

DOCKETED

Docket Number:	09-AFC-07C
Project Title:	Palen Solar Power Project - Compliance
TN #:	202775
Document Title:	CEC Staff Prehearing Conference Statement
Description:	Prehearing Conference Statement and Exhibit List
Filer:	Chester Hong
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	7/21/2014 12:37:38 PM
Docketed Date:	7/21/2014

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:

Application for Certification for the

PALEN SOLAR ELECTRIC GENERATING
SYSTEM

Docket No. 09-AFC-07C

**ENERGY COMMISSION STAFF PREHEARING CONFERENCE STATEMENT AND
STATEMENT OF UNRESOLVED ISSUES**

On June 2, 2014, the Palen Solar Electric Generating System (PSEGS) Amendment Committee (Committee) issued a Revised Notice of Prehearing Conference and Evidentiary Hearing, Scheduling Order, and Further Orders. In the Notice, the Committee set the Prehearing Conference for July 23, 2014, and ordered each party to file a Prehearing Conference Statement. This document responds to the Committee's Order.

1. Issues that are complete and ready to proceed to evidentiary hearing.

Staff believes that all subject areas are complete and staff is ready to proceed to evidentiary hearing.

2. Issues that are not complete and not yet ready to proceed to evidentiary hearing.

None.

3. Issues that remain disputed and require adjudication, and the precise nature of the dispute for each issue.

The Committee has requested testimony on particular issues. Staff anticipates discussion on each of these issues at hearings. The following list includes the issues for which staff has provided testimony and provides a brief statement about the issue and any disputed points.

Project Description: Because of the extension of this proceeding into the construction timeline originally proposed by the Petitioner, Staff's Opening Testimony requested the Petitioner provide an updated schedule. In Rebuttal Testimony, Petitioner has proposed a revised phasing plan. "PSH's new phasing plan includes all of Unit 1 (the westernmost solar field and power block), the common area and construction laydown area, the project switchyard, the access road, the natural gas pipeline, and the generation tie-line as Phase I. Phase II is now identified as the easternmost solar field and power block and addition of the second evaporation pond within the common area." (Ex. 1166, Page 1). In addition, "PSH proposes that construction of Phase II (the easternmost unit) be conditioned upon the filing and Commission approval of a future amendment that would present modifications to the currently designed Phase II to incorporate [Thermal Energy Storage]." (Ex. 1166, Page 3).

Staff is currently reviewing this revised Phasing Plan and the related information provided by the Petitioner: Ex. 1167, Revised Phasing Plan; Ex. 1168, Estimated Construction Personnel By Month; Ex. 1169, Proposed Modification to **Soil & Water-3**; and Ex. 1170, Proposed Modifications to **BIO-29**. Staff will be prepared to discuss these issues at Evidentiary Hearings.

Biological Resources:

a) Avian Impacts.

The Committee requested data from various renewable technologies in order to compare each technology's impacts to avian species. PSH provided avian mortality information on PV (Desert Sunlight), solar trough (Genesis), and power tower (ISEGS). The parties all acknowledge that the available data is limited and does not provide enough information to do an "apples to apples" comparison of impacts, but each party (Staff, Petitioner, and CBD) has used the available information for different purposes. Very generally: CBD has scaled up the mortality data from ISEGS in order to come up with an estimated number of annual mortalities expected at PSEGS; Petitioner has used the data as a basis for a risk assessment that concludes the highest risk area is within 100 meters of the tower and that dangerous flux levels begin at 25 kW/m² and estimated the number of flight paths passing through the region of risk; and Staff has used the data to show that most avian mortalities at ISEGS, both singing birds and non-singing, are likely flux-related, that the ISEGS data supports Staff's long-held position that flux impacts are dependent on flux intensity and length of exposure, and that the relative avian mortality risk at a PSEGS tower will be 3.7 times greater than an ISEGS tower.

b) Curtailment.

Staff has testified that the elimination of dangerous levels of solar-flux would be an effective tool to avoid impacts to avian species, but has acknowledged that short-term curtailment may not be feasible given that flux danger may not be removed in time to avoid impacts. Regarding long-term curtailment, Staff has testified that if project-specific avian data shows that flux-related impacts substantially increase at discrete times such

that planned curtailment would avoid impacts to a large quantity of birds or to special status species, then long-term curtailment would be an effective tool. The Petitioner has testified that both long-term and short-term curtailment would be financially infeasible and testify that mitigation and other deterrent and adaptive management strategies would be more effective than curtailment.

c) Deterrents.

The Petitioner suggests that deterrent methods and adaptive management techniques may reduce flux-related impacts. Staff cannot conclude based on the existing information whether or not deterrent methods would be effective in reducing flux-related impacts.

d) Insects.

Staff has researched and reviewed the available data on this issue and believes that the PSEGS project's potential impact to insects is too speculative to find that the impacts will be significant. However, staff believes that given the incidental information that has been provided from the operations at ISEGS, insect monitoring would be very helpful to further the understanding of insect ecology in the PSEGS area and to better understand the interaction of insects and this technology. In a revised **BIO-16b**, Staff has proposed that an insect behavior and monitoring program be included as a component of the BBCS. CBD would prefer more study on the potential significance of PSEGS impacts to insects before moving forward.

Cultural Resources.

At the January 7, 2014 Committee Conference, the Committee provided specific remarks and direction on issues related to **CUL-1**. (TN 201608, Pages 15-20). The main issues that the Committee wanted the parties to address were: 1) the open-endedness of staff's proposed **CUL-1** as it existed at the time of the October 2013 Evidentiary Hearings; 2) the nexus between the significant impacts to cultural resources and the mitigation measures included in the earlier version of **CUL-1**; and 3) the earlier version of **CUL-1** seemed too oriented towards the State's interests and not as well suited to Native American Concerns.

Staff has provided responses to the Committee's concerns (Exs. 2017, 2018, and 2019) and has proposed a revised **CUL-1** that addresses each of these concerns. (Ex. 2020).

Petitioner has provided its own proposed revision to **CUL-1** in Rebuttal Testimony, which differs from Staff's proposal in total funding amount and provides much less detail about how the funding will be distributed. (Ex. 1172). CRIT supports the funding amount included in Staff's proposed **CUL-1**, but has concerns with the Native American Advisory Group. (Ex. 8036).

Staff is prepared to discuss all issues related to **CUL-1** at Evidentiary Hearings.

Traffic and Transportation.

The Committee, in its Order granting Petitioner's Motion to Reopen the Evidentiary Record, questioned whether pilot complaints related to glare from ISEGS call into question any of the PMPD's discussion of glare impacts to pilots or the efficacy of **TRANS-7** to reduce glare impacts on pilots to less-than-significant. The threshold issue is whether the glare impacts to pilots are significant, and if significant, does **TRANS-7** reduce glare impacts to less-than-significant.

After viewing ISEGS in operation, staff determined that glare impacts to pilots were significant and that **TRANS-7** as written was not sufficient to mitigate glare impacts to pilots. As a result, in supplemental testimony, staff proposed conceptual modifications to **TRANS-7** to ensure glare impacts to pilots will be reduced. In rebuttal testimony, staff proposed specific modifications to the language of **TRANS-7**. The efforts being undertaken at ISEGS will inform how well modifications to the Heliostat Positioning and Monitoring Plan work to reduce glare impacts to pilots. Until such time that measures to reduce glare impacts can be demonstrated to be effective, Staff cannot be certain that **TRANS-7** will be effective to mitigate this impact. Staff has requested an opportunity to discuss in more detail the methods identified to reduce glare impacts and how such methods could be implemented at PSEGS.

Storage.

The Committee requested information on whether a storage component, either now or in the future, would be feasible for the PSEGS project. (TN 201608, Page 13). Petitioner provided Supplemental Testimony on this question (TN 201704), concluding that while adding Thermal Energy Storage (TES) is not possible now, adding TES at this project site would be feasible in the future. Staff reviewed the limited information Petitioner provided on a potential TES system and provided a limited analysis, concluding that there was not enough information to perform a thorough technical feasibility or reliability analysis for the proposed TES. (See Exhibit 2017, pages 67-71 and Exhibit 2019, Attachment B.

However, the Petitioner's new phasing approach would require the Petitioner to file a Petition to Amend to construct Phase II with a TES component. (See Ex. 1166, Page 3). Through that amendment process, Staff would have an opportunity to review a more specific proposal and provide a thorough analysis of the technical feasibility and reliability of a future TES system.

Staff will be prepared to discuss this issue at Evidentiary Hearings.

Natural Gas.

The Committee has noted that the ISEGS project has filed a Petition to Amend to increase use of Natural Gas. Given the similar technology used at both projects, the Committee has inquired whether the PSEGS project will require additional Natural Gas. The Petitioner has indicated that it will not. Staff has indicated it does not have enough

specific information to either confirm or contradict Petitioner's position. Staff is reviewing the information provided by Petitioner in Rebuttal Testimony (Ex. 1166) and will be prepared to discuss this issue at Evidentiary Hearings.

4. Witness List and Estimate of Time for Staff Presentation

Project Description (10 Minutes)

Christine Stora

Biological Resources (2 Hours)

Carol Watson (Biologist), Chris Huntley (Biologist), Geoff Lesh (Engineer), Brett Fooks (Engineer)

Cultural Resources (45 Minutes)

Thomas Gates, Mike McGuirt, Lorey Cachora

Traffic and Transportation (30 Minutes)

James Adams, Andrea Koch, Dr. Gregg Irvin, Gary Cathey (if available)

Storage (15 Minutes)

Edward Brady, Shahab Khoshmashrab

Natural Gas (15 Minutes)

Edward Brady, Jacquelyn Record, Shahab Khoshmashrab, Gerry Bemis

Alternatives and Overriding Considerations:

While staff did not prepare written testimony in these areas, Staff will make available by telephone two experts, Mark Hesters and David Vidaver, to answer any questions the Committee or parties may have regarding the operational benefits of various renewable technologies and storage technologies.

5. Cross-Examination of witnesses.

Staff reserves the right for cross-examination of witnesses in all areas requiring adjudication. These include those areas identified above as well as any others identified by the Presiding Member as requiring hearing testimony. Staff may waive cross-examination in some areas or for some witnesses. Staff does not anticipate that cross-examination will exceed 30 minutes for any subject area, and will likely be considerably less. The scope of cross-examination will generally be focused on the disputed issues identified above.

6. List of Exhibits.

See attached **Staff's Exhibit List**.

7. Scheduling Considerations.

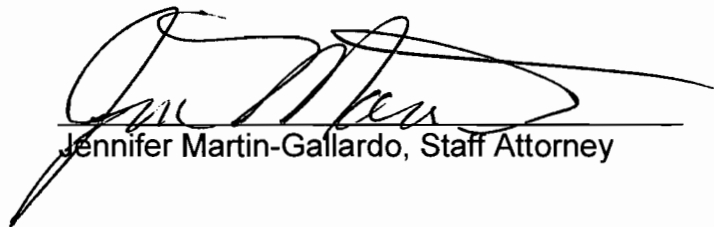
Staff proposes that the hearing have the following order for hearing topics:

Tuesday, July 29: (1) Project Description; (2) Storage (if required); (3) Natural Gas; (4) Traffic and Transportation (glint and glare); (5) Cultural Resources.

Wednesday, July 30: (1) Biological Resources; (2) Alternatives; (3) Overriding Considerations.

Date: July 21, 2014

Respectfully Submitted,



Jennifer Martin-Gallardo, Staff Attorney

Staff's Exhibit List



Docket Number: **09-AFC-07C**

Date: July 21, 2014

Project Name: **PALEN SOLAR ELECTRIC GENERATING SYSTEM**

STAFF'S EXHIBIT LIST

Exhibit	Docket Transaction Number	Title of Document (from Docket Log)	Subject Areas
2000	200442	Palen Solar Electric Generating System FSA - Part A	All but Cultural Resources and Air Quality
2001	200564	Palen Solar Electric Generating System Final Staff Assessment - Part B	Cultural Resources
2002	200807	Energy Commission Staff's Testimony and Errata to the Final Staff Assessment Part A	Executive Summary, Public Health, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, and Alternatives.
2003	200980	Rebuttal testimony filed October 21, 2013	Alternatives, Biological Resource, Compliance, Project Description, Cultural Resources, Geology and Paleontology, Traffic and Transportation, Worker Safety and Fire Protection, and Visual Resources.
2004	200847	Ethnographic Report Informing the Final Staff Assessment	Cultural Resources
2005	200995	CDFW Outline for Proposed Desert Kit Fox Health Monitoring and Mitigation Program	Biological Resources
2006	200951	SCAQMD Preliminary Determination of Compliance	Air Quality

STAFF'S EXHIBIT LIST (Continued)

Exhibit	Docket Transaction Number	Title of Document (from Docket Log)	Subject Areas
2007	200902	Energy Commission Staff's Testimony and Errata to the Final Staff Assessment Part B	Cultural Resources
2008	201006	Final Staff Assessment – Supplement A (I-10 Corridor)	All
2010	201030	Lorey Cachora Declaration	Cultural Resources
2011	201088	Conditions of Certification PAL-5 and PAL-9	Geology and Paleontology
2012	201089	Condition of Certification Worker Safety-5	Worker Safety
2013	201097	Final Staff Assessment Part C	Air Quality
2015	201322	<u>SCAQMD's Comments to the Final Staff Assessment for Palen Solar Generation, dated November 22, 2013</u> FSA comments from SCAQMD	Air Quality
2016	201373	Final Determination of Compliance	Air Quality
2017	202480	Staff's Supplemental Supplemental Staff Assessment and Testimony	Project Description, Biological Resources, Cultural Resources, Traffic and Transportation, Overriding Considerations – TES, Natural Gas Consumption
2018	202773	Staff's Rebuttal Testimony	Traffic and Transportation, Biological Resources, Visual Resources (in BIO section), Noise (in BIO section), Cultural Resources, Overriding Considerations – TES (Incorporating by Reference TN 202210)
2019	202210	CEC Staff's Response to Petitioner's Motion to Reopen Evidentiary Record (Attachments Incorporated as Testimony via TN 202773)	Biological Resources, Overriding Conditions – TES, Cultural Resources

STAFF'S EXHIBIT LIST (Continued)

Exhibit	Docket Transaction Number	Title of Document (from Docket Log)	Subject Areas
2020	202766	Staff's Proposed Condition of Certification CUL-1 (Clean)	Cultural Resources
2021	202000	Fall 2013 Nocturnal Migration Surveys for Palen Solar Electric Generating System	Biological Resources
2022	202002	Fall 2013 Avian Field Surveys for Palen Solar Electric Generating System	Biological Resources
1174	202753	Avian & Bat Monitoring Plan; 2013-2014 Winter Report	Biological Resources
2023	202700	Ivanpah Glare Video	Traffic and Transportation
2024	202583	Email – Re – Ivanpah Solar Power Plant Site Recon, dated May 9, 2014 (Gary Cathey)	Traffic and Transportation
2025	202584	Email – with attached Palen Aeronautical Study, dated June 9, 2014	Traffic and Transportation
2026	202585	Email – Email Re: Request for Ivanpah Report, dated June 10, 2014	Traffic and Transportation
2027	202708	Determination of No Hazard to Air Navigation (Tower #1)	Traffic and Transportation
2028	202709	Determination of No Hazard to Air Navigation (Tower #2)	Traffic and Transportation
1191	202734	ISEGS Heliostat Positioning Plan Report, dated July 17, 2014 (Duplicates TN 202724)	Traffic and Transportation