, including the following:

A. The proposed CDCA Plan Amendment and project have not been analyzed in the context of the CDCA and the CDCA Plan. Although specific management principles and guidelines are contained in the CDCA Plan, they have not been applied to either the proposed amendment or project. Nor have landscape level issues and management objectives been considered in evaluating these proposals or in selecting meaningful alternatives to them. Specifically, the analysis of the proposed plan amendment and project have not been adequately analyzed in the context of FLPMA's mandate for the CDCA: "…to provide for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality." (FLPMA Sec. 601 (b)).

B. The impacts to Multiple Use Class L lands and their sensitive natural and cultural resources, and the loss of multiple uses on those lands that will result if this project is permitted to go ahead have not been addressed. Although the CDCA Plan allows for consideration of wind and solar energy generation facilities within Multiple Use Class L lands, any proposed facility, such as the proposed ISEGS, must conform to the management principles guidelines for such activities within the context of Multiple Use Class L lands. According to the CDCA Plan, as amended, "Multiple-Use Class L (Limited Use) protects sensitive, natural, scenic, ecological, and cultural resource values. Public lands designated as Class L are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished." (CDCA Plan at 13). There has been no meaningful analysis of how construction and maintenance of the proposed 4,000 acre fenced

industrial project will or could conform to the Multiple Use Class L management principles and guidelines.

In its pre-application communications with the project applicant, BLM should have clearly indicated that industrial-scale solar energy and transmission projects, and specifically the proposed ISEGS Project, are more suitable in Multiple Use Class M and I, based on the management policies associated with Class L.

C. BLM failed to conduct an adequate inventory of the resources of the affected lands prior to preparing the PRMP-A/DEIS and FEIS as required by 43 U.S.C. § 1711(a), and as a result cannot ensure that its decisions will prevent unnecessary and undue degradation of the public's lands in violation of FLPMA. (*Id.* §§ 1732(b), 1732(d)(2)(a)). The affected lands must also include those that would be used for Desert Tortoise translocation.

III. The Proposed CDCA Plan Amendment and FEIS Do Not Comply with BLM Manual 6840: Special Status Species Management, the Bald and Golden Eagle Protection Act, and BLM Policy contained in Instruction Memorandum No. 2010-156 (7/13/2010) regarding Golden Eagle protection

The Proposed CDCA Plan Amendment and FEIS Do Not Comply with BLM Manual 6840: Special Status Species Management, for the following reasons:

A. Because the proposed action would result in the destruction of approximately 4,000 acres of occupied suitable habitat for the threatened Desert Tortoise, the proposed action is inconsistent with the BLM's obligation to conserve and/or recover listed species and the ecosystems on which they depend so that ESA protections are no longer needed.

B. Because the proposed action would result in the destruction of approximately 4,000 acres of habitat utilized by special-status wildlife species, including Burrowing Owl, Loggerhead Shrike, Crissal Thrasher, Golden Eagle, and American Badger. The proposed project would also impact vegetation in the 4,000 acre project area, including Rusby's Desert-mallow, a BLM Sensitive Species. Impacts to the BLM Sensitive Golden Eagle through loss of foraging habitat is recognized, but potential impacts to this species from collision with project facilities and mortality caused by concentrated reflected sunlight between the mirror fields and the central receiving tower have not been adequately studied. Rather, the FEIS states that monitoring for such impacts would be required and that additional, but unspecified, mitigation may be required.

C. Requirements for achieving "no net loss" standard of the U.S. Fish and Wildlife Service for the Golden Eagle, including its foraging habitat, would be completed by the applicant within six months after project approval in the form of an Avian Protection Plan that must be approved by the U.S. Fish and Wildlife Service. The FEIS simply states that the U.S. Fish and Wildlife Service "believes" that the no net loss standard for Golden Eagles can be achieved, however no documentation of such a finding is contained in the FEIS.

Compliance with BLM Instruction Memorandum 2010-156 states:

> If in correspondence the FWS indicates that an APP is not sufficient to avoid or minimize likely take resulting from the proposed project (i.e., an APP is not an option), the BLM authorized officer will not issue a Record of Decision or Decision Record approving the project. If the applicant wishes to proceed, the applicant must then identify an alternative project design to reduce the likely take to a level that is compatible with the preservation of eagles, and receive FWS concurrence for the revised APP. If, after coordination with the FWS, an APP is deemed appropriate and needed to sufficiently avoid and minimize take by the proposed project, the BLM authorized officer may issue a Record of Decision or Decision Record approving the project; however, the BLM authorized officer will not issue a Notice to Proceed until the FWS letter of concurrence for the APP is received for the project.

IV. The Proposed CDCA Plan Amendment and FEIS do not conform with the requirements contained in BLM Manual 1745: Introduction, Transplant, Augmentation and Reestablishment of Fish, Wildlife and Plants

The Proposed CDCA Plan Amendment and FEIS do not conform to BLM Manual 1745: Introduction, Transplant, Augmentation and Reestablishment of Fish, Wildlife and Plants, for the following reasons:

A. All proposed introductions, transplants, reestablishments, or augmentation/restocking shall be in conformance with management direction and decisions in an applicable Resource Management Plan (RMP) (see BLM Manual Sections 1601 and 1622). A site-specific activity plan must be prepared, using an interdisciplinary planning process, for all proposed introductions, transplants, and reestablishments, unless waived by the State Director.

B. NEPA compliance is required before introductions, transplants and reestablishments can be approved.

C. Quarantine procedures must comply with all Federal and State regulations, restrictions, and requirements governing the release of disease free organisms and the importation of exotic plants and animals into the U.S.

D. Interested and affected State and Federal agencies, private landowners, and other individuals and organizations must be notified through identified processes of possible introductions, transplants, and reestablishments during the planning and NEPA review processes.

E. Public participation is required. Parties potentially affected by introductions transplants, or reestablishments, must be given the opportunity to be involved in the public participation process outlined in BLM Manual Section 1614. Potentially affected parties include adjacent State, Federal, and private landowners, other interested groups, and individuals.

F. A site-specific activity plan is required prior to the introduction, transplant, and reestablishment of plants or animals on public lands, unless waived by the state Director. The activity plan must include:

1) Site-specific and measurable vegetation/habitat population objectives which are based on existing ecological site potential/condition, habitat capability, and other important factors. (See BLM Manual Sections 1619, 6780, and 4120).

2) Planned actions to accomplish the stated objectives.

3) Appropriate monitoring and evaluation.

4 Coordination with other management plans and programs.

The Desert Tortoise Recovery Plan (Fish and Wildlife Service 1994) contains guidelines for the translocation of Desert Tortoises which include the following: 1) Experimental translocations should be done outside experimental management zones. No desert tortoises should be introduced into DWMAs – at least until relocation is much better understood, and 2) Areas into which desert tortoises are to be relocated should be surrounded by a desert tortoise-proof fence or similar barrier. The fence will contain the desert tortoises while they are establishing home ranges and a social structure. If the area is not fenced, past experience suggests that most animals will simply wander away from the introduction site and eventually die.

CONCLUSION

For the reasons set out above, the Proposed CDCA Plan Amendment and FEIS for the proposed Ivanpah SEGS project violates NEPA, FLPMA and BLM policies. BLM must therefore prepare a new or amended FEIS that fully analyzes the impacts of the project and ensures that impacts that cannot be avoided or minimized are offset. By taking this approach, BLM would be able to fully consider alternative locations for the proposed project located within Multiple Use Class M and I, and thereby select an alternative consistent with the provisions of NEPA, FLPMA and the CDCA Plan.

Thank you for considering our comments. Please contact us as a group or individually if you have any questions about the issues we raise in this letter.

Sincerely,

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SEP 0 3 2010

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Needles, CA 92363

Subject: Final Environmental Impact Statement for the Ivanpah Solar Electric Generating System, San Bernardino County, California [CEQ# 20100292]

Dear Mr. Meckfessel:

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

EPA reviewed the Joint Draft Environmental Impact Statement (DEIS) and Staff Assessment and provided comments to the Bureau of Land Management (BLM) and the California Energy Commission (CEC) on February 11, 2010. We rated the DEIS as *Environmental Concerns – Insufficient Information* (EC-2), primarily due to concerns over potential impacts to biological and aquatic resources, threatened and endangered species, and air quality. We also asked for additional information on cumulative impacts from reasonably foreseeable future actions, justification for the Project purpose, need, and independent utility, and evaluation of alternatives.

We reviewed the Supplemental DEIS (SDEIS) and submitted comments on June 3, 2010. We rated the SDEIS as EC-2. While we commended BLM for evaluating reduced acreage alternatives and a modified purpose and need statement in the SDEIS, our concerns regarding the environmental impacts of the Project and the need for evaluation of a reasonable range of alternatives were only partially addressed. Previously, on January 16, 2008, EPA provided extensive formal scoping comments for the proposed Project.

We appreciate the efforts of BLM, the applicant, and its consultants to discuss and respond to our DEIS and SDEIS comments. We note that, in the FEIS, BLM has incorporated additional analysis of cumulative impacts, including additional discussion of the Ivanpah-El Dorado transmission line; removed specified energy output requirements, time constraints, and siting restrictions from its purpose and need statement and alternatives analysis criteria; included evaluation of a Phased Approval alternative and alternative sites with pending Right-of-Way (ROW) applications; evaluated alternatives that reduce impacts to biological and aquatic

resources, including lands outside the original ROW; included additional discussion of habitat connectivity and impacts to birds and bighorn sheep; and integrated a Low Impact Development approach, favoring maintenance of natural flow pathways wherever possible and eliminating stormwater storage and containment areas.

We were pleased to note that BLM now indicates that it can sign a ROD approving a ROW grant for a project area that is not contained in the original ROW application, and that BLM no longer appears to be taking the position that an existing application confers a property right that precludes performing a detailed evaluation of an alternative to a proposed project. We also appreciate BLM's recognition that locating solar energy facilities on previously disturbed sites (public or private) would be desirable. EPA believes these are important clarifications that should be implemented by all BLM field offices to set the stage for consistent and full evaluation of reasonable alternatives for all current and future renewable energy projects proposed on BLM lands.

EPA continues to have concerns about impacts to aquatic and biological resources, threatened and endangered species, and air quality. We request additional information, clarification, and analysis of impacts in these resource areas. We also strongly encourage BLM to reconsider its preferred alternative decision, as the Modified I-15 Alternative would reduce impacts to biological and aquatic resources. Our primary concerns and recommendations are attached. We recommend that BLM address these issues prior to making a final decision on the proposed Project.

We are available to discuss all recommendations provided. Please send two hard copies and one CD ROM copy of the responses to FEIS comments and the Record of Decision to us when they are filed with our Washington D.C. office. If you have any questions, please contact me at 415-972-3521, or contact Tom Plenys, the lead reviewer for this Project. Tom can be reached at 415-972-3238 or plenys.thomas@epa.gov.

Sincerely,

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

Enclosures: EPA Detailed Comments

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

U.S EPA DETAILED COMMENTS ON THE FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR THE IVANPAH SOLAR ELECTRIC GENERATING SYSTEM PROJECT, SAN BERNARDINO COUNTY, CALIFORNIA, SEPTEMBER 3, 2010

Aquatic Resources

EPA remains concerned about the potential impact to approximately 2,000 ephemeral water segments on the site, which could result in direct or indirect impacts to wildlife functions and values provided by 198 acres of waters of the State. All drainage from surrounding mountains and alluvial fans collects in closed basins in the Ivanpah Valley. Ivanpah Dry Lake, a water of the Unites States, is located approximately 2 miles east and downslope of the Project area. Numerous ephemeral washes occur throughout the broad, coalescing alluvial fans that convey storm water runoff from the mountains toward Ivanpah Lake. As noted in our previous comments, natural washes perform a diversity of hydrologic and biogeochemical functions that directly affect the integrity and functional condition of higher-order waters downstream. Project design should minimize disruption to downstream flows by avoiding, to the maximum extent possible, changes to natural washes, excavating sediment, vegetation clearing, and grading of surface irregularities.

Although the proposed Project construction method, Low Impact Development, would be designed to minimize direct impacts to drainages, the FEIS indicates that all 2,000 ephemeral drainages are assumed to be impacted (pg. 4.3-130). Further, a scour analysis conducted to evaluate the potential of heliostat failure predicted the failure of more than 4,000 heliostats in a 10-year storm, and over 32,000 in a 100-year storm (pg. 4.10-24). While the FEIS indicates potential impacts from storm water and sedimentation are uncertain (pg. 1-29), it appears that some such impacts are expected, given the inclusion of measure Soil&Water-5 to monitor these potential impacts to equipment in the drainages.

EPA remains concerned about the increased erosion, migration of channels, local scour, and potential destabilization and damage that could result from installing equipment in drainages, and we strongly recommend maximum avoidance of these waters and high risk flood hazard zones. Heliostats placed in flood hazard areas are subject to scour, and could become unstable if the scour undermines their structural foundation, resulting in collapse and potentially damaging and polluting the washes and ground surface with mirror fragments and other debris. We reiterate our DEIS recommendation to minimize direct and indirect impacts, such as erosion, migration of channels, and local scour, by not placing heliostats in washes.

The California Department of Fish and Game (CDFG) has not provided concurrence on compensatory mitigation for waters of the State (pg. A.1-128 and A.1-196). Their final determination should play an important role in informing the decision on which alternative to approve and what commitments, terms, and conditions must accompany that approval.

Recommendations:

- The ROD and responses to comments on the FEIS should discuss all measures to avoid washes and placement of heliostats in drainages for the proposed Project and include the final details and requirements of a compensatory mitigation plan.
- In responses to FEIS comments and in the ROD, confirm removal of stormwater storage and containment areas and demonstrate that downstream flows will not be disrupted due to proposed changes to natural washes, excavation of sediment, or increased sedimentation due to increased vegetation clearing and grading of surface irregularities.
- Integrate fencing design into the ROD to ensure unimpeded hydrologic flow and sediment transport through the site.
- Minimize the number of road crossings over washes in order to minimize erosion, migration of channels, and scour. Road crossings should be designed to provide adequate flow through during large storm events. Commit to these measures in the ROD.
- Locate any remaining facilities outside of waters and commit to these measures in the ROD. Estimate acreages and number of species protected as a result of alternative design configurations.
- Incorporate vegetation removal and re-establishment conditions for construction into the ROD that minimize vegetation removal in drainages, avoid impacts to drainage bank contours, and require restoration using low-lying native species, as appropriate, that would not require trimming nor impede the Project's operation.
- Fully discuss, in responses to FEIS comments, how many heliostats will be installed in drainages for the final design. Impacts from such construction to waters of the State should be quantified. All analyses should be updated to include a full evaluation of impacts to waters, sedimentation, scouring, etc. from locating heliostats in flood hazard areas.
- Responses to FEIS comments should fully describe and quantify the benefits of the Low-Impact Development design that is described in the responses to comments (pg. A.1-190 and A.1-192).
- Discuss the availability of sufficient compensation lands to replace desert wash functions lost on the Project site.

Biological Resources

Detailed compensatory mitigation measures are determined on a project-specific basis, and must be contained in each project's environmental analyses and decision documents. The ROD should describe the final biological resources mitigation commitments and how they would be funded and implemented. The FEIS indicates the applicant could contribute to the National Fish and Wildlife Foundation (NFWF) Account to compensate for loss of desert tortoise habitat (pg. 4.3-111). For each species requiring compensatory mitigation, the ROD should state whether and how the Project applicant would use the NFWF Account, an in-lieu fee strategy, or an applicant-directed implementation strategy.

We understand CDFG has not yet provided concurrence on desert tortoise mitigation (pg. 4.3-3) and that the translocation plan is pending approval by CDFG and U.S. Fish and Wildlife Service (USFWS) (pg. A.1-128). Also, the Biological Opinion for desert tortoise has not been finalized and a jeopardy opinion could be issued if USFWS determines that substantial residual impacts remain, even with the application of additional mitigation measures (pg. A.1-134). These final determinations should play an important role in informing the decision on which alternative to approve and what commitments, terms, and conditions must accompany that approval.

We also remain concerned that additional botanical surveys have not been conducted to sufficiently compare and contrast the proposed alternatives. As the FEIS states, "the recent push for renewable energy development on private and public lands in the Mojave Desert region has put many of its special-status plants under far more immediate threat of local extinctions" (pg. 4.3-32). From our review of the SDEIS, it was apparent that sufficient survey information was not available to adequately compare alternatives, and it appears this is still the case in the FEIS. Detailed botanical surveys have still not been conducted on the Modified I-15 Alternative site (pg. 4.3-72), and uncertainty regarding the extent to which sensitive plants would be avoided on the entire Project site still exists (pg. 4.3-36). In the absence of the needed surveys, the FEIS indicates that, based on available information, the Modified I-15 Alternative includes fewer acres capable of sustaining rare plant communities, as compared to the proposed Project (pg. 4.3-72). Field surveys should be completed to confirm this assessment, and any additional avoidance or mitigation measures identified as a result of the new findings should be incorporated into the ROD.

Recommendations:

- Incorporate final information on the compensatory mitigation proposals (including quantification of acreages, estimates of species protected, costs to acquire compensatory lands, etc.) for unavoidable impacts to waters of the State and biological resources such as bighorn sheep, desert tortoise and golden eagles.
- A clear commitment to implement mitigation measures that result from consultation with the USFWS and CDFG to avoid and minimize adverse effects to sensitive biological resources, including habitat for desert tortoise, bighorn sheep, and golden eagles, should be included in the FEIS and, ultimately, the ROD.
- Clarify the rationale for a 3:1 mitigation ratio for tortoise habitat and how this relates to the mitigation ratio being applied for other renewable energy projects mitigating for desert tortoise impacts in California and Nevada.
- If the applicant is to acquire compensation lands, the location(s) and management plans for these lands should be fully disclosed in the ROD.
- Provide additional supporting documentation, in the responses to FEIS comments, for the final acreage identified as habitat for the bighorn sheep and golden eagles on the Project site, as well as compensation habitat acreage. Update BIO-19 and 28 as appropriate.
- Include the provisions or mechanism(s) in the ROD that will ensure that habitat selected for compensatory mitigation will be protected in perpetuity.

- Fully incorporate into the ROD any mitigation measures for avoidance of rare plants during Project construction and operation that result from recent or pending botanical surveys.
- All mitigation commitments should be included in the ROD.

Air Quality

We recognize the FEIS has included a discussion of the localized cumulative impacts of projects that may have overlapping construction periods; however, the scope of the cumulative impact analysis in the FEIS remains geographically limited to focus on cumulative impacts within six miles of the Project. Determination of the affected environment should not be based on a predetermined geographic area, but rather on perception of meaningful impacts for each resource at issue. EPA disagrees that there is never overlap for sources separated by six miles. This would depend on the emissions, size of the source, and release height, among other criteria. For example, in our air permitting process, we require modeling of the significant impact area plus 50 kilometers out. Due to the serious nature of the PM_{10} and 8-hour ozone conditions in the Mojave Desert Air Basin, the cumulative effects study area could be the entire air basin because ozone precursors are reactive over hundreds of miles.

Recommendation:

- The response to comments on the FEIS should provide the rationale for limiting the scope of the cumulative impacts analysis to the specified local area. If the Project would affect the ability of other foreseeable projects to be permitted, the ROD and responses to comments on the FEIS should discuss this.

Alternatives Analysis

We were encouraged by the addition of the Mitigated Ivanpah 3 and Modified I-15 Alternatives for various reasons, including the potential to avoid the northern 433 acres of the proposed Project site, which has the highest concentrations of desert tortoise and rare plants and is the area that presents the greatest risk of potential stormwater damage. Additionally, Modified I-15 Alternative's location closer to the highway would allow for the reconfiguration of the Ivanpah Unit 3 site, which would allow major project facilities to co-locate while avoiding impacts to the northern portion of the proposed Project area. As a consequence, movement corridors for wildlife between mountainous areas north of the Project area would remain broad and relatively undisturbed (pg. 4.3-131). We recommend that BLM reconsider the Modified I-15 alternative as the preferred alternative because much of this alternative site is located below 2,750 feet in elevation and provides habitat that is less diverse and of lower quality than that of the proposed Project (pg. 4.3-71). Additionally, the Modified I-15 Alternative would have fewer anticipated impacts to desert tortoise and maintain more connectivity than the proposed Project (pg. 4.3-80 and A.2-26), further reduce stormwater impacts (pg. 8-7), and potentially impact fewer washes (at pg. 4.3-27).

We note that the FEIS indicates that the Modified I-15 Alternative is outside BLM's jurisdiction to select (pg. A.2-29) and is not considered to meet the applicant's objective (pg.

A.2-29). In light of the Council on Environmental Quality's guidance regarding consideration of alternatives outside the jurisdiction of the lead agency (Council on Environmental Quality's (CEQ) Forty Questions[1], #2a and #2b), we continue to recommend that off and 'near'-site alternatives (including off-site locations and environmentally preferable on-site alternatives) be given full consideration under NEPA. CEQ Regulations for implementing NEPA (40 CFR, Parts 1500 - 1508) state that the alternatives section of an EIS should "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly describe the reasons for their having been eliminated" (40 CFR, part 1502.14). *"In determining a reasonable range of alternatives, the focus is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical and feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant."* (CEQ Forty Questions, #2a)

Recommendation:

- Reconsider the Modified I-15 Alternative as the preferred alternative for the Project and fully justify the elimination of any less environmentally damaging alternatives than the alternative ultimately selected.

Other Comments

In light of the decision to separate CEC's and BLM's environmental review processes, the responses to FEIS comments should discuss the resolution procedure that will be employed if BLM's FEIS presents a preferred alternative that differs from what CEC approves through its process.

Recommendation:

- Clarify, in responses to FEIS comments, how BLM's and CEC's now separated alternative selection processes will be reconciled.

The SDEIS indicated that because the project proponent "did not apply for nor did it hold third party sales contracts for reduced project output at the time of the DEIS, the Reduced Acreage Alternative was not developed and evaluated in detail".

Recommendation:

- Discuss, in responses to FEIS comments, the changes that have resulted since the DEIS was issued that have resulted in the ability of the project proponent to consider a reduced project output.

---

[1]Forty Most Asked Questions Concerning CEQ's NEPA Regulations, 40 CFR Parts 1500-1508, Federal Register, Vol. 46, No. 55, March 23, 1981.

"Morrison, Dennis W CTR US USA FORSCOM" <dennis.w.morrison@us.army.mil>
08/06/2010 10:02 AM
To
<caisegs@blm.gov>
cc

bcc

Subject
Ivanpah Solar Electric Generation System (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: FOUO

You are about to devastate the tortoise population of the Ivanpah area. 214,000 heliostats? Located on 4,073 acres of public land? Digging up burrows and moving Tortoises? They tried this same idea at Fort Irwin with disastrous results. This kind of game playing needs to stop. Every square inch of public land is up for sale as far as you're concerned, and we're the ones paying for it. The corporation is attracted by free land and Stimulus law to underwrite their project so even if they go bankrupt, we, the American taxpayers will get stuck with the bill. We provide the public land, we underwrite the project, we take the risk, we pay the higher rates, we pay for the new power lines, we live with the eyesore and health issues, and we eat the cost of lower property values. They get the profits and politicians get to point to all the new temporary construction jobs they created. What does the BLM get???

DON'T DO THIS!

Dennis Morrison
Mojave Desert Resident/Public Land User

Classification: UNCLASSIFIED
Caveats: FOUO

PP-CA-ISEGS-10-01 (Ivanpah)

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

August 11, 2010

Ms. Sandra McGinnis or Mr. George Meckfessel, Planning and Environmental Coordinators
UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
1303 South Highway 95
Needles, CA 92363

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Attn: Brenda Williams
Director (210)
P.O. Box 66538
Washington, D.C. 20035

Re: SCH#2010084001; NEPA/CEQA Notice of Completion; Final Environmental Impact Statement (EIS) for the "**Proposed California Desert Conservation Area Plan Amendment / Final Environmental Impact Statement, Ivanpah Solar Electric Generating System Project (Approximately 400MW of Electricity to be generated using Solar Thermal Technolgy, constructed by subsidiaries of BrightSource Energy; Estimated Surface Disturbance on 4,073-acres);**" located in the eastern Mojave Desert near the Ivanpah Dry Lake and about ten miles west of Community of Primm, Nevada; located in San Bernardino County, California.

Dear Ms. McGinnis, Mr. Meckfessel and Ms. Williams:

The Native American Heritage Commission (NAHC) is the California state 'trustee agency' pursuant to Public Resources Code §21070 for the protection and preservation of California's Native American Cultural Resources.

The Native American Heritage Commission withholds a determination of opposition or support of this project subject to the completion by the Bureau of Land Management of the Tribal Consultation required by the National Historic Preservation Act, Section 106 process. The NAHC did perform a Sacred Lands File (SLF) search in the NAHC SLF Inventory, established by the Legislature pursuant to Public Resources Code §5097.94(a) and Native American Cultural Resources **were not identified** within one-half mile of the APE identified for the project. However, Native American cultural resources are in close proximity to the APE.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the culturally affiliated tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource.. Also, the NAHC recommends that a Native American Monitor or Native

American culturally knowledgeable person be employed whenever a professional archaeologist is employed during the 'Initial Study' and in other phases of the environmental planning processes.

Furthermore the NAHC recommends that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation (OHP) Coordinator's office (at (916) 653-7278, for referral to the nearest OHP Information Center of which there are 10.

Consultation with tribes and interested Native American tribes and interested Native American individuals, as consulting parties, on the NAHC list ,should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f]*et se),* 36 CFR Part 800.3, the President's Council on Environmental Quality (CSQ; 42 U.S.C. 4371 *et seq.*) and NAGPRA (25 U.S.C. 3001-3013), as appropriate. The 1992 *Secretary of the Interior's Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including *cultural landscapes. This project site is certainly within the 'cultural landscape of the Mojave. Furthermore,* consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e) and the National Environmental Policy Act (42. U.S.C. 4321-43351).

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

The authority for the SLF record search of the NAHC Sacred Lands Inventory, established by the California Legislature, is California Public Resources Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code §6254.10). The results of the SLF search are confidential. However, Native Americans on the attached contact list are not prohibited from and may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance' may also be protected the under Section 304 of the NHPA or at the Secretary of the Interior' discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C, 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibly threatened by proposed project activity.

The NHPA, Section 106 and the CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens. Although tribal consultation under the California Environmental Quality Act (CEQA; CA Public Resources Code Section 21000 – 21177) is 'advisory' rather than mandated, the NAHC does request 'lead agencies' to work with tribes and interested Native

American individuals as 'consulting parties,' on the list provided by the NAHC in order that cultural resources will be protected. However, the 2006 SB 1059 the state enabling legislation to the Federal Energy Policy Act of 2005, does mandate tribal consultation for the 'electric transmission corridors. This is codified in the California Public Resources Code, Chapter 4.3, and §25330 to Division 15, requires consultation with California Native American tribes, and identifies both federally recognized and non-federally recognized on a list maintained by the NAHC

Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that construction or excavation be stopped in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery until the county coroner or medical examiner (be contacted pursuant to California Government Code §27460, whether on federal or state land) can determine whether the remains are those of a Native American. . Note that §7052 of the Health & Safety Code states that disturbance of Native American cemeteries is a felony.

Again, Lead agencies should consider avoidance when significant cultural resources are discovered during the course of project planning and implementation.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Culturally Affiliated Native American Contacts

Cc: State Clearinghouse
California Energy Commission

Native American Contacts
San Bernardino County
August 11, 2010

San Manuel Band of Mission Indians
James Ramos, Chairperson
26569 Community Center Drive Serrano
Highland , CA 92346
(909) 864-8933
(909) 864-3724 - FAX
(909) 864-3370 Fax

AhaMaKav Cultural Society, Fort Mojave Indian
Linda Otero, Director
P.O. Box 5990 Mojave
Mohave Valley AZ 86440
lindaotero@fortmojave,
(928) 768-4475
(928) 768-7996 Fax

Chemehuevi Reservation
Charles Wood, Chairperson
P.O. Box 1976 Chemehuevi
Chemehuevi Valley CA 92363
chair1cit@yahoo.com
(760) 858-4301
(760) 858-5400 Fax

San Manuel Band of Mission Indians
Ann Brierty, Policy/Cultural Resources Departmen
26569 Community Center. Drive Serrano
Highland , CA 92346
abrierty@sanmanuel-nsn.
(909) 864-8933 EXT-3250
(909) 649-1585 - cell
(909) 862-5152 Fax

Fort Mojave Indian Tribe
Tim Williams, Chairperson
500 Merriman Ave Mojave
Needles , CA 92363
(760) 629-4591
(760) 629-5767 Fax

Fort Mojave Indian Tribe
Nora McDowell, Cultural Resources Coordinator
500 Merriman Ave Mojave
Needles , CA 92363
g.goforth@fortmojave.com
(760) 629-4591
(760) 629-5767 Fax

Colorado River Reservation
Ginger Scott, Acting ultural Contact
Route 1, Box 23-B Mojave
Parker , AZ 85344 Chemehuevi
symi@rraz.net
(928) 669-9211
(928) 669-5675 Fax

Serrano Nation of Indians
Goldie Walker
6588 Valaria Drive Serrano
Highland , CA 92346
(909) 862-9883

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and fed eral NAGPRA. And 36 CFR Part 800.3.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2010084001; NEPA Notice of Completion; Final Environmental Impact Statement (FEIS) for the Propsed California Desert Conservation Area Plan Amendment / Final Environmental Impact Statement (FEIS) for the IVANPAH SOLAR ELECTRIC GENERATING SYSTEM Project; In eastern San Bernard

Native American Contacts
San Bernardino County
August 11, 2010

Fort Mojave Indian Tribe
Esadora Evanston, Environmental Coordinator
500 Merriman Ave Mojave
Needles , CA 92363
region9epa@ftmojave.com
(760) 326-1112
(760) 629-4591
(760) 629-5767 Fax

Quenchan Indian Nation
Bridget Nash-Chrabascz, THPO
P.O. Box 1899 Quechan
Yuma , AZ 85366
b.nash@quechantribe.com
(928) 920-6068 - CELL
(760) 572-2423

Ah-Mut-Pipa Foundation
Preston J. Arrow-weed
P.O. Box 160 Quechan
Bard , CA 92222 Kumeyaay
(928) 388-9456

ahmut@earthlink.net

MOAPA Paiute Band of the Moapa Reservation
Attn: Cultural Resources Department
P.O. Box 56 Paiute
Moapa , NV 89025
(702) 865-2787
(702) 865-2875 - FAX

Las Vegas Paiute Tribe
Attn: Cultural Resources Department
1 Paiute Drive Paiute
Las Vegas , NV 89106
(702) 386-3926
(702) 383-4019 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and fed eral NAGPRA. And 36 CFR Part 800.3.

This list is only applicable for contacting local Native Americans for consultation purposes with regard to cultural resources impact by the proposed SCH#2010084001; NEPA Notice of Completion; Final Environmental Impact Statement (FEIS) for the Propsed California Desert Conservation Area Plan Amendment / Final Environmental Impact Statement (FEIS) for the IVANPAH SOLAR ELECTRIC GENERATING SYSTEM Project; in eastern San Bernard

Notice of Completion & Environmental Document Transmittal

Appendix C

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2010084001

Project Title: Proposed California Desert Conservation Area Plan Amendment /Final Environmental Impact Statement Ivanpah Solar Electric Generating System

Lead Agency: Bureau of Land Management
Contact Person: Sandra McGinnis
Mailing Address: 1303 South Highway 95
Phone: 760-326-7000
City: Needles
Zip: 92363
County: San Bernardino

RECEIVED
JUL 30 2010
Posted 8/3/10
STATE CLEARING HOUSE

Project Location:
County: San Bernardino
City/Nearest Community: Nipton, CA - Primm, NV
Cross Streets:
Zip Code:
Assessor's Parcel No.:
Section: Twp.: Range: Base:
Within 2 Miles: State Hwy #: I-15
Waterways: Ivanpah Dry Lake
Airports: Railways: Schools:

Document Type:

CEQA: ☐ NOP ☐ Draft EIR
☐ Early Cons ☐ Supplement/Subsequent EIR
☐ Neg Dec (Prior SCH No.)
☐ Mit Neg Dec ☐ Other

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☒ Final Document ☐ Other

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Development ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Subdivision, etc.) ☒ Other BLM ROW grant

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational
☐ Recreational
Total Acres (approx.) 230,000

☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☒ Power: Type Solar Power Tower MW 400
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☐ Other: Natural Resource Management

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☐ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☒ Biological Resources
☐ Coastal Zone
☐ Drainage/Absorption
☒ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☒ Forest Land/Fire Hazard
☒ Geologic/Seismic
☒ Minerals
☒ Noise
☐ Population/Housing Balance
☐ Public Services/Facilities
☒ Recreation/Parks
☐ Schools/Universities
☒ Septic Systems
☐ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☒ Solid Waste
☒ Toxic/Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☐ Wetland/Riparian
☒ Wildlife
☒ Growth Inducing
☒ Land Use
☒ Cumulative Effects
☐ Other

Present Land Use/Zoning/General Plan Designation:

Various dispersed recreation, transmission corridor, grazing

Project Description: *(please use a separate page if necessary)*

The ISEGS project is a 400 MW solar power tower generation project proposed on BLM administered lands in the Ivanpah Valley. The project would be made up of three solar fields with a shared administration building and construction staging areas. The project would disturb approximately 4,000 acres.

State Clearinghouse Contact:
(916) 445-0613

State Review Began: 08-03-2010

SCH COMPLIANCE 09-07-2010

Final/Review per Lead

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 2010084001

Please forward late comments directly to the Lead Agency

AQMD/APCD 33/21P

(Resources: 08/07)

Project Sent to the following State Agencies

X Resources
Boating & Waterways
Coastal Comm
Colorado Rvr Bd
X Conservation
X Fish & Game # 6
Delta Protection Comm
X Cal Fire
Historic Preservation
X Parks & Rec
Central Valley Flood Prot.
Bay Cons & Dev Comm.
X DWR
Cal EMA
Resources, Recycling and Recovery

Bus Transp Hous
Aeronautics
X CHP
X Caltrans # 8
Trans Planning
Housing & Com Dev
Food & Agriculture
Public Health

State/Consumer Svcs
General Services

Cal EPA
ARB: Airport Projects
ARB: Transportation Projects
X ARB: Major Industrial Projects
SWRCB: Div. Financial Assist.
SWRCB: Wtr Quality
X SWRCB: Wtr Rights
X Reg. WQCB # 6V
Toxic Sub Ctrl-CTC

Yth/Adlt Corrections
Corrections

Independent Comm
X Energy Commission
X NAHC
X Public Utilities Comm
State Lands Comm
Tahoe Rgl Plan Agency

Conservancy

Other:

Richard Montanucci
<rrmnt@clemson.edu>
09/06/2010 06:48 PM

To Ca690@ca.blm.gov, George_Meckfessel@blm.gov
cc
bcc
Subject Ivanpah Solar Project

Sept. 6, 2010

To Whom It May Concern:

Dear Sir/Madam,

Please consider this letter in opposition to the planned project site for the Ivanpah Solar Power Project. My concerns rest with the potential impact on the desert tortoise. At minimum some 36 tortoises will need to be translocated, although no final translocation plan is available.

These tortoises probably will die as a result of translocation. The desert is a severe environment and if the number of individuals exceeds the carrying capacity of the habitat, the excess will die from predation, exposure, or competition for food with resident tortoises.

Convincing scientific data are now available to demonstrate that, with few exceptions, translocation as a mitigation procedure is usually a failure. For example, during the last 15 years some 10,000 desert tortoises have been moved to the Large Scale Translocation Site (LSTS) in Clark County, Nevada. Yet based on surveys, there has been no measurable increase in numbers at the site. This is a clear indication that thousands of tortoises have died as a result of translocation. Observations by at least two field biologists reveal that dry washes in the higher areas of LSTS are a virtual graveyard, littered with the bleached bones and empty shells of numerous tortoises. Over the past several decades, tortoises have been moved around the Mojave Desert like pawns on a chessboard to accommodate one destructive project after another, and overall there has been a steady decline in tortoise populations due to habitat loss.

The Ivanpah population of tortoises is part of a genetically distinct assemblage of tortoises known to scientists as the Northeastern Mojave Evolutionarily Significant Unit (ESU). The cumulative impacts of projects in the North Ivanpah Valley would threaten about 25 percent of the tortoise habitat and would further imperil this ESU. It is important to protect this population segment in order to maximize survival chances of the species as a whole. I would welcome plans for alternate siting of this project in order to protect the tortoise and other wildlife species. Thank you for your consideration.

Sincerely,

Richard R. Montanucci
Associate Professor Emeritus
Dept. of Biological Sciences
132 Long Hall
Clemson University
Clemson, SC 29634-0314
Email: RRMNT@clemson.edu

Mike Vandeman <mjvande@pacbell.net>
08/18/2010 03:39 PM
To
caisegs@blm.gov
cc

bcc

Subject
Ivanpah Solar Electric Generating System Project

Gentlepersons:

1. This project is not an appropriate use of public land. The highest, best use of the land is for wildlife habitat, and that is what it should be used for. Extinction is FOREVER. Humans don't have the right to drive other species to extinction, or to deprive them of their homes, which amounts to the same thing.

2. It would cause unacceptable destruction of essential wildlife habitat for endangered and other species of plants, animals, and other living things, such as the Desert Tortoise.

3. Adequate, plentiful alternatives exist: there is plenty of space above roads, parking lots, buildings, etc. that is not being productively used and could be utilized to generate solar electricity.

Sincerely,

Mike Vandeman, Ph.D.
2600 Camino Ramon # 4e300i
San Ramon, CA 94583-5099

--

I am working on creating wildlife habitat that is off-limits to humans ("pure habitat"). Want to help? (I spent the previous 8 years fighting auto dependence and road construction.)

Please don't put a cell phone next to any part of your body that you are fond of!

http://home.pacbell.net/mjvande

Michael J. Connor, Ph.D.
California Director
P.O. Box 2364, Reseda, CA 91337-2364
Tel: (818) 345-0425
Email: mjconnor@westernwatersheds.org
Web site: www.westernwatersheds.org

Working to protect and restore Western Watersheds

September 3, 2010

BY US MAIL AND BY EMAIL

George Meckfessel
Planning and Environmental Coordinator
Bureau of Land Management
Needles Field Office
1303 South U.S. Highway 95
Needles, CA 92363

E-mail: <caisegs@ca.blm.gov>
<George_Meckfessel@ca.blm.gov>
<Raymond_Lee@ca.blm.gov>

RE:
CDCA Plan Amendment / Final Environmental Impact Statement for Ivanpah Solar Electric Generation System FEIS-10-31 dated July 2010

Dear Mr. Meckfessel:

Western Watersheds Project is pleased to submit the following comments on the CDCA Plan Amendment / Final Environmental Impact Statement for Ivanpah Solar Electric Generation System (CDCA Plan Amendment/FEIS). The closing date for public comment is September 3, 2010 so these comments are timely filed. Please incorporate and address our comments in the planning for this proposed power plant project.

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, research, public policy initiatives and litigation. Western Watersheds Project has a particular interest in the California Desert Conservation Area and our staff and members use and enjoy the project area's public lands and fragile resources. Western Watersheds Project has been actively involved in the environmental review for this project. Western Watersheds Project's involvement includes being an intervenor in the California Energy Commission licensing process for the project, and submission of comments on the draft FSA/DEIS (letter dated 02/11/10) and supplemental DEIS (letter dated 05/31/10) to the Bureau of Land Management.

The proposed power plant project would be located on 3,564 acres of relatively undisturbed public lands in California that are habitat for the state and federally listed desert tortoise, and that provide habitat for rare plant species and communities. The BLM is

considering two decisions: (a) whether or not to amend the CDCA Plan to allow the public lands at the ISEGS site to be used for solar energy development, and (b) whether or not to approve a right of way application.

We offer the following specific comments on the CDCA Plan Amendment/FEIS. Prior comments raised in our February 11, 2010 letter on the draft FSA/DEIS and our May 31, 2010 letter on the supplemental DEIS and have not been addressed in the FEIS. Accordingly, we hereby incorporate the full contents of both those letters by reference into these comments. Copies of the two letters are attached.

The CDCA Plan Amendment/FEIS Analysis of Alternatives Violates NEPA.

The National Environmental Policy Act (NEPA) implementing regulations specify that NEPA documents must analyze a full range of alternatives. 40 C.F.R. § 1502.14. The consideration of alternatives "is the heart of the environmental impact statement." NEPA requires agencies to "Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." NEPA directs agencies to "Include reasonable alternatives not within the jurisdiction of the lead agency." NEPA requires agencies to "Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated."

In the FEIS the BLM has failed to consider and analyze alternatives that would allow the project to proceed but would avoid impacts to desert tortoise, rare plants and other scarce and sensitive resources. In the initial Draft EIS, the BLM considered only two alternatives, a proposed action with a footprint of 4,064 acres and no action. The BLM analyzed two additional alternatives in a Supplemental Draft EIS: a "Mitigated Ivanpah 3 Alternative" and a "Modified I-15 Alternative". The three action alternatives reviewed in detail in the FEIS will have similar significant direct, indirect and cumulative impacts on desert tortoises, rare plants, and visual resources as the proposed action. In the FEIS, the BLM has adopted the "Mitigated Ivanpah 3 Alternative" as the proposed action.

The BLM has eliminated from detailed study alternatives that would avoid or minimize impacts to biological resources. Locating the project on private lands would obviously minimize impacts to public land resources. Despite NEPA's mandate to consider reasonable alternatives not within the jurisdiction of the lead agency, the BLM dismissed this alternative from detailed study on the grounds that the applicant would have to buy the land which would be costly and acquire multiple parcels which would be time-consuming. By this token, the BLM will never consider private land alternatives for projects.[1] This is not in keeping with the spirit or intent of NEPA.

The BLM also considered but dismissed an alternative proposed by Western Watersheds Project and others to site the ISEGS plant on Ivanpah Dry Lake playa. FEIS at 3-81. This "Ivanpah Playa Alternative" would avoid many of the project's impacts on desert tortoises, rare

[1] It also raises questions over the feasibility of acquisition of replacement habitat to mitigate impacts to biological resources.

plants and other sensitive resources, and minimize restoration costs by locating the project within the 35 square mile Ivanpah Dry Lake playa. The BLM dismissed this alternative on the grounds that it would not be economically feasible because of flooding issues and would be inconsistent with current management objectives for non-motorized recreation on the Dry Lake bed. The BLM provides no substantiation for its claim of lack of economic feasibility. As we pointed out, the I-15 freeway crosses the playa, as does a major electric power line; clearly the engineering challenges are neither insurmountable nor cost prohibitive. In addition, use of this location could result in considerable savings to the applicant in reduced mitigation costs. As to this alternative being inconsistent with management objectives for recreation, BLM could accommodate any need to change management objectives within the plan amendment process. As it is, the proposed CDCA Plan Amendment essentially converts 3,564 acres of public land that is class MUC limited and available for multiple use to a single use (solar power generation).

The BLM failed to consider alternatives to the proposed plan amendment such as designating the North Ivanpah Valley as an Area of Critical Environmental Concern (ACEC) that would have brought BLM into compliance with the recommendations of the 1994 Desert Tortoise (Mojave Population) Recovery Plan or that would make the Clark Mountain Grazing Allotment available for voluntary relinquishment to benefit resource conservation which would have made grazing allotment buyout available as a site-specific mitigation measure.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Desert Tortoise.

The proposed power plant project will have severe direct, indirect and cumulative impacts on California's population of Northeastern Mojave Evolutionarily Significant Unit ("ESU") desert tortoises. These impacts include destruction and loss of habitat, take of tortoises, habitat fragmentation, population fragmentation, loss of connectivity, and loss of viability. The tortoises in the Ivanpah Valley differ from other desert tortoise populations in California, and the population's limited range, overall importance to genetic diversity (Murphy *et al.*, 2007[2]), and behavioral adaptations underlie the need to conserve them. This is especially important given the threats posed by global climate change.

The FEIS, fails to provide crucial baseline information such as the amount of desert tortoise habitat in the Northeastern Mojave Recovery Unit in California, and fails to adequately document the project's impacts on this resource. Without an adequate description of the ESU, a full analysis of the impacts of the proposed project is impossible. Nor is a meaningful comparison of alternatives or the development of adequate mitigation measures possible.

The North Ivanpah Valley accounts for about 24% of Northeastern Mojave desert tortoise ESU habitat in California. The NEMO Plan identifies that there are 27,300 acres of BLM-managed public lands in the North Ivanpah Valley. The proposed action would develop 3,564 acres which is 13% of the public land in the North Ivanpah Valley. Thus, the direct footprint of

[2] 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, *Gopherus agassizii*. Chelonian Conservation and Biology 6(2): 229–251.

the proposed project would consume 4-5% of the Northeastern Mojave ESU desert tortoise habitat in California.

Mitigating for direct impacts on this scale is daunting. However, other major projects are also being proposed in the North Ivanpah Valley not the least of which are an additional power plant next to ISEGS and the DesertXpress railway. In the face of the massive cumulative habitat loss and fragmentation that will occur if all three projects proceed, it is difficult to imagine how a viable tortoise population could persist in the North Ivanpah Valley. As such, the cumulative impacts threaten to eliminate nearly a quarter of the range of the Northeastern Mojave ESU in California.

The NEPA documents remain unclear as to how many tortoises will be directly affected the proposed action. The FEIS states without further documentation, "some estimates suggest that up to 50 tortoises may reside in the project area." FEIS at 4.3-44. No clarification is given as to whether this is an estimated number of adult tortoises or includes desert tortoises of all age classes.

Connectivity between desert tortoise populations is essential to maintain gene flow and genetic heterogeneity (Hagerty, 2008[3]). Disruption of this connectivity poses a threat to the genetic diversity of the Mojave population as a whole. The FEIS mentions connectivity but provides no discussion or analysis. The FEIS provides no analysis of impacts to connectivity between the Northeastern Mojave and Eastern Mojave desert tortoise ESUs, which as we pointed out is believed to be via Mountain Pass. The FEIS provides no analysis of connectivity between Californian and Nevadan Northeastern Mojave populations. California's Ivanpah Valley desert tortoise population is increasingly threatened with isolation from desert tortoises in the rest of the Northeastern Mojave Recovery Unit to the north by existing and proposed solar power plants and other developments in Nevada's Primm Valley.

Fragmentation of occupied desert tortoise habitat results in smaller, isolated desert tortoise populations that become increasingly susceptible to negative effects and have decreased viability. Fragmentation is particularly problematic when population densities are low. The FEIS recognizes that the proposed action will fragment desert tortoise habitat but does not quantify the degree of fragmentation nor does it provide an analysis of the viability of the fragmented desert tortoise populations. Nor does the FEIS address cumulative fragmentation effects.

The FEIS describes a new desert tortoise translocation proposal for the ISEGS project that has had no public review whatsoever. Tortoises on the ISEGS site that need to be moved more than 500 meters would be translocated to the National Park Service's Mojave National Preserve. This will apparently involve a two-step process in which tortoises will be moved to a holding facility and eventually released on yet-to-be identified sites on the Preserve. Translocation of desert tortoises is controversial and carries a high risk not just to the translocated animals but to resident tortoises at the recipient sites. The DRECP's Independent Science Advisors consider translocation of desert tortoise to be an ineffective mitigation action

[3] Hagerty, B. 2008. Ecological Genetics of the Mojave Desert Tortoise. PhD Dissertation. University of Nevada, Reno. 244 pp.

in their recent draft recommendations.[4] Major risks of translocation were clearly delineated in the 1994 Recovery Plan and include: (1) the tendency of the released desert tortoises to travel or wander from the site or attempt to return home; (2) increased vulnerability to predators; (3) the potential for agonistic responses from resident or host desert tortoises; (4) the potential for introducing or spreading diseases; and, (5) genetic pollution.

All of these risk factors need careful consideration especially given the critical importance of conserving the Mojave National Preserve's Ivanpah Valley tortoises in the light of the cumulative effects of ISEGS and other solar projects on the rest of California's small Northeastern Mojave desert tortoise population.

The Recovery Plan recommends "All translocatees should be genotyped unless the desert tortoises are to be moved only very short distances or between populations that are clearly genetically homogeneous" (FWS 1994[5]). The Northeastern Mojave Recovery Unit is the most heterogeneous of the recovery units and includes at least three mtDNA haplotypes (FWS 1994 at 21; Britten et al, 1997[6]; Hagerty 2008). Most of the tortoises in the Ivanpah Valley are South Las Vegas subtype; however, at least one tortoise of the Amargosa subtype was found in the project vicinity. It is unclear if this anomaly is through natural or human agency. The new translocation proposal adds the increased risk of genetic pollution to the impacts the ISEGS project will have on the threatened desert tortoise.

The Mojave National Preserve's General Management Plan does not consider using preserve lands as recipient sites for translocated desert tortoises. 36 CFR 2.1 generally prohibits "Introducing wildlife, fish or plants, including their reproductive bodies, into a park area ecosystem". It is therefore unclear how the National Park Service could accept the tortoises without doing its own National Environmental Policy Act analysis. This new proposal involving an additional government agency raises new issues that have not been addressed or analyzed in this or any other NEPA document for the project.

Desert tortoises that are less than 500 meters from the western and northern project boundary will be moved outside the project area to the west and north, respectively. FEIS at 4.3-48. No tortoises would be moved to the east or south of the ISEGS project area, "due to anticipated future projects, and the desire to avoid the potential of needing to relocate tortoises twice (once for ISEGS and then again associated with proposed future projects)." FEIS at 4.3-48. Yet, as the BLM is well aware the DesertXpress railway is proposed north of the project site. Relocating tortoises north of the project would thus not avoid the potential need to relocate those tortoises a second time. Further, this northern area is rockier with less friable soils that are

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[4] DRECP Independent Science Advisors. 2010. Public Review Draft Recommendations of Independent Science Advisors for The California Desert Renewable Energy Conservation Plan (DRECP) Prepared For Renewable Energy Action Team: California Department of Fish & Game, U.S. Fish & Wildlife Service, U.S. Bureau of Land Management, California Energy Commission. DRECP-1000-2010-008 August 2010. 108 pages plus appendices.

[5] Fish and Wildlife Service. 1994. Desert Tortoise (Mojave Population) Recovery Plan. U.S. Fish and Wildlife Service, Portland, Oregon. 73 pages plus appendices.

[6] 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, *Gopherus agassizii*, in the northeastern Mojave Desert. Copeia 1997: 523-530.

potentially less suitable for burrowing which would further reduce the suitability of this area for desert tortoise translocation.

Although the Northeastern Mojave ESU desert tortoises will be impacted, the proposed mitigation for the proposed action does not require acquisition of replacement habitat within the Northeastern Mojave recovery unit. This contradicts longstanding BLM policy to "Mitigate the impacts of energy and mineral development in tortoise habitat to the extent possible".[7] The FEIS leaves open the question of whether the proposed mitigations merit the concurrence of California Department of Fish and Game ("CDFG has not yet provided concurrence that this proposed approach and level of mitigation funding would be adequate to fulfill their full mitigation standard." FEIS at 4.3-3.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Wild Horse and Burros.

Although the BLM has established the AML for burros in the Clark Mountain HMA at zero, there are many burros (and at least one wild horse) that use the proposed project site. If the project site is fenced the burros and wild horse will be displaced. They may concentrate in other areas resulting in impacts to other resources offsite. BLM cannot simply pronounce that because they have established a zero AML, wild horses and burros will not be impacted by any of the alternatives. BLM must address the actual impacts caused by the project.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Bighorn Sheep.

The proposed ISEGS project will remove 3,564 acres of bajada foraging habitat for bighorn sheep, and may impact migration and long distance movements between mountain ranges. The FEIS discusses creation of a new water source in the eastern part of the Clark Mountain range or in the State Line Hills outside of designated wilderness as mitigation. "This artificial water source would supplement existing supplies that may be a limiting factor to local bighorn sheep populations. Further, the water source likely would shift foraging opportunities into other areas within the lower elevations of the mountains, and away from areas of the bajada lost to ISEGS facilities and the zone of disturbance on the north. This water source would also serve to attract the bighorn during seasonal movements and keep them in the mountainous portion of the wildlife corridor." FEIS at 4.3-70. Nowhere in the FEIS is it explained how creation of this new water source will mitigate for loss of foraging habitat (other than speculation that a new water source might make other areas available for foraging) or how it would mitigate impacts to migration. Nor does the FEIS review the potential negative impacts that creating a new water source may have on desert tortoise through providing a new foraging area for predatory ravens.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Other BLM Sensitive Species.

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[7] 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 Rangewide Plan. USDI Bureau of Land Management, November 1988. 23 pp.

The NEMO Plan set the goal for special status species as "Populations and their habitats are sufficiently distributed to prevent the need for listing" (NEMO Plan at 2-6). The FEIS fails to document how impacts to sensitive and rare wildlife such as gila monsters, burrowing owl, golden eagles, other bird species, bats, and other wildlife will be mitigated. This is particularly problematic for species such as the gila monster which has such a limited distribution in the area.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Rare Plants.

Rusby's Desert-Mallow (*Sphaeralcea rusbyi* var. *eremicola*) is a very rare plant and BLM sensitive species that occurs on the project site. The NEMO Plan set the goal for special status species as "Populations and their habitats are sufficiently distributed to prevent the need for listing" (NEMO Plan at 2-6). The FEIS provides too little analysis of impacts, ignores habitat fragmentation which can both isolate Rusby's Desert-Mallow occurrences and decrease the total available habitat for remnant occurrences, and fails to provide adequate information about the proposed mitigation strategies. Siting the project on Ivanpah Dry Lake playa would have avoided impacts to this rare plant.

As of the August 24, 2010 CEC Evidentiary Hearing, a final version of the Condition of Certification for Special-Status Plant Impact Avoidance and Minimization (BIO-18) remains unresolved. This adds more uncertainty to the adequacy of proposed mitigations for the impacts of this project.

The CDCA Plan Amendment/FEIS Fails to Take NEPA's Requisite "Hard Look" at Impacts to Water Resources.

The project will draw on ground water, most of which will be used for mirror washing. The project will substantially alter the existing drainage pattern of the project site. The project site is in an area of the Ivanpah Ground Water Basin where substantial declines in groundwater levels have already been observed. Groundwater discharge from the Ivanpah Ground Water Basin occurs mainly through pumping and underflow towards the Las Vegas Valley. FEIS at 4.10-12. Although the FEIS claims that the project's ground water draw is exceeded by the natural recharge rate of the Basin, the FEIS fails to examine any cumulative effect on the underflow to the Las Vegas Valley, which is in a serious overdraft.

The CDCA Plan Amendment/FEIS Violates the ESA.

Section 2(c) of The Endangered Species Act (ESA) explicitly and clearly states, "It is further declared to be the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act." As a Federal agency, the BLM is bound by this policy. It is therefore the BLM's job to ensure that it considers and evaluates all data relating to impacts to listed species from the projects it is evaluating. In response to ours and others concerns relating to desert tortoise translocation, the BLM responded, "The Biological Assessment includes an evaluation of impacts to desert tortoises, including those associated with the

translocation of individuals. It is the responsibility of the USFWS to review the document and determine, based on their expertise, whether the conclusions reached within the Biological Assessment are valid. If the USFWS agrees with the findings of the Biological Assessment, they will issue a Biological Opinion, which may include additional mitigation or conservation measures. Alternatively, if the USFWS determines there are substantive residual impacts, even with the application of additional mitigation measures, they will issue a jeopardy opinion in the Biological Opinion that would prevent the Project from moving forward as proposed." FEIS at A.1-133. It is the BLM's job to seek to conserve listed species and thus to ensure that impacts are mitigated to the extent practicable and that the Fish and Wildlife Service are fully informed with respect to a project's impacts. It is not appropriate for the BLM to simply dismiss valid and significant concerns on the grounds that the USFWS is the one making the jeopardy/non-jeopardy call.

The CDCA Plan Amendment/FEIS Violates FLPMA.

The Federal Land Policy Management Act (FLPMA) guides the BLM's management and uses of public lands. 43 U.S.C. § 1732(a) directs that these lands be managed under principles of multiple use and sustained yield. The project will eliminate multiple use on 3,564 acres of public lands in the CDCA and will create a de facto industrial zone. The adoption of the proposed plan amendment will change the multiple-use character of these lands which currently provides habitat for the threatened desert tortoise, rare and sensitive plants, grazing, and off-road vehicle routes in favor of a single use that will completely displace other uses on the proposed site.

BLM has failed to conduct an adequate inventory of the resources of the affected lands as required by 43 U.S.C. § 1711(a). It does not even know how many desert tortoises are present on the project site. Without this baseline inventory, BLM cannot ensure that its decisions will prevent unnecessary and undue degradation of the public's lands in violation of FLPMA sections 1732(b) and 1732(d)(2)(a).

The CDCA Plan Amendment/FEIS Does Not Comply with the Land Use Plan and BLM Policy.

The NEMO Plan's mitigation for Category III habitat applies to projects of less than 100 acres. NEMO at 2.27. The proposed action area is <u>nearly forty times the maximum acreage for projects covered under the NEMO Plan</u>. Thus, the BLM cannot simply tier off the NEMO Plan's mitigation guidance but must fully analyze the direct, indirect and cumulative impacts to the Northeastern Mojave desert tortoise population.

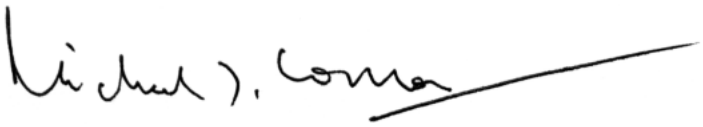
BLM Handbook 1745 - *Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants* - requires that "Decisions for making introductions, transplants, or reestablishments should be made as part of the land use planning process (see BLM Manual Section 1622). Releases must be in conformance with approved RMPs. <u>A Land Use Plan Amendment must be prepared for proposed releases if management direction is not provided in the existing Land Use Plan</u> (see BLM Manual Section 1617, emphasis added)." The two new proposed alternatives and the other projects proposed for the project area will result in large-

scale movement and translocation of desert tortoises. There is no consideration in the California Desert Conservation Area Plan as amended by the NEMO Plan for desert tortoise translocations on this scale. Therefore, a plan amendment is required to comply with BLM policy.

In summary, the BLM has failed to analyze a reasonable range of alternatives in the FEIS, has failed to take a hard look at the environmental impacts of the proposed project and plan amendment, and has failed to demonstrate that proposed mitigations are adequate to compensate for the impacts. The BLM has no basis for making informed decisions without this basic information. Unless the BLM undertakes a significant revision to the FEIS and recirculates the revised document for public review, the BLM cannot approve the proposed CDCA Plan Amendment and must deny the Right of Way application.

Please keep Western Watersheds Project informed of all further substantive steps for the ISEGS project analysis. If you have any questions, please feel to call me at (818) 345-0425 or e-mail me at <mjconnor@westernwatersheds.org>.

Sincerely,



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Attachments:

February 11, 2010 letter from Western Watersheds Project to George Meckfessel, BLM Needles Field Office RE: Draft Ivanpah Solar Electric Generation System Environmental Impact Statement and the Draft California Desert Conservation Area Plan Amendment. 15 pp.

May 31, 2010 letter from Western Watersheds Project to George Meckfessel, BLM Needles Field Office RE: Supplemental Draft Environmental Impact Statement for Ivanpah Solar Electric Generation System dated April 13, 2010 (DES-09-46). 7 pp.

ATTACHMENT 1

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Working to protect and restore Western Watersheds

February 11, 2010

BY US MAIL AND BY EMAIL

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RE: Draft Ivanpah Solar Electric Generation System Environmental Impact Statement and the Draft California Desert Conservation Area Plan Amendment dated November 10, 2009.

Dear Mr. Meckfessel:

Western Watersheds Project is pleased to provide the following comments on the Draft Ivanpah Solar Electric Generation System Environmental Impact Statement and the Draft California Desert Conservation Area Plan Amendment ("FSA/DEIS"). The closing date for public comment is February 11, 2010 so this letter is timely.

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, research, public policy initiatives and litigation. WWP has a particular interest in the California Desert Conservation Area and our staff and members use and enjoy the project area's public lands and fragile resources.

The proposed power plant project would be located on relatively undisturbed public lands in California that are habitat for the state and federally listed desert tortoise, and that provide habitat for rare plant species and communities. The proposed project will have significant direct, indirect and cumulative impacts on desert tortoises, rare plants, and visual resources. The BLM fails to consider and analyze alternatives that would allow the project to proceed without impacting desert tortoises, rare plants, and visual resources. As we discuss below, BLM's documentation of the impacts of the proposed action is inadequate. The DEIS fails to identify, document and analyze specific mitigation measures. Based on our review of the BLM's DEIS, it seems unlikely that the general mitigation measures proposed would reduce the environmental impacts of the proposed action to less than significant.

(1) Alternatives.

The consideration of alternatives "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. The NEPA implementing regulations specify that NEPA documents must analyze a full range of alternatives. Based on the information and analysis presented in the sections on the Affected Environment (40 C.F.R. § 1502.15) and the Environmental Consequences (40 C.F.R. § 1502.16), the NEPA document should present the environmental impacts of the proposed action and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. The regulations specify that agencies shall:

> (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
> (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
> (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
> (d) Include the alternative of no action.
> (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
> (f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

In this case, the BLM has considered only two alternatives, granting the right-of-way (the "proposed action") and not granting the right-of-way ("no action"). This is an entirely inadequate range of alternatives and violates both the letter and spirit of NEPA. This is especially so given the specific requirement to "Include reasonable alternatives not within the jurisdiction of the lead agency" since the CEC considers multiple alternatives in the associated FSA.

Because of the scale of the project it is unlikely that minor changes in footprint would reduce the direct, indirect, and cumulative effects of the project to less than significant. Neither the BLM nor the CEC considered alternative sites that would avoid significant impacts to desert tortoise but that would allow the project to proceed. One such location within the immediate project vicinity that would avoid desert tortoise habitat is Ivanpah Dry Lake bed. This alternative site location was raised at public meetings, was proposed by the Sierra Club in its June 22, 2009 letter, was referenced by CDFG in its October 27, 2009 letter, and should have been considered in the FSA/DEIS. While construction of the power plant at this site may require some additional engineering to accommodate flooding, the lake bed is crossed by both a freeway (I-15) and a power line so such accommodation is clearly possible. There are proposals to locate solar power plants on and adjacent to dry lake beds in other areas of the CDCA. Locating the power plant on the lake bed by the state line would minimize impacts to visual resources since it would be closer to existing developments, would avoid desert tortoise habitat, and would avoid impacts to rare plants. Restoration of the dry lake bed would likely be much easier once the plant is decommissioned. The lake bed covers 35 square miles and provides ample space to

accommodate existing recreational uses and the proposed ISEGS project. The BLM should consider this alternative in a supplemental draft EIS.

(2) Desert Tortoise.

The proposed power plant project will have severe direct, indirect and cumulative impacts on California's Northeastern Mojave tortoise population. The impacts include destruction and loss of habitat, take of tortoises, habitat fragmentation, population fragmentation, loss of connectivity, and loss of viability.

Significance of the Northeastern Mojave Population

The 1994 *Desert Tortoise (Mojave Population) Recovery Plan* recognized six Recovery Units within the listed Mojave desert tortoise population (USFWS 1994). The recovery units are defined as geographic areas that harbor Evolutionarily Significant Units (ESU) or evolutionarily distinct populations of desert tortoise. An ESU is a population, or group of populations, that represents significant adaptive variation within the species (USFWS 1994). The six desert tortoise ESUs were identified on the basis of genetic, morphological, behavioral, and ecological data. Subsequent detailed genetic analysis has offered independent support for the original ESU designations (Murphy et al, 2007). Five of the six ESUs occur wholly or partly in California. The proposed ISEGS site lies within the Northeastern Mojave Recovery Unit. This recovery unit extends from the Ivanpah Valley in California through Nevada and into extreme southwestern Utah and northwestern Arizona (USFWS 1994 Figure 9). The tortoises in the Recovery Unit shows some degree of genetic heterogeneity (Lamb *et al.*, 1989; Britten et al, 1997; USFWS 1994, USFWS 2008) consistent with natural barriers. The Recovery Unit is also heavily fragmented by human development and includes the greater Las Vegas conurbation.

The FSA/DEIS fails to provide crucial baseline information such as the amount of habitat in the Northeastern Mojave Recovery Unit in California, and fails to adequately document impacts to this resource. Without an adequate description of the ESU, a full analysis of the impacts of the proposed project is impossible, nor is a meaningful comparison of alternatives or the development of adequate mitigation measures possible.

In California, the Northeastern Mojave desert tortoises are restricted to the Ivanpah Valley with the boundaries marked by the Clark, Ivanpah, and New York Mountains. The California Natural Diversity Database (CNDDB) estimates the size of the desert tortoise habitat within the Recovery Unit in California at 184,519.6 acres (CNDDB 2009). The CNDDB polygon excludes most of the Ivanpah Dry Lake bed but includes Interstate 15, Nipton Road, Ivanpah Road, Nipton, Ivanpah, the railroad, the Primm golf course, some mountainous terrain and other unsuitable habitat (see CNDDB 2009b for a map showing the polygon). It thus considerably overestimates the amount of Northeastern Mojave desert tortoise habitat in California. Based on the CNDDB polygon the North Ivanpah Valley accounts for about 24% or almost a quarter of all desert tortoise habitat in the Northeastern Mojave Recovery Unit in California.

In 1988, the BLM began categorizing desert tortoise habitat under its range wide plan for desert tortoise habitat management (Spang *et al*, 1988). The North Ivanpah area was categorized as category I habitat and was managed as such until the signing of the ROD for the NEMO Plan Amendment in December 2002. The *Desert Tortoise (Mojave Population) Recovery Plan* included the North Ivanpah Valley within the proposed Ivanpah DWMA (USFWS 1994 at 41). The 1994 Recovery Plan included the North Ivanpah Valley in its proposed Ivanpah DWMA (see USFWS 1994 Figure 9). The NEMO Plan's Desert Tortoise Biological Team recommended consideration of the North Ivanpah Unit by the BLM for desert tortoise conservation in the NEMO Planning Area (NEMO Plan at A3). The 2002 EIS for the NEMO Plan recognized the value of the North Ivanpah Valley for desert tortoise and considered an alternative that included designating the North Ivanpah Unit as an Area of Critical Environmental Concern (ACEC) and part of the Ivanpah DWMA. However, the NEMO Plan's preferred and adopted alternative focused desert tortoise recovery on the Eastern Mojave Recovery Unit to the detriment of the Northeastern Mojave Recovery Unit in California and the North Ivanpah Valley was not included in the Ivanpah DWMA. Under the NEMO Plan, all desert tortoise habitat outside DWMAs was reclassified as Category III. The designation Category III does not mean that the habitat is degraded, contains low tortoise densities, or is unimportant it simply means it is not currently within a designated DWMA. The BLM manages all categorized desert tortoise habitat to protect desert tortoise with the management goal for Category III habitat being to limit tortoise habitat and population declines. The change in designation had no effect on the habitat *per se*. It remains good quality desert tortoise habitat. The basis for this change in designation was the BLM's focus on the Eastern Mojave ESU – "The preferred alternative is to propose that USFWS modify recovery unit boundaries so that all of NEMO is part of the Eastern Mojave Recovery Unit. Currently a portion of the planning area is in the Northern and Eastern Mojave Recovery Unit, but it forms a cohesive unit with the rest of the Eastern Mojave Desert tortoise habitat. Strategies for the Northern and Eastern Mojave Recovery Unit are focused firstly in areas northeast of Las Vegas, and secondarily, in an area north of Nipton Road in an area of Nevada that is not adjacent to the state line." NEMO Plan at 1-3.

Tortoises in the Ivanpah Valley differ from other desert tortoise populations in California (Lamb, 1986; Lamb *et al.*, 1989; Murphy *et al.*, 2007). Northeastern Mojave desert tortoises exhibit the greatest genetic differentiation of the five recognized units occurring in California (Murphy *et al.*, 2007). According to the DEIS, the desert tortoise population in the North Ivanpah Valley is also unique because it is the highest elevation at which this species is known to reside in the state (PSA/DEIS at 6.2-29).

The limited range, overall importance to genetic diversity, and behavioral adaptations underlie the need to conserve this desert tortoise population in California. This is especially important given the threats posed by global climate change. As the USFWS 2008 Draft Revised Recovery Plan notes, "Climatic regimes are believed to influence the distribution of plants and animals through species-specific physiological thresholds of temperature and precipitation tolerance. Warming temperatures and altered precipitation patterns may result in distributions shifting northward and/or to higher elevations, depending on resource availability (Walther et al. 2002). We may expect this response in the desert tortoise to reduce the viability of lands currently identified as "refuges" or critical habitat for the species." (USFWS 2008 at 133)

The 2002 EIS for the NEMO Plan recognized the value of the North Ivanpah Valley for desert tortoise. It considered an alternative (Alternative 2 "Desert Tortoise Recovery") that included designating the North Ivanpah Unit as an Area of Critical Environmental Concern (ACEC) and part of the Ivanpah DWMA. However, the NEMO Plan's preferred and adopted alternative focused on the Eastern Mojave Recovery Unit. Thus the FSA/DEIS cannot simply defer to the NEMO Plan's analysis since that plan did not address conservation of the Northeastern Mojave desert tortoise ESU nor did it address California State interests in these tortoises.

The 1984 status report tortoise density map of the Ivanpah Valley indicates that tortoise densities in the North Ivanpah Valley ranged from 20-100/sq mile with about half of the habitat (including the area of the power plant footprint) in the range of 50-100/sq mile (Berry et al., 1984 Plate 6-13). The most recent range wide monitoring survey report shows that tortoise densities within the Northeastern Mojave Recovery Unit are the lowest of the six recognized Recovery Units, with an estimated density of 1.7 tortoises/square km or 4.4 tortoises/square mile based on surveys conducted in 2007 (USFWS 2009). However, that estimate does not include the Ivanpah Valley which historically had some of the highest tortoise densities in the Northeastern Mojave Recovery Unit. The USFWS currently includes the Ivanpah Valley within its Ivanpah monitoring stratum; the majority of the stratum is located west of the Ivanpah Mountains in the Eastern Mojave Recovery Unit (see Figure 7 in USFWS 2009). For the 2007 survey, only one of the sixteen transects was within the Ivanpah Valley. Both factors make using the Ivanpah monitoring stratum data problematic for estimating tortoise densities in the Ivanpah Valley. There is a permanent study plot located in the southern end of the valley in an area that was identified as having a high tortoise density in the 1984 status report (Berry et al., 1984 Plate 6-13). The study plot population declined between 1986 and 2002. More recent density estimates are not yet available.

Impacts

Habitat Loss

The footprint of the proposed power plant will consume some 4,073 acres (about 6.4 square miles) of desert tortoise habitat. Based on the CNDDB data referenced above, this amounts to 2.2% of the Northeastern Mojave Recovery Unit in California. Since the CNDDB acreage is an overestimate, the actual percentage loss is higher and may be considerably higher. The NEMO Plan identifies the North Ivanpah Valley as consisting of approximately 29,110 acres, of which about 27,300 acres are BLM-managed public lands (NEMO Plan at A-3). Based on that data the power plant would consume 14% of the North Ivanpah Valley Unit and 15% of the public land. Since the North Ivanpah Valley accounts for 24% of the habitat identified in the CNDDB, the footprint may consume 4-5% of the actual Northeastern Mojave ESU desert tortoise habitat in California.

Mitigating for direct impacts on this scale is difficult. However, other major projects are also being proposed in the North Ivanpah Valley not the least of which are an additional power plant and the DesertExpress railway. In the face of the massive cumulative habitat loss and fragmentation that will occur if these projects proceed, it is difficult to imagine how a viable

tortoise population could persist in the North Ivanpah Valley. As such, the cumulative impacts threaten to eliminate nearly a quarter of the range of the Northeastern Mojave ESU in California.

Take of Tortoises

The FSA/DEIS is unclear as to how many tortoises will be directly affected by the proposed power plant and cites only the numbers of animals seen in various surveys. Table 5 of the August 2009 survey report (Supplemental Data Response, Set 2I at 9) provides estimates of the adult tortoise densities on the Ivanpah 1, Ivanpah 2 and Ivanpah 3 sites for comparison with the later surveys performed in proposed translocation areas. As was revealed at the recent CEC Hearing that table is incorrect. Based on the corrected data, the estimated abundances are 2.9 tortoises/sq km on Ivanpah 1, 1.7 tortoises/sq km on Ivanpah 2, and 2.6 tortoises/sq km on Ivanpah 3. These values are comparable to or higher than the 1.7 tortoises/square km estimated from surveys of conservation areas within the Recovery Unit conducted during the range-wide line-distance sampling effort (USFWS 2009). The estimated densities are about the twice the number of adult tortoises encountered during surveys. Thus the estimated number of tortoises on the project site is approximately 50 adults with an unknown number of young. This does not include the unknown number of resident tortoises at the proposed translocation site that may be affected by the translocation nor tortoises that may be impacted by the increased use of roads in the area.

Connectivity

Connectivity between desert tortoise populations is essential to maintain gene flow and genetic heterogeneity. The FSA/DEIS mentions connectivity but provides no discussion or analysis. The FSA/DEIS at 6.2-57 states that connectivity "will be discussed in more detail below". Connectivity is then included in the list at FSA/DEIS 6.2-72 but no further detail, discussion or analysis is provided.

According to the *Draft Revised Desert Tortoise Recovery Plan* (at 46), connectivity between the Northeastern Mojave and Eastern Mojave desert tortoise ESUs is provided by the Mountain Pass area in California. Disruption of this connectivity poses a threat to the genetic diversity of the Mojave population as a whole. Because the proposed project will impact tortoises in the area identified as providing connectivity, impacts to connectivity between the tortoises in the Northeastern Mojave Recovery Unit and the adjacent Eastern Mojave Recovery Unit must be considered and fully addressed.

The Ivanpah Valley desert tortoise population is threatened with isolation from tortoises in the rest of the Northeastern Mojave Recovery Unit by existing and proposed developments in Nevada's Primm Valley. The BLM must also consider connectivity between the Ivanpah Valley desert tortoise population and the rest of the Northeastern Mojave ESU.

Fragmentation

Fragmentation of occupied desert tortoise habitat results in smaller, isolated desert tortoise populations that become increasingly susceptible to negative effects. Fragmentation is particularly problematic when population densities are low. Fragmentation decreases viability and results in isolated "pockets" of desert tortoises that are at greater risk of extirpation from stochastic events. The FSA/DEIS mentions fragmentation of habitat but does not quantify the

degree of fragmentation nor does it provide an analysis of the viability of the fragmented desert tortoise populations. The proposed ISEGS site bisects the North Ivanpah Valley and will directly fragment the existing breeding population. Indirect effects of the proposed project such as increased use by vehicles and "improvement" of dirt roads will lead to further fragmentation.

The Ivanpah Valley desert tortoise population is threatened with isolation from tortoises in the rest of the Northeastern Mojave Recovery Unit by existing and proposed developments in the Primm Valley in Nevada. The proposed project will contribute to the fragmentation effects of these proposed and existing developments. These cumulative fragmentation effects must be considered and addressed.

Translocation

The proposed project and the other projects proposed for the project area will require the large-scale movement and translocation of desert tortoises within the North Ivanpah Unit. Translocation of desert tortoises is highly controversial as witnessed with the BLM's withdrawal of its "*Environmental Assessment for the Translocation of Desert Tortoises onto Bureau of Land Management and Other Federal Lands in the Superior-Cronese Desert Wildlife Management Area, San Bernardino County, California Bureau of Land Management Environmental Assessment*" (CA-680-2009-0058) immediately following the close of the public comment period. There is no consideration in the CDCA Plan for large-scale desert tortoise translocation. Therefore, the BLM must include a detailed translocation plan for the project in its NEPA documentation.

No final translocation plan has been made available for to the public to review. The BLM must make this available for public comment prior to issuing its decision. The project applicants have identified four sites west of the proposed project as possible translocation sites. However, the northernmost of these is within the footprint of the proposed railway line and would not appear to be suitable for that reason alone. The tortoise densities on these proposed translocation sites are unknown since adequate surveys have not been performed. However, if the tortoise densities are comparable to those on the project site then translocation is likely to double the densities on the translocation sites. If the tortoise densities on the proposed translocation sites are lower than the project area, the ecological conditions underlying this need to be examined and explained.

The surveys on the translocation sites referenced in the DEIS were performed outside the protocol season (PSA/DEIS at 6.2-50). The USFWS protocol survey relies on using standard values for estimating the proportion of desert tortoises above ground and available for detection (Pa). These Pa values are based on average proportions of transmittered tortoises found above ground from earlier range-wide line-distance sampling surveys conducted during the spring survey season. Tortoise activity is highly seasonal. The proportion of tortoises above ground changes with time and may decrease dramatically in July. Because of this, use of the standard Pa values for surveys conducted outside the season will underestimate abundance. A reasonable estimate of the abundance of tortoises in the relocation areas is essential to evaluate potential impacts to resident tortoises from the proposed relocation. The density of tortoises on the project site and the density of resident tortoises in the proposed relocation and translocation areas should

be determined using appropriate survey techniques so that the extent of the impacts can be determined.

The habitat surveys conducted in the relocation areas do not include surveys of the annual plants that tortoises depend upon for their survival (USFWS 1994). The nutritional status of wild tortoises may depend more on availability of plant species of high nutritional quality than on overall amounts of annual vegetation (Oftedahl and Allen, 1996). Without data on the quantity and quality of available forage it is unclear if the current carrying capacity of the proposed relocation sites is sufficient to support additional tortoises. The is important since the 1984 status report tortoise density map of the Ivanpah Valley (Berry et al., 1984 Plate 6-13) indicates that historic tortoise densities in the North Ivanpah Valley were not uniform and may have been lower at the translocation sites compared to the project site.

BLM Handbook 1745 requires that activity plans for translocations must be site-specific and include "Site-specific and measurable vegetation/habitat population objectives which are based on existing ecological site potential/condition, habitat capability, and other important factors." The DEIS does not adequately describe existing ecological conditions nor does it address the capacity of the habitat at the translocation sites to support additional tortoises. It has been established that livestock compete with desert tortoises for important food plants (Avery and Neibergs, 1997; Avery, 1998). The BLM must analyze impacts from competition for food plants by cattle on the likely success of translocating tortoises to these sites and provide mitigation for any impacts identified.

Environmental stressors may contribute to disease outbreaks in desert tortoise populations particularly Upper Respiratory Tract Disease (Sandmeier *et al.*, 2009). The BLM should require that the health status of resident and translocated tortoises be evaluated so that movement of *Mycoplasma* infected tortoises can be controlled.

Desert tortoises may make long-distance movements following relocation (FSA/DEIS at 6.2-50). Because of this, it is critical that fencing along I-15 be in place prior to any tortoise translocations being are undertaken because translocated or relocated tortoises may make long distance movements. This must be specified in the translocation plan component of the EIS.

Summary

In summary, the direct, indirect, and cumulatively impacts of the proposed project on the threatened desert tortoise will be severe. Since the Northeastern Mojave population is the most genetically distinct desert tortoise population in California, and the North Ivanpah Valley desert tortoises exhibit behavioral adaptations that may be important for the long-term survival of the species, protection of these tortoises may well be critical to the conservation of the entire listed population in California. We are extremely concerned that the impacts of the proposed project will endanger California's Northeastern Mojave desert tortoise population, and will place the entire Mojave desert tortoise population at risk.

(3) Bighorn Sheep.

The FSA/DEIS fails to fully analyze impacts to bighorn sheep, provide alternatives to avoid impacts, or provide measures to minimize these impacts. 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. The BLM should consider removal of cattle from the Clark Mountain Allotment and locating the project elsewhere as mitigation and avoidance measures.

(4) Other Sensitive Species.

The NEMO Plan set the goal for special status species as "Populations and their habitats are sufficiently distributed to prevent the need for listing" (NEMO Plan at 2-6). 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. In doing so, it fails to meet NEPA's requirements or satisfy the NEMO Plan's objectives.

(5) Rare Plants.

The NEMO Plan set the goal for special status species as "Populations and their habitats are sufficiently distributed to prevent the need for listing" (NEMO Plan at 2-6). 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 and how it will fulfill the objectives laid out in NEMO. The lack of fall surveys likely under-represents the full suite of rare plant taxa occurring on site. 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 significant impacts to rare plants occurring at this site is to relocate the project to another, lower resource value site but this was not considered by the BLM in the FSA/DEIS.

(6) Invasive Species.

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. Water run-off from the washing the mirrors will promote invasive plant growth year-round and increased use of the area will help disperse invasive plant seeds throughout the area. The DEIS does not explain how invasive species will be controlled on the project site.

(7) Visual Resources.

Visual resources are important public resources identified in both FLPMA and the CDCA Plan. 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 ISEGS project's power towers, each rising to 459 feet above the valley and array of 428,000 mirrors. Scenic views from two wilderness areas (Mesquite and Stateline) will also be adversely affected. Hundreds of thousands of visitors pass through the Ivanpah Valley annually. While most of these simply pass through along the major highways, many visitors do stop to visit, use and enjoy the Ivanpah Valley's public lands, Mojave National Preserve, Wilderness Areas, and recreation areas. The proposed project will significantly impact visual resources for these visitors. In the FSA/DEIS the BLM has failed to identify alternatives or mitigation measures that will avoid these impacts other than the "no action" alternative.

(8) Cumulative Impacts.

The proposed project in conjunction with other projects in the area will have significant cumulative effects on the areas resources especially to desert tortoise, rare plants, and visual resources.

The FSA/DEIS fails to adequately consider that the population of the Northeastern Mojave ESU desert tortoises the 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 cumulative effect of these projects will be to convert the Northern Ivanpah Valley Unit into a *de facto* solar zone and industrial zone which no longer supports multiple use nor provides habitat for desert tortoise and other wildlife.

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 Nevada (Primm Valley) portion 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 from these projects and other solar projects on the Nevada side of the border to Northeastern Mojave ESU desert tortoises. The impacts include destruction and loss of habitat, take of tortoises, habitat fragmentation, population fragmentation, loss of connectivity, and loss of viability. The cumulative impacts of these developments severely threatens the long-term survival of the Northeastern ESU desert tortoises in the entire Ivanpah basin and threatens to sever connectivity between this and other Recovery Units thus compromising recovery. Since the Northeastern Mojave population is the most genetically distinct desert tortoise population in California, protection of these tortoises may well be critical to the survival of the four other Recovery Units found in California. The cumulative impacts threaten to endanger California's Northeastern Mojave desert tortoise population, and this places the entire desert tortoise population in California at risk.

The FSA/DEIS fails to adequately identify and analyze the cumulative impacts and the growth inducing impacts of the project 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 grown inducing impacts from the approval of one project on the entire area is not adequately assessed or analyzed.

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.

(9) Compliance with the Land Use Plan and BLM Policy.

The governing land use plan for the project area is the CDCA Plan as amended by the 2002 NEMO Plan Amendment.

The NEMO Plan's mitigation for Category III habitat applies to projects of less than 100 acres. NEMO at 2.27. The proposed project is <u>over forty times the maximum acreage for projects covered under the NEMO Plan</u>. The NEMO Plan did not address California State interests in the Northeastern Mojave desert tortoise population. The NEMO Plan does not even list CDFG as one of the agencies consulted (See NEMO Plan Chapter 7). Like the FSA/EIS, the NEMO Plan failed to address impacts to California's population of Northeastern Mojave desert tortoises. The BLM must therefore fully address impacts to the Northeastern Mojave ESU and to California's interests in the EIS.

BLM Handbook 1745 - *Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants* - requires that "Decisions for making introductions, transplants, or reestablishments should be made as part of the land use planning process (see BLM Manual Section 1622). Releases must be in conformance with approved RMPs. <u>A Land Use Plan Amendment must be prepared for proposed releases if management direction is not provided in the existing Land Use Plan</u> (see BLM Manual Section 1617, emphasis added)." The proposed project and the other projects proposed for the project area will result in large-scale movement and translocation of desert tortoises. There is no consideration in the California Desert Conservation Area Plan as amended by the NEMO Plan for desert tortoise translocations on this scale. Therefore, a plan amendment is required to comply with BLM policy.

In addition, BLM Handbook 1745 at .1.12A requires that the activity plan be site-specific and include "Site-specific and measurable vegetation/habitat population objectives which are based on existing ecological site potential/condition, habitat capability, and other important factors. (See BLM Manual Sections 1619, 6780, and 4120)." As we discussed above, the DEIS

does not adequately describe existing ecological conditions nor does it address the capability of the habitat at the translocation sites to support additional tortoises.

The BLM must adhere to its own policy and prepare an EIS that proposes and analyses an amendment to the CDCA Plan that provides the required management direction with respect to desert tortoise translocation prior to considering this project. It could then use that guidance to develop a translocation plan for desert tortoises in the project area that includes the required site-specific analyses to comply with BLM policy, FLMPA, and NEPA.

(10) Mitigation.

The NEPA requires the BLM to include appropriate mitigation measures in its environmental analysis. The management guidelines for Category III desert tortoise habitat are to "Limit tortoise habitat and population declines to the extent possible by mitigating impacts" (Spang *et al.* 1988). The NEMO Plan does not cover projects greater than 100 acres (NEMO Plan at 2.27). The BLM must thus describe in its NEPA document the impacts of the proposed action, explain the specific measures that will mitigate these impacts, and analyze how these measures would reduce impacts to less than significant and thus avoid compromising the NEMO Plan's conservation strategy.

In the FSA/DEIS, BLM proposes mitigating impacts at the power plant site by acquiring habitat and implementing recovery actions in the Eastern Mojave Desert Tortoise Recovery Unit (FSA/DEIS at 1-19). This is populated by a different desert tortoise ESU. This will not mitigate impacts to the affected Northeastern Mojave ESU. Because the DEIS has failed to address direct, indirect and cumulative impacts to the Northeastern Mojave desert tortoise population and the significance of this ESU to the conservation of the entire listed population, and because the DEIS fails to present specific mitigation measures it is impossible to determine the adequacy of the mitigation.

The primary mitigation mechanism for any large scale project that will permanently destroy and disturb large tracts of desert tortoise habitat must be acquisition of replacement habitat. The location of this replacement habitat is not identified in the FSA/DEIS. However, it is doubtful if sufficient replacement habitat exists within the Northeastern ESU in California to offset habitat loss on this scale. The DEIS does not address mitigating impacts to connectivity at all. The principle underlying acquisition of compensation habitat is that that replacement habitat can be enhanced with additional short-term measures to compensate for the habitat that is lost. Potential enhancement actions for impacts to the Northeastern Mojave desert tortoise population in California's Ivanpah Valley include erecting tortoise barrier fencing along major roads. Fencing reduces tortoise loss, reduces road kill (and thus foraging opportunities for ravens), and effectively increases habitat available for use by tortoises. Other potential enhancement actions include removing livestock grazing and formally protecting habitat by changing its land use designation. The BLM should consider plan amendments to (a) allow buyout and retirement of grazing allotments, including the Clark Mountain Allotment; (b) reduce vehicle routes and OHV activity; and, (c) expand the Ivanpah DWMA. Including the North Ivanpah Valley within the

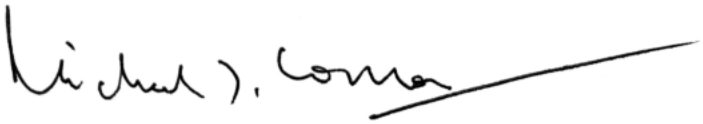
Ivanpah DWMA and thus protecting the remaining habitat there is the only foreseeable way that the cumulative effects of the project could be ameliorated.

Desert washes, drainage systems, and washlets are very important habitats for plants and animals in arid lands. Water concentrates in such places, creating greater cover and diversity of shrubs, bunch grasses, and annual grasses and forbs. The topography is often more varied, as are soil types and rock types and sizes, creating diverse sites for burrows, caves, and other shelters. The resulting "habitats" tend to attract more birds, mammals, reptiles, and invertebrates. Desert tortoises, for example, spend disproportionately much more time in wash habitat than they do in "flat" areas (Jennings 1997). Acquired compensation habitat must therefore include comparable acreages of wash habitat. If "nesting" of mitigation is allowed, the provisions must ensure that the loss of rare plant populations and individual plants will be adequately compensated.

In summary, the direct, indirect and cumulative impacts of this project on desert tortoise, rare plants, and visual resources are so great that adequate mitigation will be impossible to achieve unless the BLM considers making major changes to its management of the North Ivanpah Valley. If the BLM is not prepared to do so it must deny the right-of-way application.

Western Watersheds Project thanks you for this opportunity to provide comments on the DEIS. Please keep Western Watersheds Project informed of all further substantive stages in this NEPA process and document in the record our involvement as members of the 'interested public'. If you have any questions, please feel to call me at (818) 345-0425 or e-mail me at <mjconnor@westernwatersheds.org>.

Sincerely,



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ATTACHMENT 2

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Working to protect and restore Western Watersheds

May 31, 2010

BY US MAIL AND BY EMAIL

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RE: Supplemental Draft Environmental Impact Statement for Ivanpah Solar Electric Generation System dated April 13, 2010 (DES-09-46).

Dear Mr. Meckfessel:

Western Watersheds Project is pleased to provide the following comments on the Supplemental Draft Environmental Impact Statement for the Ivanpah Solar Electric Generation System dated April 13, 2010 (DES-09-46) ("SDEIS"). The closing date for public comment is May 31, 2010 so these comments are timely filed. Please incorporate and address our comments in the planning for this proposed power plant project.

Western Watersheds Project works to protect and conserve the public lands, wildlife and natural resources of the American West through education, research, public policy initiatives and litigation. Western Watersheds Project has a particular interest in the California Desert Conservation Area and our staff and members use and enjoy the project area's public lands and fragile resources. Western Watersheds Project has been actively involved in the environmental review for this project, is an intervenor in the California Energy Commission licensing process for the project, and submitted comments on the draft FSA/DEIS. We have attached a copy and hereby incorporate by reference the entire contents of that February 11, 2010 letter.

The proposed power plant project would be located on relatively undisturbed public lands in California that are habitat for the state and federally listed desert tortoise, and that provide habitat for rare plant species and communities. In the initial Draft EIS, the BLM considered only two alternatives, the proposed action and no action. The Supplemental Draft EIS (SDEIS) analyzes two additional alternatives to the proposed action; a "Mitigated Ivanpah 3 Alternative"

and a "Modified I-15 Alternative". These two additional alternatives are for projects with slightly reduced footprints (about 3,564 acres) compared to the original proposed action (4,064 acres). The Mitigated Ivanpah 3 Alternative would be located entirely within the same property boundaries as the proposed project. In the Modified I-15 Alternative the Ivanpah 3 unit would be moved from north end of the project to south of the project closer to Interstate-15.

In the DEIS and now in the SDEIS, the BLM has failed to consider and analyze alternatives that would allow the project to proceed but would avoid impacts to desert tortoise, rare plants and other scarce and sensitive resources. The two alternatives reviewed in the SDEIS will have similar significant direct, indirect and cumulative impacts on desert tortoises, rare plants, and visual resources as the proposed action. The BLM failed to consider any alternatives that would avoid these resources but would allow the project to proceed. The BLM has failed to take NEPA's requisite hard look at the environmental effects of each alternative. Accordingly, the BLM should consider issuing a new supplemental NEWPA document prior to developing a final EIS.

(1) Alternatives.

The NEPA implementing regulations specify that NEPA documents must analyze a full range of alternatives. The consideration of alternatives "is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires agencies to "Use the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." (40 C.F.R. § 1500.2)

In the original DEIS, the BLM considered only two alternatives, granting the right-of-way (the "proposed action") and not granting the right-of-way ("no action"). In our comment letter on the DEIS we had requested that the BLM to consider locating the project on Ivanpah Dry Lake bed. This obvious and reasonable alternative site location was raised at public meetings, was proposed by the Sierra Club in its June 22, 2009 letter, and was referenced by CDFG in its October 27, 2009 letter. The NEPA requires agencies to "Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." This alternative should have been considered in the SDEIS.

(2) Desert Tortoise.

The proposed power plant project will have severe direct, indirect and cumulative impacts on California's population of Northeastern Mojave desert tortoise Evolutionarily Significant Unit ("ESU"). These impacts include destruction and loss of habitat, take of tortoises, habitat fragmentation, population fragmentation, loss of connectivity, and loss of viability. The two alternatives proposed in the SDEIS would have similar impacts on desert tortoise to those discussed for the proposed action in our February 11, 2010 letter.

The SDEIS, like the FSA/DEIS, fails to provide crucial baseline information such as the amount of habitat in the Northeastern Mojave Recovery Unit in California, and fails to adequately document impacts to this resource. Without an adequate description of the ESU, a

full analysis of the impacts of the proposed project is impossible, nor is a meaningful comparison of alternatives or the development of adequate mitigation measures possible.

As we described in our comments, the tortoises in the Ivanpah Valley differ from other desert tortoise populations in California, and the population's limited range, overall importance to genetic diversity, and behavioral adaptations underlie the need to conserve them. This is especially important given the threats posed by global climate change.

The footprint of the proposed action in the FSA/DEIS was 4,073 acres (about 6.4 square miles) of desert tortoise habitat. The footprint for both alternatives examined in the SDEIS is 3,564 acres (about 5.6 square miles) of desert tortoise habitat. The NEMO Plan identifies that there are 27,300 acres of BLM-managed public lands in the North Ivanpah Valley. Based on that data the proposed alternatives would consume 13% of the North Ivanpah Valley's public land. Since the North Ivanpah Valley accounts for 24% of their habitat, the footprint of the alternatives would consume 4-5% of the Northeastern Mojave ESU desert tortoise habitat in California.

Mitigating for direct impacts on this scale is difficult. However, other major projects are also being proposed in the North Ivanpah Valley not the least of which are an additional power plant and the DesertExpress railway. In the face of the massive cumulative habitat loss and fragmentation that will occur if these projects proceed, it is difficult to imagine how a viable tortoise population could persist in the North Ivanpah Valley. As such, the cumulative impacts threaten to eliminate nearly a quarter of the range of the Northeastern Mojave ESU in California. Neither of the two alternatives reviewed in the SDEIS will reduce these cumulative effects.

The NEPA documents are unclear as to how many tortoises will be directly affected by each of the proposed power plant alternatives. How many, if any, individual desert tortoises would benefit directly from the "Mitigated Ivanpah 3" proposal is unclear. This is because (a) actual desert tortoise numbers on the ISEGS site has not been determined; and, (b) the current location of the three desert tortoises encountered during the protocol surveys conducted two years ago is unknown. The area occupied by the 433 acres that would be avoided under the proposal is an irregular polygon with a width of approximately 1,000 feet. Any individual tortoises present in this area would still be subject to indirect effects from the project such as changes in social structure due to loss of the local population and reduction of home ranges or activity areas. The 2007 desert tortoise survey results indicate that burrow density is higher on Ivanpah 2 and Ivanpah 1 than on Ivanpah 3. Despite these facts, the SDEIS makes the extraordinary and unsubstantiated claim that for the Mitigated Ivanpah 3 Alternative which reduces the Ivanpah 3 plant by 433 acres "would have greater anticipated benefit than reduction in project footprint in other locations". SDEIS at 36.

Connectivity between desert tortoise populations is essential to maintain gene flow and genetic heterogeneity (Hagerty, 2008[1]). The FSA/DEIS mentioned connectivity but provides no discussion or analysis. At least the FSA/DEISD mentioned connectivity; <u>the SDEIS completely ignores the effects of the two "new" alternatives on connectivity altogether</u>.

[1] Hagerty, B. 2008. Ecological Genetics of the Mojave Desert Tortoise. PhD Dissertation. University of Nevada, Reno. 244 pp.

According to the *Draft Revised Desert Tortoise Recovery Plan* (at 46), connectivity between the Northeastern Mojave and Eastern Mojave desert tortoise ESUs is provided by the Mountain Pass area in California. Disruption of this connectivity poses a threat to the genetic diversity of the Mojave population as a whole. Because all three alternatives for the proposed project will impact tortoises in the area identified as providing this essential connectivity, impacts to connectivity between the tortoises in the Northeastern Mojave Recovery Unit and the adjacent Eastern Mojave Recovery Unit must be considered and fully addressed. The Ivanpah Valley desert tortoise population is threatened with isolation from tortoises in the rest of the Northeastern Mojave Recovery Unit by existing and proposed developments in Nevada's Primm Valley. The BLM must also consider connectivity between the Ivanpah Valley desert tortoise population and the rest of the Northeastern Mojave ESU. We had requested this in our February 11, 2010 letter.

Fragmentation of occupied desert tortoise habitat results in smaller, isolated desert tortoise populations that become increasingly susceptible to negative effects with decreased viability. Fragmentation is particularly problematic when population densities are low. The SDEIS recognizes that the new alternatives will fragment desert tortoise habitat but does not quantify the degree of fragmentation nor does it provide an analysis of the viability of the fragmented desert tortoise populations. The habitat in the 433 acres that will be avoided under the Mitigated Ivanpah 3 alternative is at the north end of the ISEGS project site. An additional solar power plant is proposed immediately to the east of this area, and the proposed DesertExpress railway line would pass to the north. Any desert tortoises in the avoided 433 acres would be isolated within this pocket of habitat. Indirect effects of the proposed project such as increased use by vehicles and "improvement" of dirt roads will lead to further fragmentation. The Ivanpah Valley desert tortoise population is threatened with isolation from tortoises in the rest of the Northeastern Mojave Recovery Unit by existing and proposed solar developments in the Primm Valley in Nevada. The proposed project will contribute to the fragmentation effects of these proposed and existing developments. These cumulative fragmentation effects must be considered and addressed in the FEIS.

The SDEIS at 36 states, "Compared to the proposed project, the Mitigated Ivanpah 3 Alternative would have a reduced impact on desert tortoise by avoiding long-term impacts to 433 acres of habitat and providing an area for tortoise relocation within known tortoise habitat." However, the 433 acres is part of the site that would require the most grading and rock removal. The SDEIS does not analyze availability of friable soils for burrow construction by desert tortoises within this 433 acres. Availability of friable soils for burrow construction may restrict the carrying capacity of the site and thus its suitability as a translocation site for tortoises. The SDEIS also fails to consider the other projects proposed in the immediate vicinity of the 433 acres which would further reduce the suitability of this area for desert tortoise translocation. We refer to our February 11, 2010 letter for additional comments related to desert tortoise translocation and relocation.

BLM Handbook 1745 requires that activity plans for translocations must be site-specific and include "Site-specific and measurable vegetation/habitat population objectives which are based on existing ecological site potential/condition, habitat capability, and other important

factors." Neither the DEIS nor the SDEIS adequately describe existing ecological conditions nor address the capacity of the habitat at the translocation sites to support additional tortoises.

In summary, the direct, indirect, and cumulatively impacts of the proposed project on the threatened desert tortoise will be severe. Since the Northeastern Mojave population is the most genetically distinct desert tortoise population in California, and the North Ivanpah Valley desert tortoises exhibit behavioral adaptations that may be important for the long-term survival of the species, protection of these tortoises may well be critical to the conservation of the entire listed population in California. We are extremely concerned that the impacts of the proposed project will endanger California's Northeastern Mojave desert tortoise population, and will place the entire Mojave desert tortoise population at risk.

(3) Wild Horse and Burros

The SDIES is incorrect in asserting that "wild horses are not present in the project area". There is at least one stallion present (photographs available on request) that was described by the grazing permittee as having been present for several seasons. Although the BLM has established the AML for burros in the Clark Mountain HMA at zero, there are many burros on the site that will be impacted. BLM cannot simply pronounce that because they have established a zero AML, wild horses and burros will not be impacted by any of the alternatives. BLM must address the actual impacts to the resident wild horse and burro population.

(4) Bighorn Sheep.

Like the FSA/DEIS, the SDEIS fails to fully analyze impacts to bighorn sheep, provide alternatives to avoid impacts, or provide measures to minimize these impacts. The slightly smaller size of the Mitigated Ivanpah 3 alternative does not make up for the failure to obtain and consider basic information about the use of the area by bighorn and the likely impacts to bighorn from the project.

(5) Other Sensitive Species.

The NEMO Plan set the goal for special status species as "Populations and their habitats are sufficiently distributed to prevent the need for listing" (NEMO Plan at 2-6). Like the FSA/DEIS, the SDEIS fails to fully analyze impacts to gila monsters, burrowing owl, golden eagles, other bird species, bats, and other wildlife or to provide alternatives to avoid impacts, or provide measures to minimize impacts. In doing so, it fails to take NEPA's requisite hard look and fails to meet NEPA's requirements or satisfy the NEMO Plan's objectives.

(6) Rare Plants.

The NEMO Plan set the goal for special status species as "Populations and their habitats are sufficiently distributed to prevent the need for listing" (NEMO Plan at 2-6). The SDEIS provides too little analysis of impacts, fails to discuss of alternatives that would avoid these impacts, and provides inadequate information about the proposed mitigation strategies and how

these will fulfill the objectives laid out in NEMO. Siting the project on the dry lake bed would have avoided many impacts to rare plants.

(7) Visual Resources.

Visual resources are important public resources identified in both FLPMA and the CDCA Plan. 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 ISEGS project's power towers, each rising to 459 feet above the valley and array of 428,000 mirrors. Scenic views from two wilderness areas (Mesquite and Stateline) will also be adversely affected. Hundreds of thousands of visitors pass through the Ivanpah Valley annually. While most of these simply pass through along the major highways, many visitors do stop to visit, use and enjoy the Ivanpah Valley's public lands, Mojave National Preserve, Wilderness Areas, and recreation areas. The two alternatives proposed in the SDEIS will significantly impact visual resources for these visitors. In the SDEIS and FSA/DEIS the BLM has failed to identify alternatives or mitigation measures that will avoid these impacts other than the "no action" alternative.

(8) Compliance with the Land Use Plan and BLM Policy.

The two alternatives analyzed in the SDEIS suffer the same lack of compliance issues with the CDCA Plan as amended by the 2002 NEMO Plan Amendment that we identified for the proposed action in our February 11 letter.

The NEMO Plan's mitigation for Category III habitat applies to projects of less than 100 acres. NEMO at 2.27. The two alternatives in the SDEIS are <u>over forty times the maximum acreage for projects covered under the NEMO Plan</u>. The NEMO Plan did not address California State interests in the Northeastern Mojave desert tortoise population. The NEMO Plan does not even list CDFG as one of the agencies consulted (See NEMO Plan Chapter 7). The NEMO Plan failed to address impacts to California's population of Northeastern Mojave desert tortoises. The BLM must therefore fully address impacts to the Northeastern Mojave ESU and to California's interests in theF EIS.

BLM Handbook 1745 - *Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants* - requires that "Decisions for making introductions, transplants, or reestablishments should be made as part of the land use planning process (see BLM Manual Section 1622). Releases must be in conformance with approved RMPs. <u>A Land Use Plan Amendment must be prepared for proposed releases if management direction is not provided in the existing Land Use Plan</u> (see BLM Manual Section 1617, emphasis added)." The two new proposed alternatives and the other projects proposed for the project area will result in large-scale movement and translocation of desert tortoises. There is no consideration in the California Desert Conservation Area Plan as amended by the NEMO Plan for desert tortoise translocations on this scale. Therefore, a plan amendment is required to comply with BLM policy.

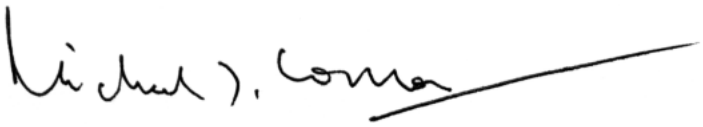
The BLM must adhere to its own policy and prepare an FEIS that proposes and analyses an amendment to the CDCA Plan that provides the required management direction with respect

to desert tortoise translocation prior to considering this project. It could then use that guidance to develop a translocation plan for desert tortoises in the project area that includes the required site-specific analyses to comply with BLM policy, FLMPA, and NEPA.

In summary, the BLM has failed to analyze a reasonable range of alternatives in the SDEIS and DEIS, has failed to analyze alternatives that would avoid significant direct, indirect and cumulative effects on desert tortoise, special status species, rare plants, and visual resources, and that would comply with the governing CDCA Plan, and has failed to take a hard look at the environmental impacts of the alternatives. The BLM should address these deficiencies in a second supplemental DEIS.

Please keep Western Watersheds Project informed of all further substantive stages in this NEPA process and document in the record our involvement as members of the 'interested public'. If you have any questions, please feel to call me at (818) 345-0425 or e-mail me at <mjconnor@westernwatersheds.org>.

Sincerely,



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Attachment:
February 11, 2010 letter from Western Watersheds Project RE: Draft Ivanpah Solar Electric Generation System Environmental Impact Statement and the Draft California Desert Conservation Area Plan Amendment. 15 pp.