

STATE OF CALIFORNIA  
Energy Resources Conservation  
and Development Commission

California Energy Commission  
**DOCKETED**  
**09-AFC-7C**  
TN # 70178  
MAR 29 2013

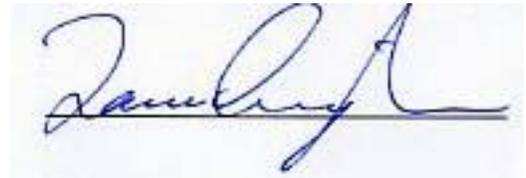
In the Matter of:

APPLICATION FOR CERTIFICATION ) DOCKET NO. 09-AFC-7C  
FOR THE PALEN SOLAR ELECTRIC )  
GENERATING SYSTEM )  
\_\_\_\_\_ )

**STATUS REPORT No. 1**  
**BASIN AND RANGE WATCH**

Enclosed please find Status Report No. 1 with issues by Basin and Range Watch concerning the Palen Solar Electric Generating System project,

March 29, 2013



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Basin and Range Watch**

**New Staff Assessment:**

Because the concentrated solar thermal design and technology for the Palen Project has significantly changed from a parabolic trough design to a power tower design, we believe that many of the potential impacts have also changed. Some of them are more significant than others. Changes will occur for visual, cultural, wildlife, hydrologic and a variety of other resources. Because of these changes, we would like to request that the California Energy Commission complete a new Staff Assessment for this project. We have specific concerns about the following issues.

**Alternatives:** Any project of such magnitude will result in dramatic changes to a large variety of resources in the region. The renewable energy portfolio standards of California can be met using alternatives located on brownfields. The California Energy Commission should consider an alternative location for the Palen Project that would not result in so many resource conflicts.

The CEC should also consider a Feed in Tariff and Distributed Generation alternative. These alternatives would have the least environmental impacts and the most environmental benefits. There would be little need for new transmission and the cost of building distributed solar would be far less than a utility scale concentrated solar thermal project.

There are opportunities now to build renewable energy on brownfields in California. One alternative to consider would be the Westland Solar Park. The Westlands Solar Park (WSP) is a Competitive Renewable Energy Zone (CREZ) identified by the Renewable Energy Transmission Initiative (RETI) located in northwestern Kings County in central California. The WSP includes the phased development of utility-scale solar PV generating facilities with a total capacity of approximately 2,400 MW on about 24,000 acres of drainage-impaired agricultural lands in the southeastern portion of the Westlands Water District. The EIR will also evaluate three planned transmission corridors in the region, which are intended to facilitate the conveyance of renewable energy. More information on the project and its goals are included in the NOP. More on the Westlands Solar Park can be seen here: [www.westlandswater.org](http://www.westlandswater.org)

The California Energy Commission should also examine a photovoltaic (PV) alternative for the Palen Site. While a PV alternative in the same location would still have some of the same impacts, it would reduce the visual, hydrologic and avian impacts.

### **Mojave fringe-toed lizard:**

While it is good that some of the footprint of the project has been reduced, there are still over 1,000 acres of habitat for the Mojave fringe-toed lizard (MFTL) that will be destroyed.

The configuration of the power tower design raises some new questions concerning the sand transport. How will the large number of heliostats affect the flow of sand? Will the mirrors block wind and will the mirrors block the actual sand? To what percentage will these obstructions block the sand transport corridor? We believe that the new design warrants a new study of how the project will impact the sand Aeolian sand transport corridor and how the project will cumulatively impact adjacent habits and MFTL populations.

A regional plan should be developed for the Mojave fringe-toed lizard. The area should include all of Chuckwalla Valley and the Pinto Basin in Joshua Tree National Park. The cumulative impacts of developing and pending renewable energy applications as well as more traditional public land uses and impacts should be evaluated. These uses and impacts would also include off highway vehicle use and the spread of invasive Sahara mustard. The Solar Programmatic Environmental Impact Statement Record of Decision has placed a very large percentage of this habitat on a schedule of development and the PEIS has not yet identified acceptable mitigation to offset impacts to these populations. A regional plan should also examine how existing and pending development is affecting sand flow and connectivity for MFTL.

### **Other Avian Fauna, Solar Flux and Polarized Glare:**

**Golden eagles:** Due to the amount of unknown information regarding the scale of this project and avian mortality, we believe that the proceedings need to be slowed down until the applicant can resolve the issues of a Take permit under the Bald and Golden Eagle Protection Act.

While we realize that it is not the responsibility of the CEC to enforce the Bald and Golden Eagle Protection Act, it appears that it could be a violation of Federal law to allow this project to proceed without resolving the issues of Take for golden eagles. The CEC should make a decision that is consistent with the Federal laws.

Under California state law no Take of golden eagle is allowed without a Natural Community Conservation Plan. There is no such plan for the Palen desert area.

### **Migratory Birds, Other Species and Bats:**

We would like to see a comprehensive list of all of the birds that could be killed in the 2,000 foot solar flux radius of the two towers. We would also like to see a list of all species that will potentially collide with the heliostats as a result of the lake effect or "polarized glare". The CEC has determined that over 3,000 birds could be killed by this problem at the Hidden Hills Solar Electric Generating System.

We would also like to request that the approval process for Palen be delayed until more data can be gathered on the other BrightSource project that has been under construction for the past 2 and a half years, the Ivanpah SEGS Project. A two to three year study on flux mortality should be initiated and no more power towers should be approved until we can obtain some solid data on mortality numbers for flux and mirror collision.

We would also like to see a list of bat species that could potentially be impacted by flux during end of the day at twilight hours.

### **Desert kit fox:**

Based on recent deaths of kit foxes at other large-scale solar construction sites, the potential for displacement mortality of the foxes is being raised for the review of other desert energy projects. The Center for Biological Diversity had recently petitioned the desert kit fox for listing under the federal Endangered Species Act. The recent Record of Decision by Bureau of Land Management for the McCoy Solar Energy Project included much more rigorous and comprehensive language for passive relocation of kit foxes than that recommended by staff on this project. A baseline census needs to be done, health issues addressed (canine distemper has broken out on the Genesis Solar Energy Project), and subsequent monitoring of kit foxes was required.

**Groundwater-dependent vegetation:** The Desert ironwood, palo verde, and mesquite areas could be impacted by groundwater pumping. Will staff and applicant agree to a "stop pumping trigger" of groundwater drawdown if negative impacts are detected in microphyll woodland adjacent to the project? What monitoring will be undertaken?

**Water Resources:** A regional groundwater study should be completed before project approval, showing how the groundwater of the project site relates to the Colorado River groundwater basin. The objective of the study should be to evaluate the cumulative impacts to both groundwater and the Colorado River Basin relating to large industrial scale energy projects being built in the region. So far, construction is taking place on the Genesis and Desert Sunlight solar projects as well as the Devers-Palo Verde Transmission Project. Dust mitigation also occurred twice daily for about 4 months after the ROW approval of the now bankrupt Solar Trust of America Blythe Solar Energy. This project is now owned by Nextera and if built, will require substantial water for dust mitigation. Other pending projects include the McCoy Project, the Desert Harvest Project, the Sonora West Solar Project and the Rio Mesa Solar Project which is in a state of limbo at this point. A host of other energy applications can be referenced from the Bureau of Land Management including the recently approved Riverside East Solar Energy Zone which opens up 149,000 acres of land to potential solar energy development.

**Air Quality:** Dust emissions have been a problem for three of the solar energy projects located in Riverside County. These are the Genesis, Desert Sunlight and Blythe Solar projects. Fugitive dust is still an on-going issue for the Ivanpah Solar Electric Generating System in San Bernardino County. We have included photos of these projects below.



*^ May, 2011 – recently bulldozed roads on the site of the now suspended Blythe Solar Energy Project have been kicking up fugitive dust since they were bulldozed. Attempts to control this dust have only been marginally successful.*



*^April 2012 – This is a dust “blackout” looking from I-10 towards the Genesis Solar Project Site. Winds were about 25 MPH that day and the dust kicked up from construction combined with natural dust from Ford Dry Lake made visibility almost non-existent.*



*^December, 2011 – Desert Sunlight Solar Project near Desert Center, California – Wind storms have caused several dust blackouts from this project and the removal of soils. Mitigation attempts have mostly failed during the beginning phase of this project.*



*^February 23<sup>rd</sup>, 2013 – Ivanpah Solar Electric Generating System – Unit One of this project was shrouded in dust for about 40 minutes on this day when winds were blowing at about 25 MPH. We saw no attempts by the owner of the project to mitigate this.*

Dust control in hot, arid climates is very problematic. The removal of well established vegetation, biological soil crusts and centuries old desert pavement creates opportunities for dust to be airborne every time the wind blows.

Not only does this create very bad problems for visual resources, the wholesale spread of this dust threatens public health as well. Coccidioidomycosis (Valley Fever) is spread when spores are kicked up by winds.

How will dust be mitigated for the Palen Project more effectively than these other sites? Will there be a cut-off wind speed that will determine when construction is stopped? If so, what would that wind speed be? Will polymers be used to control dust? If so, which ones?

**Visual Resources** – The re-design of this project will create a bigger visual intrusion than the previous design. Visual Impacts would be more three dimensional. The height of the power towers along with the intense glare effect of the receiver towers will be visible for great distances. The project will be visible from adjacent wilderness areas and will also be visible from the Eagle Mountains in the southeastern corner of Joshua Tree National Park.

Glare from the power towers would be visible from multiple locations. Glint from the heliostats has the potential to “flash-glare” at multiple elevations and locations from the mountains. There are many potential scenarios relating to time of day and time of year that could cause unsightly glint and glare events at multiple locations at different time of the day and the year.

Because this is the same design as the BrightSource Hidden Hills Project, each power tower will have 16 flashing lights running all night to meet FAA standards and maintain safety for aircraft.

A new staff assessment would be the best way to analyze the new visual impacts that will result from the new design of the Palen Project.

**Traffic and safety** - (glint/glare highway 10) The BrightSource power tower receivers are expected to have a brightness close to that of the sun within an approximate 8 to 10 radius of the towers. A visual simulation cannot capture the full impact. The project will be built very close to Interstate 10. Much closer than Ivanpah One is to Interstate 15 in San Bernardino County. It would seem nearly impossible to block the glare from a 750 ft. power tower on Interstate 10. We are concerned that the close proximity to the highway will cause problems with traffic and potentially result in motor vehicle accidents.

How will these potential accidents be mitigated?

**Cultural Resources:** Traditional uses in the region should be studied and a cultural landscape study completed with tribal people who hold an interest in the Palen area. There are trails, artifacts, archaeological sites, and associated stories, songs, and histories that need to be documented with full Tribal Government consultation.

Complete archeological surveys will need to be conducted and at better quality than on the adjacent Genesis Solar Project. Lack of surveys resulted in the destruction of a large array of important cultural sites and artifacts.

Evidence of a human settlement spread was found on November 17 including grinding stones lying on a bed of charcoal — possible evidence of an ancient cremation site.

In a subsequent meeting with Colorado River Indian Tribes, a federally recognized reservation just east of the work site, Bureau of Land Management officials described the discovery as "unprecedented," tribal leaders said.

On January 16, 2012, over 10 Tribal Chairman, other traditional/indigenous people, and Alfredo Figueroa of La Cuna de Aztlan Sacred Sites Protection Circle met at the Agua Caliente Casino Conference Center with the BLM and solar company officials. "All the tribes expressed their adamant opposition against the Genesis project so that they could stop this destruction immediately," Mr. Figueroa told us. The area has a network of ancient trails heading from these village sites to springs in the surrounding mountains and to the Colorado River. Many traditional groups today hold this area sacred.

We would like to see these problems avoided on the Palen Site.

### DECLARATION OF SERVICE

We, Laura Cunningham and Kevin Emmerich, declare that on March 29, 2013, served and filed copies of the attached **Status Report No. 1 by Basin and Range Watch**, dated March 29, 2013. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:

[[http://www.energy.ca.gov/sitingcases/solar\\_millennium\\_ridgecrest/Ridgecrest\\_POS.pdf](http://www.energy.ca.gov/sitingcases/solar_millennium_ridgecrest/Ridgecrest_POS.pdf)]. The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check one)

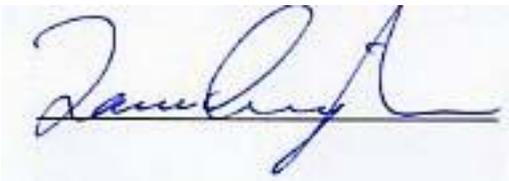
**For service to all other parties and filing with the Docket Unit at the Energy Commission:**

I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the US mail with first class postage to those parties noted above as "hard copy required"; **OR**

Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dates March 29, 2013

A handwritten signature in blue ink, appearing to read "Laura Cunningham", written over a horizontal line.

Laura Cunningham,  
Kevin Emmerich

**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
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**APPLICATION FOR CERTIFICATION )  
FOR THE PALEN SOLAR ELECTRIC )  
GENERATING SYSTEM )**

**Docket No. 09-AFC-7C  
PROOF OF SERVICE  
(Revised 3/26/13)**

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