

# Memorandum

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Telephone: (916) 654-4781  
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To: **Commissioner Karen Douglas**, Commissioner - Presiding Member  
**Chairman Robert B. Weisenmiller**, Chairman - Associate Member  
**Paul Kramer**, Hearing Officer



From: **California Energy Commission -** Craig Hoffman  
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Subject: **CALICO SOLAR PROJECT PV AMENDMENT (08-AFC-13C)**  
**ISSUES IDENTIFICATION REPORT**

Attached is staff's Issues Identification Report for the Calico Solar Project PV Amendment. This report serves as a preliminary scoping document that identifies issues that Energy Commission staff believes will require careful attention and consideration. Energy Commission staff will present the issues report at the next scheduled Informational Hearing and Site Visit or Status Conference separately noticed by the assigned Committee for the project.

This report also provides staff's proposed schedule of events for the amendment process.

Attachment

cc: Docket 08-AFC-13C

# **CALICO SOLAR PROJECT PV AMENDMENT**

**(08-AFC-13C)**

## **ISSUES IDENTIFICATION REPORT**

**CALIFORNIA ENERGY COMMISSION**

**Siting, Transmission and Environmental Protection Division**

# ISSUES IDENTIFICATION REPORT CALICO SOLAR PROJECT PV AMENDMENT

(08-AFC-13C)

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# **ISSUES IDENTIFICATION REPORT**

Energy Commission Staff Report

## **PURPOSE OF THE REPORT**

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This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that have been identified in the case thus far. These issues have been identified as a result of our discussions with federal, state, and local agencies, and our review of the Petition to Amend filed by K Road Calico Solar, LLC on June 26, 2012.

The Issues Identification Report contains a project description, summary of potentially significant environmental and engineering issues, and a discussion of the proposed project schedule. The staff will continue to address the status of issues and progress towards their resolution in periodic reports to the Committee.

## **JURISDICTION**

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On May 26, 2012, Governor Brown signed into law Assembly Bill 1073. This bill allows for the proposed Calico Solar Project (CSP) to re-file for approval by the Energy Commission as a photovoltaic (non-thermal) project. Specifically, the bill language allows for:

The owner of a proposed solar thermal powerplant, for which an application for certification was filed with the commission after August 15, 2007, and certified by the commission and, of a project on federal land, for which a record of decision was issued by the Department of the Interior or the Bureau of Land Management before September 1, 2011, may petition the commission not later than June 30, 2012, to review an amendment to the facility's certificate to convert the facility, in whole or in part, from solar thermal technology to photovoltaic technology, without the need to file an entirely new application for certification or notice of intent pursuant to Section 25502, provided that the commission prepares supplemental environmental review documentation, provides for public notice and comment on the supplemental environmental review, and holds at least one public hearing on the proposal.

Based upon this criteria, the Calico Solar Project has submitted a petition to amend the Stirling Engine (Suncatcher) technology to photovoltaic under Energy Commission jurisdiction.

## **COLLABORATION WITH THE BUREAU OF LAND MANAGEMENT**

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During the original Calico Solar Project proceeding in 2009 and 2010, Energy Commission and BLM staff worked closely together on the review and analysis of the project. The Energy Commission and BLM staff issued a joint Draft Environmental

Impact Statement/Staff Assessment (DEIS/SA) for the Calico Solar Project on March 30, 2010. The DEIS/SA contained the Energy Commission staff's and BLM's environmental, public health and engineering evaluation of the proposed Calico Solar Project.

The Energy Commission and BLM staff subsequently issued separate final review documents and a Supplemental Staff Assessment was published in two parts by the Energy Commission on July 21, 2010, and the second on August 9, 2010. The BLM and Energy Commission approved separate but consistent decisions on the original project in October of 2010. Secretary of the Interior, Ken Salazar approved the Calico Solar Project on October 20, 2010 and on October 28, 2010, the Energy Commission met at a special Business Meeting and adopted the decision licensing the Calico Solar Project.

On July 19, 2012 the BLM received an application to amend the right-of-way grant and a new draft plan of development. The BLM will be preparing a supplemental EIS for the project and anticipates approximately a 12-month process for review and decision on the application. The BLM right-of-way and draft plan of development are consistent with the petition to amend submitted to the Energy Commission. The proposed project would be constructed on an approximate 3,855-acre site and include 2 phases. Phase 1 is going to be south of the BNSF railroad tracks and phase 2 is north of the tracks. Energy Commission staff will continue to work cooperatively with BLM staff to review the revised project and ultimately the Energy Commission and BLM will issue separate final decisions.

## **AMENDMENT PROCESS**

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The proposed Calico Solar Project PV Amendment will be processed as an amendment to the Calico Solar Project Final Decision that was certified by the Energy Commission on December 1, 2010. The purpose of the Energy Commission's review process is to assess the impacts of this proposal on environmental quality and public health and safety. The review process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Decision and, if the project, as modified, will remain in compliance with applicable laws, ordinances, regulations, and standards (Title 20, Calif. Code of Regulations, section 1769).

## **COMMITTEE ORDERS / DIRECTION**

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The Calico Committee provided staff, the applicant, and interested parties direction on the processing of the 2011 Calico Amendment. Since the 2012 Petition to Amend is a new filing, staff would request that the Committee reissue any direction that is appropriate or provide new direction for the processing of the 2012 amendment.

## PROJECT DESCRIPTION

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On June 26, 2012, K Road Calico Solar, LLC filed a petition with the California Energy Commission requesting to modify the Calico Solar Project (CSP). The 663.5-megawatt project was certified by the Energy Commission on December 1, 2010. The proposed project will be constructed on an approximate 3,855-acre site located in San Bernardino County, California. The project site is approximately 37 miles east of Barstow, 17 miles east of Newberry Springs, 57 miles northeast of Victorville, and approximately 115 miles east of Los Angeles (straight line distances).

### **Proposed Modification (Calico Solar Project Amendment)**

K Road Calico Solar, LLC proposes changes to the site footprint, layout and electrical generation technology associated with the approved project. The primary changes include:

- the proposed technology to be utilized for the modified project would be photovoltaic (PV) modules mounted on (1) horizontal single-axis trackers or (2) a fixed tilt racking system. Fixed tilt PV panels may also be used on the site where terrain or other site constraints preclude the use of single-axis trackers.
- the modified project would still be constructed in two phases, Phase 1 would be located primarily south of the Burlington Northern Santa Fe (BNSF) railroad and Phase 2 would be located primarily north of the railroad.
- a new access route south of the BNSF railroad tracks to the most western portion of the project.

In addition to changing the technology, K Road Calico Solar proposes to reconfigure the project layout to reduce the project footprint from 4,613 acres to 3,855 acres and provide the following:

- remove the 5 to 1 tortoise mitigation lands located in the northern project site.
- create a wildlife movement corridor through the center of the project
- reduce impacts to the White-Margined Beardtongue from four distinct areas to one.
- exclude 69 acres of Mojave Fringe-Toed Lizard habitat. This total acreage includes 17 acres of the 21.4 total acres of high quality breeding habitat.
- exclude the lands donated to the Bureau of Land Management (Catellus Lands) within Section 17 from the site.

The amendment proposes to alter the phasing of the project to reduce access issues associated with the northern portion of the site. Phase 1 will be located primarily south of the BNSF railroad line and will include the main access road, the main services complex, the on-site substation with a shorter transmission line interconnecting with the Pisgah Substation, a water well (located north of the railroad), a water line and a portion of PV solar collectors. Phase 2 will be located entirely north of the railroad.

Phase 1 of the modified project will encompass approximately 2,042 acres and will consist of the following components:

- relocated main access road;
- relocated main services complex (including temporary lay down area);
- relocated on-site substation and shortened transmission line to the Pisgah Substation;
- water well located north of the railroad, and waterline to the main services complex (same source and well location, with a longer waterline crossing under the railroad); and
- solar field comprised of PV modules producing up to 294 MW using today's efficiency numbers and preliminary layouts.

Phase 2 of the modified project will be constructed after Phase 1, and will encompass approximately 1,814 acres and consist of the following components:

- bridge constructed over the railroad;
- continuation of the main access road north of railroad; and
- solar field comprised of up to 324 MW of PV modules using today's efficiency numbers and preliminary layouts.

### **Calico Solar Project approved by the Energy Commission on December 1, 2010**

The Calico Solar Project approved by the Energy Commission included the following components:

Phase 1 of the approved project, which is located primarily north of the railroad and is comprised of 1,876 acres, includes the following elements:

- main access road;
- bridge constructed over the railroad;
- main services complex (including temporary lay down area);
- on-site substation and two-mile transmission line to the Pisgah Substation;
- water well and an approximately one-mile waterline to the main services complex;
- solar field comprised of SunCatchers producing up to 275 MW; and
- hydrogen generation, storage, and distribution system for SunCatchers located north of the railroad.

Phase 2 of the approved project, which is located south of the railroad and south of Phase 1, is comprised of 2,737 acres, and includes the following elements:

- solar field comprised of SunCatchers producing up to 388.5 MW; and
- hydrogen generation, storage, and distribution system for the SunCatchers located south of the railroad.

## **Proposed Modifications to Site Technology**

K Road Calico Solar is proposing to use PV technology to produce up to up to 618 MW of installed electrical generation capacity for the modified project. The SunCatcher technology is no longer a viable technology for use on the site, thereby necessitating the change.

The inverter block is the basic building block of the PV arrays. Each basic inverter block would be similar in configuration and capability. Two possible arrangements are described below, each for a 1.52 MW-ac inverter block: (1) horizontal single-axis trackers (Tracker System), (2) fixed tilt racking system (Fixed Tilt System). In the Tracker System the rows of PV modules are controlled by a tracker motor and control system which rotates all of the modules in unison around a north-south axis as they follow the daily movement of the sun from east to west. In the Fixed Tilt System, the rows of modules run east-west and the modules are installed at a fixed tilt orientation facing south.

### Tracker System

One currently available tracker system is the Oasis system by SunPower. Based on SunPower's latest 435 W-dc modules, in this Tracker System configuration, each 1.52 MW-ac inverter block is made up of approximately 36 rows containing approximately 40 PV modules per row, totaling about 2160 modules per inverter block. A basic inverter block for this tracker system will measure approximately 644 feet by 481 feet and occupy a space of approximately 7.1 acres. Inverter blocks may be reduced as required by site characteristics such as boundaries, roads, topography, or similar constraints.

A row consists of 40 PV modules attached to a horizontal steel shaft. These shafts are supported by vertical steel posts that are spaced up to 18 feet apart. The steel shafts are connected by a main drive shaft, which is supported by steel posts. The support posts generally project 5 to 6 feet above the ground and are vibrated to a roughly equivalent depth into the ground. To account for minor ground surface differences, and minimize grading, the steel posts may vary in height above the ground surface more than the 5 to 6 feet mentioned above in order to maintain the axis of the tracking system in a horizontal orientation. The maximum height of the structure will be approximately 9 feet when the modules are at their maximum tilt angle.

### Fixed Tilt System

In a Fixed Tilt System based on First Solar 90 W-dc modules using a 1.52 MW-ac inverter block size, modules are installed on a fixed racking system 5 modules high in a landscape orientation, with 50 modules per rack and 414 racks per inverter block, a total of 20,700 modules per inverter block. This inverter block for this fixed tilt system will measure approximately 679 feet by 520 feet and occupy a space of approximately 8.1 acres. Inverter blocks may be reduced as required by site characteristics such as boundaries, roads, topography, or similar constraints.



A fixed tilt racking system is supported by vertical steel posts that are spaced about 12 feet apart. The support table to which the modules are attached is set at a fixed tilt angle, typically 20 to 30 degrees from horizontal, and facing south. The support posts generally project 5 to 6 feet above the ground and are vibrated to a roughly equivalent depth into the ground. A fixed tilt system can follow the terrain and to account for ground surface differences, which may reduce the amount of grading required. The support posts may vary in height above the ground surface more than the 5 to 6 feet mentioned. The maximum height of the structure will be approximately 9 feet depending on the tilt angle selected.

The PV modules that make up the inverter blocks have the capability to convert the sun's energy into direct current (DC) electricity, each producing a relatively small amount of electricity, about several hundred watts each at rated conditions. Modules are electrically connected in series and parallel arrangements. A series arrangement increases the collective output voltage and a parallel arrangement increases the current to the desired levels for the DC collection system.

The modules being considered for this modified project are produced by a number of world-class companies that have excelled in this industry. Among them are SunPower, Suntech, Yingli, Q-Cells, Trina, First Solar, and other manufacturers of silicon crystalline and thin film modules. For reasons of availability to support the modified project delivery requirements, multiple sources might be utilized. This is a common practice in the industry. Modules are generally quite similar in their physical and performance characteristics. Each module is encapsulated with tempered glass (or similar transparent material) on the front surface, with a protective and waterproof material on the back. The edges are sealed for weatherproofing, and there is often an aluminum frame holding everything together in a mountable unit. On the back of the module, there is a junction box, or wire leads, providing electrical connections.

### **Summary of Construction Activities and Methods of the Modified Project**

While the construction activities and methods proposed for the modified project would be similar to those described under the approved project in the Energy Commission Decision, the intensity of the construction activities would be reduced under the modified project. Installation of steel posts to support PV modules would not require the same heavy equipment as would have been required for SunCatcher pedestal and dish installation. Also, because PV technology does not require intense on-site assembly, the size of the workforce required during construction of the modified project would be reduced from the workforce required under the approved project. As a result, fewer construction vehicles would be needed for the modified project. The construction of the modified project is expected to take approximately four years, however, power could be available to Pisgah Substation as each inverter block is completed. As with the approved project, temporary power would be supplied by generators during construction of the modified project.

K Road Calico Solar would temporarily access phase 1 project features north of the railroad at the private crossing located at the extension of Hector Road, as granted by the CPUC. K Road Calico Solar is currently in negotiation with BNSF to obtain all

necessary approvals for this proposed access. After completion of the bridge, the bridge would provide the permanent access point to the modified project area north of the railroad for completion of phase 2 construction activities, as well as during operation of the facility.

### **Site Grading and Drainage**

Except for the initial pre-construction brush trimming (described below), the site preparation and maintenance parameters for the modified project, including operational brush trimming, blading, grading and other ground disturbance, would create no greater disturbance than would the approved project. Site grading and drainage for the modified project would be consistent with the permitted methodology described in the approved project and would meet the same standards set for the approved project.

Prior to construction of each phase of the modified project, the brush would be trimmed to a minimum height of 3 inches above ground, leaving the existing native plant root system in place to minimize soil erosion. After this initial trimming, the areas between PV rows would alternate between undisturbed areas and areas to be used as unimproved module access points, which would be accessed up to four times a year. Installation of the PV inverter blocks would be completed in such a way as to reduce the need for site grading and would not create more impacts than was contemplated under the approved project.

Under the modified project, the proposed design, grading, and treatment methods proposed for the paved main access road and other surface-treated roads would not change. However, in the modified project, the SunCatcher maintenance roads will be eliminated with the replacement of SunCatchers with PV modules. These surface-treated roads would be replaced in the modified project with unimproved module access points. The areas developed using PV technology have surface-treated access roads where inverter pads are located. All other access to the PV technology would be via unimproved module access points.

### **Summary of Modified Project Operations**

The modified project would operate 7 days per week, generating electricity during normal daylight hours when the solar energy is available. PV technology requires significantly lower maintenance (e.g., fewer moving parts and fewer periodic replacements of parts) and less washing than the SunCatcher technology. Therefore, the modified project would employ a reduced permanent workforce during operations. Under the approved project, the height of SunCatchers (approximately 40 feet above the ground surface) and the frequency of washings (monthly), would necessitate washing trucks with a mounted boom travelling and improved SunCatcher maintenance roads treated with soil stabilizer were contemplated between every other row of SunCatcher roads. Under the modified project, the SunCatcher operations and maintenance would be eliminated. For the operation and maintenance of the PV field in the modified project, no roads within the inverter blocks would be needed other than the main access road that provides access to each inverter pad. Instead, up to four times a

year, small vehicles would travel on unimproved module access points that would alternate with areas of native soil between every other row of PV modules.

## **POTENTIAL MAJOR ISSUES**

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This portion of the report contains a discussion of the potential issues the Energy Commission staff has identified to date. The Committee should be aware that this report may not include all of the significant issues that may arise during the case, since discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. The identification of the potential issues contained in this report is based on comments of other government agencies and on our judgment of whether any of the following circumstances could occur:

- Potential significant impacts which may be difficult to mitigate;
- Potential areas of noncompliance with applicable laws, ordinances, regulations or standards (LORS);
- Areas of conflict or potential conflict between the parties; and
- Areas where resolution may be difficult or may affect the schedule.

The following table lists all the subject areas evaluated and notes Biological Resources, Soil and Water Resources, Traffic and Transportation and Visual Resources as areas where potentially significant issues have been identified. Identification of an area as having no potential issues does not mean that an issue will not arise related to the subject area during the course of the amendment review process.

This report will not limit the scope of staff's analysis throughout this proceeding, but it acts to aid in the analysis of the potentially significant issues that the Calico Solar Project Amendment proposal poses. The following discussion summarizes the potential issues, identifies the parties needed to resolve the issues, and where applicable suggests a process for achieving resolution. At this time, staff does not see these potential issues as non-resolvable.

The table on the following page lists all the subject areas evaluated and notes that Biological Resources, Soil and Water Resources and Traffic and Transportation and Visual Resources have currently identified potentially significant issues. The table also indicates the subject areas in which staff, at the present time, expects to issue Data Requests (DRs). DRs in additional areas may become necessary as the case progresses.

Major Issues	DRs	Subject Area	Major Issues	DRs	Subject Area
No	Yes	Air Quality	No	Yes	Project Description
No	No	Alternatives	No	No	Public Health
Yes	Yes	Biological Resources	No	No	Reliability
No	Yes	Cultural Resources	No	Yes	Socioeconomics
No	No	Efficiency	Yes	Yes	Soils and Water Resources
No	No	Facility Design	Yes	Yes	Traffic and Transportation
No	No	Geological Hazards	No	No	Trans. Line Safety & Nuisance
No	No	Hazardous Materials Handling	No	Yes	Transmission System Design
No	No	Land Use	Yes	Yes	Visual Resources
No	No	Noise	No	Yes	Waste Management
No	No	Paleontological Resources	No	No	Worker Safety

DRs – Data Requests

## Biological Resources

The need to translocate desert tortoise from the project site continues to be a complex issue for this project and all utility-scale solar development projects in the Mojave Desert largely because translocation is viewed as an impact avoidance measure by the resource agencies and not mitigation for a project. Although the modified project would decrease the loss of desert tortoise habitat and avoid impacts to higher quality desert tortoise habitat than the approved project, the long-term ecological impacts of translocating tortoise is not entirely understood. Energy Commission staff will analyze the impacts of the modified project and change to PV technology to desert tortoise including translocation in comparison to the analysis of these impacts that was performed for the approved project. The terms of desert tortoise translocation would be determined during Section 7 consultation and upon issuance of a revised Biological Opinion, which requires the preparation of a Desert Tortoise Translocation Plan that meets all federal requirements. Since the Desert Tortoise Translocation Plan is a federally required plan under the Federal Endangered Species Act, the Energy Commission would aid in review of the plan but would not be an approver of the final plan. Staff will continue to work closely with the applicant, U.S. Fish and Wildlife Service, Bureau of Land Management, and California Department of Fish and Game on the identification of project impacts and mitigation for desert tortoise that occupy the Calico Solar Project site.

Staff has not received the results of biological field surveys for the proposed west access road under the modified project; therefore, staff understands this area to be unsurveyed. Not having biological survey results for this area could represent a delay in approval of the modified project.

Following licensing of the approved project and in accordance with Condition of Certification BIO-12, the applicant performed late-season botanical surveys from September 20 to 24, 2010 although no new special-status plant species were found.

Due to changes in the phasing design between the approved project and the modified project, staff believes portions of the new Phase 1 area were not subject to late-season botanical surveys. This survey effort covered the formerly proposed Phase 1 and select portions of the formerly proposed Phase 2 area, but since Phase 1 and 2 have switched under the modified project, a large portion of the currently proposed Phase 1 area may not have been subject to a late-season botanical survey. Since additional botanical surveys may have taken place since the licensing of the original project besides the September 2010 surveys, the environmental baseline for special-status plants may differ than the baseline determined with approval of the original project. If late-season surveys have not been performed over the remaining portions of the new Phase 1 and Phase 2 boundaries, these surveys could be performed this late-summer/fall season (2012) although surveys need to be timed appropriately following a significant summer monsoonal rain event in accordance with BIO-12.

## **Soils and Water Resources**

The project site is traversed by numerous drainages that convey intermittent flash flood flows. Site development could affect these flows and result in downstream erosion and sedimentation that could have significant impacts on environmental resources. Flood flows could also impact solar panel elements, buildings, vehicle access roads, and potentially impact the BNSF railroad. Detailed grading and drainage control plans need to be developed for the project that address these potential impacts and provide mitigation measures that would render these hazards less than significant, both as a protection to the environment and to existing infrastructure (BNSF), while assuring the continued dispatchability of the renewable energy source. Due to unsuccessful attempts by the project owners to satisfy these issues from the initial project filing through the current filing and configuration, staff is concerned about the time required to develop the detailed final drainage, erosion and sediment control plan required for project development. Staff has and will continue to address these issues through data requests to the applicant.

The identified water supply for the project is a groundwater well located on the north side of the BNSF railway. The project would construct the main services complex to an area south of the BNSF railway. The California Public Utilities Commission Decision 11-10-025 dated October 13, 2011, does not allow for a water conveyance pipeline across the BNSF right-of-way. The applicant will need to resolve this issue with BNSF or propose a new water supply source.

The modified project proposes two evaporation ponds for process wastewater treatment and disposal similar to the original project. The owner acknowledges they must submit a Report of Waste Discharge (ROWD) to staff and the Lahontan Regional Water Quality Board for preparation of waste discharge requirements that must be included in staff's analysis in accordance with the Energy Commission's in-lieu permit authority. Staff is concerned that the owner has not submitted a ROWD as a part of the amendment application. The process for developing updated waste discharge requirements could potentially cause a delay in the project schedule.

## **Traffic and Transportation / Access**

Access over Burlington Northern Santa Fe Railway Company (BNSF) railroad tracks is also an issue. BNSF stated in a letter to Craig Hoffman, dated July 13, 2012:

*K Road Calico brought a CPUC proceeding to compel BNSF to provide a crossing, but the crossing rights K Road Calico obtained from the CPUC were much more limited than the crossing rights K Road Calico discusses in the Second Amended Petition. Most notably, the CPUC expressly declined to order BNSF to allow a water line crossing, and the CPUC did not authorize K Road Calico to use the Hector Road grade crossing for construction and operations pending delayed construction of an elevated crossing for Phase 2. The project design and proposed sequencing contained in the Second Petition to Amend do not reflect the reality of K Road Calico's limited crossing rights.*

Energy Commission staff has also reviewed the California Public Utilities Commission Decision 11-10-025 dated October 13, 2011. Findings of Fact, 3 on page 25 identified that:

*Calico has a current, reasonable need for a crossing in order to conduct pre-construction activity that does not require the BLM's Notice to Proceed with project construction, such as conducting necessary well tests, performing survey work, and bringing investors and government personnel to the site.*

Energy Commission staff is of the understanding that certain design features have not yet been approved by the CPUC to cross the BNSF railroad tracks. It is also staff's understanding that preconstruction activities are within the scope of the CPUC decision and that Energy Commission staff may cross the railroad tracks consistent with the provisions of the decision.

Staff will continue to work with the applicant and BNSF to clarify access issues and may request additional information as necessary.

## **Traffic and Transportation / Visual Resources**

Glint and glare could result from reflections of the sun from the glass-surfaced photovoltaic (PV) modules. Bright reflective diffuse or specular reflections of the sun could cause safety hazards and potentially significant impacts on users of the area traffic and transportation system. Motorists on Interstate 40 and National Trails Highway (commonly known as Route 66) along the southern boundary of the modified project site, and possibly other motorists in the area, could be affected by glint and glare from the PV modules. Based on figures in Section 2 of the Petition to Amend, "Description of Project Amendment," the proposed PV solar fields would border the BNSF railroad through the modified project site. Glint and glare from PV modules could interfere with safety and operational functions, including signaling and the ability of BNSF train crews to see potential safety hazards.

The project owner has provided inadequate information to assess potential impacts related to glint and glare for analysis in the Traffic and Transportation and Visual Resources sections of the staff assessment. Section 6.5 of the 2012 Petition to Amend, “Visual Resources,” states that “[t]he potential for glint and glare from the PV modules associated with the modified project is expected to be substantially less than the glint and glare analyzed for the SunCatcher technology during licensing proceedings.” While this statement may generally be true, no evidence or meaningful analysis has been provided to substantiate a conclusion. The project owner has not yet determined the type of PV system (horizontal single-axis trackers or fixed tilt) for installation at the modified project site. The glint and glare study has not yet been prepared, which must be used as the basis for the analysis and conclusions of potential glint and glare impacts of the modified project on motorists, train crews, and other viewer groups. Staff’s data requests include details for the required study; staff will continue to work with the project owner and BNSF to support development and completion of the glint and glare study.

## **DATA REQUESTS**

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Staff has prepared data requests for the petition to amend. A majority of the data requests were previously requested in the 2011 proceeding. Data requests include the request for a glint and glare study, hydrology report, visual simulations and greater project details. These documents will require a lengthy preparation time that will most likely will require more than 30 days. Staff wants to make sure the Committee is aware that the timing of the data requests will dictate project schedule and ultimately determine when staff deliverables are prepared.

## **ALTERNATIVES ANALYSIS**

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During the 2011 Calico Solar Project Amendment proceeding, the Calico Committee sought a more robust alternatives analysis than what was presented in the petition. The request was for the applicant to prepare alternatives that would avoid new impacts or reduce them to less than significant levels or would avoid or lessen exacerbation of previously identified environmental impacts. Based upon oral and written information submitted in the proceedings to date, the Siting Committee found that Staff would need to prepare an alternatives discussion must explore the feasibility of:

- A project located exclusively south of the BNSF tracks that uses only PV technology.
- A project located exclusively south of the BNSF tracks that uses only SunCatcher technology.
- A project located exclusively south of the BNSF tracks that uses a combination of PV/SunCatcher technology.
- A water well located south of the BNSF tracks.
- A project configuration that avoids washes and minimizes drainage impacts – with particular focus on impacts to the BNSF tracks and adjacent properties.
- Specifically regarding compensatory mitigation for desert tortoise, Mojave fringetoe lizard and other biological resources impacts, a project configuration

that would allow for 1:1 and 3:1 mitigation ratios and avoid the need for 5:1 mitigation ratios.

The applicant has prepared a petition for an amendment that responds to a number of the Committee's original concerns. The applicant has also identified the technology to be photovoltaic, without solar thermal technology.

Staff is currently processing the amendment petition without an alternatives analysis. An alternatives analysis would typically be needed if the amendment created impacts greater than what was previously identified with the original AFC proceeding.

Staff would request any additional direction that the Committee may have for staff, the applicant and interested parties.

## **STATUS REPORTS AND CONFERENCES**

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Staff will provide monthly status reports beginning in September 2012 to keep the Committee and public apprised of the progress of the amendment review. Staff suggests that the Calico Solar Project PV Amendment Committee also hold regular teleconference / Web Ex status conferences to provide the Committee an opportunity to verify how the project is meeting critical time frames and if the schedule is being met.

## **PROJECT SCHEDULE**

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On the following page is staff's proposed schedule for the key events of the project. The schedule does not include proposed dates, but days of when items would be proposed to be completed. Meeting the proposed schedule will depend on: the applicant's timely response to staff's data requests; determinations by other local, state and federal agencies; the submittal of required applications and approval of permits by federal agencies; and other factors not yet known.

The key driving force behind the proposed schedule is the submittal of a thorough and complete hydrology study, a glint and glare study and visual simulations along with other data requests.



## STAFF'S PROPOSED SCHEDULE

### Calico Solar Project Amendment - (08-AFC-13C)

ACTIVITY	DAY	DATE
Applicant files Calico Solar Project PV Amendment	--	6/26/12
Staff files Notice of Receipt	--	6/29/12
Staff files Issues Identification Report	--	8/14/12
Staff files data requests	--	8/13/12
Data Request Workshop		Sept
Informational Hearing / Status Conference	--	????
Applicant provides data responses (last response)	Day 1	
Data response and issue resolution workshop	Day 15	
Staff Assessment (SA) published	Day 70	
*Staff Assessment Workshop run by Committee	Day 85 - 90	
Staff Assessment (SA) – 30 day comment period ends	Day 100	
Response to comments on the SA	Day 130 - 140	
* Committee Recommendation to Commission	Day	
* Commission Business Meeting	Day	

\* The assigned Committee will determine this part of the schedule.



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION OF THE STATE OF CALIFORNIA  
1516 NINTH STREET, SACRAMENTO, CA 95814  
1-800-822-6228 – WWW.ENERGY.CA.GOV**

***FOR THE CALICO SOLAR PROJECT  
AMENDMENT***

**Docket No. 08-AFC-13C  
PROOF OF SERVICE  
(Revised 6/26/2012)**

**APPLICANT**

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\* Indicates Change

**DECLARATION OF SERVICE**

I, Craig Hoffman, declare that on August 14, 2012, I served and filed a copy of the attached Issues Identification Report. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at: [www.energy.ca.gov/sitingcases/calicosolar/index.html](http://www.energy.ca.gov/sitingcases/calicosolar/index.html).

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 or Chief Counsel, as appropriate, in the following manner:

***(Check all that Apply)***

**For service to all other parties:**

- Served electronically to all e-mail addresses on the Proof of Service list;
- Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "e-mail preferred."

**AND**

**For filing with the Docket Unit at the Energy Commission:**

- by sending an electronic copy to the e-mail address below (preferred method); **OR**
- by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

**CALIFORNIA ENERGY COMMISSION – DOCKET UNIT**  
 Attn: Docket No. 08-AFC-13C  
 1516 Ninth Street, MS-4  
 Sacramento, CA 95814-5512  
[docket@energy.ca.gov](mailto:docket@energy.ca.gov)

***OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:***

- Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

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



\* Indicates Change