STATE OF CALIFORNIA

ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of: The Calico Solar Project	DOCKET NO. 11-CAI-01 **VERIFIED COMPLAINT TO REVOKE CERTIFICATION**

Intervenor BNSF Railway Company ("BNSF") submits the following complaint:

1. Section 25534(a) of the Public Resources Code provides:

> The commission may, after one or more hearings, amend the conditions of, or revoke the certification for, any facility for any of the following reasons:
>
> > (1) Any material false statement set forth in the application, presented in proceedings of the commission, or included in supplemental documentation provided by the applicant;
> >
> > (2) Any significant failure to comply with the terms or conditions of approval of the application, as specified by the commission in its written decision.

Cal.Pub.Res. Code § 25534(a).

2. Pursuant to Section 25534(a)(1), BNSF hereby requests that the California Energy Commission (the "Commission") revoke the certification

previously issued in its Final Decision, effective December 1, 2010, on the ground that the Applicant's application and supplemental documentation contained material false statements regarding the commercial viability and availability of SunCatchers for the Calico Solar Project, and/or that there has been a "significant failure" by Applicant to comply with the terms or conditions of approval of the application as specified by the Commission in its December 1, 2010 written decision.

3. Applicant is Calico Solar, LLC, c/o Daniel J. O'Shea, Managing Director, 2600 10th Street, Suite 635, Berkeley, CA 94710. Email address: dano@kroadpower.com. Telephone: 510-981-1656.

4. Applicant originally proposed an 850 MW utility-scale solar thermal project using a wholly new, untested at utility scale, "SunCatcher" technology. In its original application, dated December 2008, Applicant represented that the project would use 34,000 individual SunCatchers on approximately 8,230 acres. Specifically, the Application states that a "500MW Phase I of the Project will consist of approximately 20,000 SunCatcher dishes located on approximately 5,838 acres. The 350MW Phase II of the Project will consist of approximately 14,000 SunCatcher dishes located on approximately 2,392 acres." Application at p.1-3 [Executive Summary], annexed as Exhibit A.

5. Applicant represented that "Phase I," which included the

emplacement of "approximately 20,000 SunCatcher dishes" would occur by 2010. See *id.* at p.2-3 [Project Objectives/Purpose and Need].

6. Applicant further represented that "Phase II," which included the emplacement of "approximately 14,000 SunCatcher dishes" would occur by 2014. See *id.* at p.2-2 [Project Objectives/Purpose and Need].

7. On May 14, 2010, in order "to reduce the environmental impacts associated with bighorn sheep and desert tortoise movement corridor" and to lessen "potential impacts to two known sensitive plant species," Applicant submitted a Supplement to Application for Certification, under penalty of perjury, representing that the project would utilize approximately 34,000 SunCatchers on a reduced project footprint of 7,130 acres. *See* Exhibit B at p. 1-4, 1-6. Applicant represented that construction was tentatively scheduled to occur over an approximate three-year period beginning in 2010 through 2012 for Phase 1, and a two-year period between 2013 and 2015 for Phase 2, assuming Southern California Edison completed the full transmission build-out necessary for Phase 2 by December 31, 2013. *See id.*, Report of Well Installation, Sampling and Aquifer Testing attached as Exhibit B to Supplemental Application for Certification, at 1-1.

8. On September 3, 2010, the Commission permitted Applicant to propose several reduced footprint project scenarios in order to further reduce the

Project's impacts to high quality habitat affecting desert tortoise and big horn sheep.

9. In response, on September 10, 2010, Applicant submitted an Updated Reduced Project Boundary Scenarios, under penalty of perjury, representing that the project would utilize 26,540 SunCatchers on a reduced project footprint of 4,613 acres. See Exhibit C [Applicant's Submittal of Updated Reduced Project Boundary Scenarios 5.5 and 6 Information, p.3, fig. 17 and p.9, Solar Layout-Scenario 5.5.]

10. In its Testimony with Exhibits for Scenarios 5.5 and 6, submitted under penalty of perjury on September 13, 2010, Applicant proposed a revised Project phasing of Phase 1, which would initially include the installation of 60 SunCatcher pedestals as part of Phase 1a. See Testimony of Felicia Bellows, p.2, annexed as Exhibit D.

11. On October 26, 2010, Ms. Bellows expressly testified, in connection with the proposed revisions to Phase 1, that SunCatchers would be on-line as early as July 29, 2011. As Ms. Bellows stated, under penalty of perjury: "From a financial -- from a financial, capital perspective, it makes no sense to put them up until the transmission is ready. So the earliest transmission's going to be ready is 7/31/2011, so you're not going to see SunCatchers until, you know, 7/29." See

Exhibit E, Transcript of October 26, 2010 Continuation of Committee Conference on Presiding Member's Proposed Decision, at p. 90.

12. However, as we describe below, by at least late October 2010, Applicant knew that SunCatchers would not be available by July 2011. Yet, they continued to make representations to the Commission that they planned to construct and emplace SunCatchers as part of the approved Calico Solar Project.

13. In the Applicant's Comments on the Presiding Member's Proposed Decision ("PMPD") for the Calico Solar Project, submitted under penalty of perjury on October 25, 2010, the Applicant stated: "While inclusion of detention basins or some other form of flood control devices may reduce the amount of developable land on the Project site, it would not cause a "significant decrease" in the number of SunCatcher units or the power output." See Applicant's Comments on PMPD, annexed as Exhibit F, at p. 17. The Applicant thereby reaffirmed the multiple references in the PMPD that the Project would include installation of 26,450 SunCatchers. *See id.*

14. The Calico Solar Project was initially certified by the Commission on October 28, 2010 and finally certified effective December 1, 2010. The Commission determined, "The Application for Certification of the Calico Solar Project as described in this Decision is hereby approved and a certificate to construct and operate the project is hereby granted." *See* Exhibit G, Final

Decision, Adoption Order at p. 2. The Commission determined that "[a]bout 26,540 SunCatchers, configured in 442.5 MW groups of 60 SunCatchers will be constructed on the project site." *See id.*, Introduction at p. 2. The Commission determined that Phase 1 of the construction would take place during the first 26 months, with Phase 2 taking place during construction months 32-60. *Id.*, Soil & Water Resources, at p. 11. "Phase 1a would consist of 60 SunCatchers configured in a single group and much of the support facilities. Phase 1b and Phase 2 would contain the remaining 26,390 SunCatchers arranged in 1.5-MW solar groups of 60 SunCatchers per group, bringing the CSP [Calico Solar Project] to its net nominal generating capacity of 663.5 MW." *Id.*, Project Description p. 18.

15. Just three weeks later, on December 24, 2010, Tessera Solar North America consummated its sale of Applicant, Calico Solar, LLC ("Calico Solar"), to K Road Sun LLC, a subsidiary of K-Road Power, which is a company that focuses on PV power. At that time, Tessera Solar announced that it had done so, because had it determined that "SunCatchers would not be commercially viable in the near term." See Exhibit H. [CEC Calico Solar Amendment at page 3-1, §3.1.]

16. Nearly contemporaneously therewith, Southern California Edison announced the termination of its power purchase agreement with Applicant.

17. In addition, BNSF has recently learned that Applicant was aware, long before the Calico Solar Project was certified on December 1, 2010, that SunCatchers were not commercially viable or commercially available.

18. On May 17, 2011, in a proceeding before the California Public Utilities Commission, Daniel O'Shea, now Vice President of Applicant, testified that he was aware in "September or October" 2010 that SunCatchers were not "commercially available." See Transcript, dated May 17, 2011 ("May 17, 2011 Tr."), attached hereto as Exhibit I, at 69-70.

19. Yet, in September and October 2010, when Applicant made its subsequent submissions, under penalty of perjury, attesting to Applicant's anticipated use of 26,450 SunCatchers, Applicant failed to apprise the Commission of the commercial inviability and unavailability of the SunCatcher technology prior to the Commission's certifications on either October 28, 2010 or December 1, 2010.

20. As recently as June 3, 2011, Applicant confirmed that SunCatchers are not now commercially viable or available. As Applicant stated in its brief to the Commission on the issue of jurisdiction, "We expect SunCatchers to be commercially available 24 months after securing investor financing," Calico Solar, LLC Reply Brief on Jurisdiction, annexed as Exhibit J, at p. 3. In other words, the SunCatchers are not now commercially available.

21. Instead, the commercial viability and availability of SunCatchers is entirely dependent upon obtaining "investor financing," which, upon information and belief, Applicant has not yet been obtained.

22. Applicant's misrepresentations concerning its ability to obtain 26,540 SunCatchers was and is a material fact that, standing alone, requires revocation of the Commission's December 1, 2010 certification of the Calico Solar Project.

23. In addition, Applicant's conduct since the Commission's December 1, 2010 certification and its filing of a March 18, 2011 Petition to Amend make clear that Applicant has no intention of complying with the terms and conditions of approval of the application, as specified by the Commission in its written decision.

24. It has been manifestly unfair to put BNSF and other Intervenors whose interests are directly impacted by the Calico Solar Project in the untenable position of having to continue to protect their interests, without the Commission first requiring Applicant to demonstrate that the SunCatcher technology, upon which the Calico Solar Project and this Commission's jurisdiction is dependent, was and is, in fact, commercially viable and commercially available, and not reliant upon future contingent events, such as obtaining investor financing and a full transmission build-out.

25. In addition, BNSF has been harmed and prejudiced by Applicant's submissions based upon a technology that is not now commercially viable and available. BNSF has expended and continues to expend substantial resources, both human and monetary, and to incur expert and legal fees to address significant health, environmental and operational concerns arising from the Commission's processing and approval of the Calico Solar SunCatcher Project. BSNF should not be required to take actions to ensure the safety of its employees, agents and operations against the effects of a hypothetical solar generation facility dependent upon a technology that is not commercially viable or available, even as we speak.

26. Since Applicant never had, and does not have, the ability to provide utility-scale SunCatchers, the December 1, 2010 certification should be revoked, forthwith. Accordingly, BNSF requests that the Commission revoke its December 1, 2010 certification of the Calico Solar Project.

WHEREFORE, BNSF respectfully requests that the Commission revoke its December 1, 2010 certification of the Calico Solar Project on the ground that Applicant made numerous material misrepresentations in its Application and its supplemental submissions regarding the commercial viability and availability of SunCatchers and that the SunCatcher technology was, and still is, commercially unviable and commercially unavailable, and/or that there has been a "significant

failure" by Applicant to comply with the terms or conditions of approval of the application as specified by the Commission in its December 1, 2010 written decision.

June 30, 2011

Cynthia Burch

Cynthia Lea Burch
Katten Muchin Rosenman LLP

Attorneys for Intervenor BNSF Railway Company

VERIFICATION

I, Orest B. Dachniwsky, hereby declare:

I am Associate General Counsel for Intervenor BNSF Railway Company ("BNSF"). I have read the attached Verified Complaint, and know the contents thereof, and am informed and believe that the same is true. I am authorized to make this verification on behalf of BNSF.

I declare under penalty of perjury under the laws of the State of Texas that the foregoing is true and correct, and that this verification was executed on June 30, 2011 at Ft. Worth, Texas.

Orest B. Dachniwsky

Exhibit A

SES Solar One

Application for Certification

Volume 1

December 2008

Submitted to:
California Energy Commission
1516 9th Street, MS 15
Sacramento, CA 95814-5504

Bureau of Land Management
1661 S. 4th Street
El Centro, CA 92243

Submitted by:
SES Solar Three, LLC
SES Solar Six, LLC

Stirling Energy Systems
2910 East Camelback Road,
Suite 150
Phoenix, AZ 85016

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1.2 APPROVAL PROCESS

This Application for Certification (AFC) has been prepared according to the current California Energy Commission (CEC) power plant siting regulations including requirements of the California Environmental Quality Act (CEQA). Because the majority of the Project is located on public land administered by the Bureau of Land Management (BLM) California Desert District (CDD) and federal approval of the Project is required, this document is also being submitted to the BLM for review. Consequently, the AFC also contains information required by the BLM to make their decision in compliance with the National Environmental Policy Act of 1969 (NEPA).

This AFC contains:

- a discussion of the purpose and need for the Project,
- a detailed description of the Project,
- an assessment of the anticipated Project effects on the existing environment,
- a discussion of the Project's compliance with applicable laws, ordinances, regulations, and standards (LORS), and
- a discussion of Project alternatives including alternative sites and their associated environmental concerns.

This AFC was prepared based on the Memorandum of Understanding (MOU) developed between the CEC and the BLM (see Appendix A, Memorandum of Understanding). The MOU sets out the relative roles, responsibilities, and procedures CEC and BLM staff will follow when conducting their respective environmental reviews of the Project. The Applicant will conduct the construction and operation of the Project in accordance with all applicable LORS.

1.3 PROJECT DESCRIPTION

The Project will utilize the SunCatcher technology, a proprietary solar dish Stirling system developed by SES. This technology is innovative, technically proven, non-polluting, and cost-effective in large utility-scale deployment. Each SunCatcher consists of an approximate 38-foot high by 40-foot wide solar concentrator dish that supports an array of curved glass mirror facets (see Photographs 1-1, Suncatcher System, and 1-2, Power Conversion Unit). The mirrors collect and focus solar energy onto the heat exchanger of a Power Conversion Unit (PCU). The PCU converts the solar thermal energy into 25 kilowatts of electricity. Each SunCatcher operates independently, tracks the sun automatically, and generates grid-quality electricity. The SunCatcher holds one of the world's records for its efficiency (31.25 percent) in commercial conversion of sunlight into grid-quality electricity. SES has been developing and operating the technology since 1996, most recently at the National Solar Thermal Test Facility, located at Sandia National Laboratories in Albuquerque, New Mexico. (See Appendix B, Solar Stirling Engine, for more information on the SunCatcher's Stirling Engine.)

Construction of the Project is expected to begin in mid to late 2010 and will take approximately four years for completion of the full 850 megawatts. However, renewable power from the Project will come online much earlier. As groups of SunCatchers are constructed, their renewable power will immediately be supplied to the grid. After completion, the Project will operate approximately 3,500 hours per year and is expected to have an overall availability of approximately 99 percent.

The Applicant intends to develop the nominal 850MW project in two phases. The 500MW Phase I of the Project will consist of approximately 20,000 SunCatcher dishes located on approximately 5,838 acres. The 350MW Phase II of the Project will consist of approximately 14,000 SunCatcher dishes located on approximately 2,392 acres. All of the power will be transmitted to the SCE Pisgah Substation located near the southeastern corner of the site.

In order for the full 850MW project to be completed, SCE will have to expand the SCE Pisgah Substation to accommodate a 500kV switchyard, two initial 500/230kV transformers (ultimate design for four) and other ancillary facilities and to provide additional transmission capacity to the SCE Pisgah Substation. The additional transmission capacity is to be provided by removing and replacing the existing 65-mile Lugo-Pisgah 220kV No. 2 Transmission Line with a new 500 kV transmission line and looping the existing Eldorado-Lugo 500kV in and out of the new Pisgah 500kV Switchyard. New right-of-way into the Lugo Substation will be required west of the Mojave River because the existing right-of-way is constrained on both sides (home development) and insufficient room exists to support both the new Lugo-Pisgah 500kV transmission line and the remaining Lugo-Pisgah 220kV No. 1 Transmission Line.

Optional studies performed by SCE and California Independent System Operator (CAISO) indicate that some initial electrical generation (up to approximately 275MW) can be handled by the remaining Lugo-Pisgah No.1 220kV transmission line while the upgrades are being completed provided that the Pisgah Substation is expanded and that redundant telecommunication is provided to support a Special Protection System (SPS). According to SCE, construction of these upgrades may not be fully completed until 2015 based on longer than expected permitting timelines. Consequently, the two phases of the Project will allow a portion of power to be generated and transmitted during the interim period assuming permits for the Pisgah Substation expansion and required telecommunication facilities (combination of microwave, fiber-optic cable, and possible replacement of overhead ground wire on existing facilities) are provided as there is no physical space at the existing substation to connect the new Solar One generation tie-line and reliability problems exist that need to be mitigated by tripping the Project with an SPS.

A number of large scale renewable power producers are pursuing projects within the region and the associated upgrades to the existing SCE Pisgah Substation and transmission lines will benefit these projects. Completion of detailed environmental analysis in a timely manner is of critical concern to meet not only Solar One's development schedule, but also for SCE to meet its mandated RPS goals. Therefore SES has begun environmental analysis of potentially required investigations and has included the completed analysis within this AFC. See Appendix EE, Summary Environmental Report for the Proposed Lugo-Pisgah 500kV Transmission and Substation Upgrades.

Temporary access for construction of the Project will be provided from an existing road that comes off Interstate 40 (I-40) east of the SCE Pisgah Substation. The road transects a BLM Area of Critical Environmental Concern (ACEC) and will require some level of improvement. Long-term permanent access would be developed in the form of a bridge via the Hector Road interchange north of I-40 spanning the Burlington Northern Santa Fe (BNSF) railway. Equipment may be transported to the Project Site during construction by road and by rail (on the north side of the BNSF railway and east of Hector Road).

1.3 PROJECT BOUNDARY MODIFICATIONS

At the request of agency representatives and interested parties and to help lessen potential impacts to biological resources, the Applicant is proposing a modification to the current Project boundary as shown in Figure 1-1. The northern boundary has been moved south approximately 0.55 miles, allowing an approximate 0.65 mile corridor between the revised northern project boundary and the toe of slope of the Cady Mountains. The intent of the boundary modification is to reduce the environmental impacts associated with bighorn sheep and desert tortoise movement corridor and use of this area and to help avoid potential impacts to occurrences of two known sensitive plant species (three crucifixion thorn locations and four undescribed lupine species locations).

The Project boundary modification results in a reduction of the Project area from approximately 8,230 acres to approximately 7,130 acres. Other details of the Project layout remain the same as those evaluated in the SA/DEIS (Figure 1-1). It should be noted that the original project area of 8,230 acres was more than enough acreage to build the 850 mega watts (MW) project. Additional acreage was maintained to accommodate for the need to adjust or build around areas due to slope, flood areas or avoidance of sensitive resources, if necessary. The elimination of the 1,103 acres will not change the number of SunCatchers, spacing between SunCatchers or location of major project facilities (e.g., Main Services Complex, staging area (other than slight lessening of roads and fencing).

1.4 HYDROGEN SYSTEM MODIFICATIONS

1.4.1 Background

The Applicant described the hydrogen use, supply and storage in the AFC, filed in December 2008. In the original design, it was proposed that hydrogen would be supplied to the SunCatchers through a distributed system. Each of the Stirling Cycle Engine (SCE), within the SunCatcher unit, would contain 14 cubic feet of hydrogen gas, and each SunCatcher unit would be equipped with a 196-standard cubic feet (scf) k-bottle to replenish hydrogen gas lost within the gas circuit. K-bottles would be provided by a commercial hydrogen supplier. Section 4, Alternatives in the AFC described an alternative centralized hydrogen system.

The Applicant responded to CEC and BLM Data Requests 57-60 in July 2009, updating the hydrogen system to include a centralized hydrogen gas supply, storage and distribution system. The system included onsite generation of hydrogen through electrolysis and the storage of that hydrogen in a 36,400 scf steel storage tank. From the storage tank, the hydrogen would be piped to 95 individual compressor groups that include a compressor, a high pressure supply tank and a low pressure dump tank used to recover hydrogen from non operational Power Conversion Units (PCUs) through a return line. This centralized hydrogen distribution system was the system analyzed in the SA/DEIS.

At this time, the Applicant is evaluating the relative economic and efficiency advantages between the centralized hydrogen distribution system and a distributed system that utilizes k-bottles on the PCUs of all SunCatchers. This supplement describes both systems and provides an environmental assessment of each. The details of both the centralized hydrogen system and the distributed system have evolved over time, and this supplement to the AFC presents modifications to each system.

initiated several processes to competitively select renewable power projects that would minimize costs for their customers, minimize effects to the existing electricity system, and comply with state and federal permitting requirements. These utilities have signed several PPAs as a result of this procurement process. The Applicant has signed an initial 20-year contract with SCE under which SCE will buy all the energy produced from the first 500MW phase of the Project and has an option to purchase all the energy from the 350MW expansion phase as well.

To date, the CPUC has addressed its responsibilities in implementing the RPS in R.01-10-024, Order Instituting Rulemaking to Establish Policies and Cost Recovery Mechanisms for Generation Procurement and Renewable Resource Development, and R.06-02-012, Order Instituting Rulemaking That Is Specific to Renewables, which replaced earlier proceeding R.04-04-026.

In response to the RPS procurement process, there were 47 proposals submitted for renewable power and seven contracts were awarded. The Applicant investigated potential sites throughout California that were suitable for the development of a utility-scale solar electric generating facility, particularly those sites that were near transmission substations and in areas of good solar direct normal insolation.

The location selected for the Project is ideally suited for solar generation, given the high availability of solar energy at the site throughout the year, the level site topography, the ease of site access, the potentially minimal effect of the Project on environmental resources, and the availability of transmission capacity from nearby 220kV and 500kV transmission lines and the nearby SCE Pisgah Substation.

2.2 POWER PURCHASE AGREEMENT

Specific provisions of the PPA between SCE and the Applicant are described below.

- The initial contract term is 20 years.
- SCE commits to purchase all the output of the 850MW capacity solar power Project; the Project will consist of approximately 34,000 solar dish Stirling systems, also referred to as SunCatchers.
- The Project will be situated on approximately 8,230 acres of land in San Bernardino County, California, and will be constructed in two separate phases.

Under Phase I, Solar One will construct a solar power project with a total capacity of 500MW that will connect to the SCE Pisgah Substation via a new 230-kilovolt (kV) interconnect transmission line that the Applicant will construct. Under Phase II, SCE has the option to purchase an additional 350MW of electrical power. Transmission studies indicate that the addition of this volume of electricity (850MW) to the existing electrical grid will require upgrades to the SCE Lugo-Pisgah No. 2 220kV Transmission Line (approximately 65 miles) and the SCE Pisgah Substation, as discussed in Appendix EE. The total Project capacity, when complete in 2014, will be 850MW (gross).

2.3 GREENHOUSE GAS REDUCTION

Because global climate change poses a serious environmental and economic threat, California's governor and legislature have approved legislation to reduce California's contribution to greenhouse gas emissions. Under legislation approved in 2006 (Assembly Bill 32, Nunez, California Global Warming Solutions Act of 2006), the state established a goal of reducing its greenhouse gas emissions to 1990 levels by 2020. The California Air Resources Board, working with other agencies (including the CEC and CPUC), is developing a program that will achieve this goal. State agencies are currently considering a "cap and trade" system to reduce greenhouse gas emissions from several sectors of the California economy, particularly the electricity sector. Several western states, including California, have formed the Western Climate Initiative, which has the objectives of reducing regional greenhouse gas emissions to 15 percent below 2005 levels by 2020 and enacting a regional cap and trade system. Currently, this system is focused on the region's electric utilities. As of November 17, 2008 Governor Schwarzenegger signed Executive Order S-14-08 to streamline California's renewable energy project approval process and increase the state's Renewable Energy Standard to 33 percent renewable power by 2020.

From both a state and a regional perspective, the Project will contribute to reductions in greenhouse gas emissions from the electricity sector. The Project will provide 850MW of additional generating capacity and produce virtually no greenhouse gas emissions. The Project could also assist SCE in meeting a portion of its obligations under a state or western regional emissions reduction program. The nature of the Project technology is modular; therefore, as each 1.5MW group (60 SunCatchers) is installed, it can immediately commence power production. This characteristic means that the Project can start reducing the greenhouse gas emissions associated with meeting the electricity needs of SCE's customers shortly after installations begin.

2.4 PURPOSE AND NEED

2.4.1 Purpose of the Proposed Action

The primary purpose and need for the Project is to assist the state of California and SCE in meeting the RPS Program goals and reducing greenhouse gas emissions. Current state legislation calls on the state's electric utilities to produce 20 percent of their electricity from renewable sources by 2010 and reduce greenhouse gas emissions to 1990 levels by 2020.

The purpose of the Project is to:

- provide up to 850MW of renewable electric capacity under a 20-year PPA to SCE,
- contribute to the 20 percent (up to 33 percent by 2020) renewables RPS target set by California's governor and legislature,
- assist in reducing greenhouse gas emissions from the electricity sector,
- contribute to California's future electric power needs, and

Exhibit B

CALICO SOLAR

Applicant's Supplement to the Calico Solar (formerly Solar One) Application for Certification

Application for Certification (08-AFC-13)

May 2010

Submitted to:
Bureau of Land Management
2601 Barstow Road
Barstow, CA 92311

Submitted to:
California Energy Commission
1516 9th Street, MS 15
Sacramento, CA 95814-5504

Submitted by:
SES Solar Three, LLC
SES Solar Six, LLC

SES

Stirling Energy Systems
4800 N. Scottsdale Road, Suite 5500
Scottsdale, AZ 85251

Tessera Solar
power from stirling energy systems

May 14, 2010

Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Mr. Jim Stobaugh
BLM Project Manager
Attn: Docket No. 08-AFC-13
Bureau of Land Management
P.O. Box 12000
Reno, NV 89520

RE: Calico Solar (formerly Solar One) Project (08-AFC-13)
Applicant's Submittal of Supplement to the Calico Solar (formerly Solar One) Application for Certification

Dear Mr. Meyer and Mr. Stobaugh,

Tessera Solar hereby submits the Applicant's Supplement to the Calico Solar (formerly Solar One) Application for Certification. This Supplement provides a description and environmental assessment of Project updates, including modifications to the Project water supply, Project boundary, and hydrogen supply system. I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia L. Bellows
Vice President of Development

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Table 1-1
Potential Hydrogen Supply Systems

Feature	Centralized Hydrogen System	Distributed Hydrogen System
Storing hydrogen in main service complex	36,400 scf x 1 tank	36,400 scf x 1 tank
High-pressure supply tank	29,333 scf x 95 compressor groups	82 scf x 34,000 SunCatchers
Low-pressure supply tank	9,900 scf x 95 compressor groups	28 scf x 34,000 SunCatchers
Local Storage Tank	--	489 scf x 34,000 SunCatchers
Single SunCatcher	11 scf	11 scf
Total amount onsite	4,140,000 scf (23,000 lbs)	20,800,000 scf (116,000 lbs)

located at the Main Services Complex as described in the centralized system. However, the system would not deliver hydrogen through pipelines. In lieu of the distribution equipment, hydrogen will be filled from the hydrogen storage tank to each individual SunCatcher through trucks. Each SunCatcher will include an 82-scf high pressure supply tank, 28-scf low pressure dump tank, and a 489-scf local storage tank. In addition, each SunCatcher unit will contain a minimum of 11-scf of hydrogen at 580 psi at all times, resulting in a total of around 610-scf of hydrogen in each SunCatcher.

The k-bottles will be delivered back to each SunCatcher, utilizing the mirror-washing truck trips included in the SA/DEIS analysis. Hydrogen refilling and replacement trips are expected occur approximately three times per year. Table 2.15-1 presents a summary of differences between each hydrogen supply system.

Table 2.15-1
Potential Hydrogen Supply Systems

Feature	Centralized Hydrogen System	Distributed Hydrogen System
Storing hydrogen in main service complex	36,400 scf x 1 tank	36,400 scf x 1 tank
High-pressure supply tank	29,333 scf x 95 compressor groups	82 scf x 34,000 SunCatchers
Low-pressure supply tank	9,900 scf x 95 compressor groups	28 scf x 34,000 SunCatchers
Local Storage Tank	--	489 scf x 34,000 SunCatchers
Single SunCatcher	11 scf	11 scf
Total amount onsite	4,140,000 scf (23,000 lbs)	20,800,000 scf (116,000 lbs)

Offsite Consequence Analysis

The Project consists of up to 34,000 SunCatchers and will use hydrogen gas as the working fluid in the PCU. Because of the hazardous nature of hydrogen there is a risk that it may cause an offsite consequence upon uncontrolled release. That aspect of the project is presented in this section, and the Project conducted an offsite consequence analysis (OCA) based on Federal and State Risk Management Programs regulatory criteria. The criteria for an OCA require a worst-case release scenario be estimated to evaluate the potential hazard posed by hydrogen stored at the proposed Project site.

Accidental Release Process

The OCA conducted for the Project evaluated uncontrolled worst-case release scenarios, based on the conditions recommended in state and federal Risk Management Plan (RMP). The accidental release scenarios from the centralized system evaluated consist of the following:

- The release and ignition of the entire contents of the hydrogen storage tank;

SECTION 1 INTRODUCTION

This report summarizes the results of a groundwater exploration program conducted by Tessera Solar North America, Inc. (Tessera Solar, Applicant) through drilling test borings and installing two test wells on private land and land owned by the Applicant surrounded by the Calico Solar site in San Bernardino County, California. The Calico Solar site (Project) is located about 16 miles west of Ludlow, California north of Interstate Highway 40 (I-40; see Figure 1). Tessera Solar is currently permitting the site for development as a solar-powered electrical generation station. The investigation was performed to evaluate the potential for groundwater to serve as a water supply for construction and operation of the facility.

1.1 PROJECT DESCRIPTION

The Calico Solar Project includes the construction, operation, maintenance, and decommissioning of up to 850 megawatts (MW) of capacity by a solar power generating facility and its ancillary systems in two phases (the first phase would be developed for 275MW and the second for 575MW). The Project will consist of approximately 34,000 SunCatchers. The project layout is shown on Figure 2. Construction is tentatively scheduled to occur over an approximate three-year period beginning in 2010 through 2012 for Phase 1 and a two-year period between 2013 and 2015 for Phase 2, assuming Southern California Edison (SCE) completes the full transmission build-out necessary for Phase 2 by December 31, 2013.

Approval of the Project ROW Grant Application (Form 299, Applications CACA 49539 and 49537) will result in the issuance of a ROW Grant Permit for use of federal lands administered by the BLM. The Project would require an amendment to the 1980 California Desert Conservation Area (CDCA) Plan.

An on-site substation (*i.e.*, Calico Solar Substation [approximately 15 acres]) will be constructed to deliver the electrical power generated by the Project to the SCE Pisgah Substation (Figure 2). Approximately twelve to fifteen 220-kilovolt (kV) transmission line structures (90 to 110 feet tall) will be required to make the interconnection from the Calico Solar to the SCE Pisgah Substation. Each of these structures will be constructed within the Project site.

The Project will include a centrally located Main Services Complex (37.6 acres) that includes three SunCatcher assembly buildings, administrative offices, operations control room, maintenance facilities, and a water treatment complex including a water treatment structure, raw water storage tank, demineralized water storage tank, basins, and potable water tank. A 15-acre temporary construction laydown area will be developed adjacent to the Main Services Complex.

Tessera Solar's Supplemental Filing dated January 2010 had proposed that water for the Project would be supplied by groundwater from a well located within the Cadiz basin and brought onsite by rail. However, the favorable results of the groundwater exploratory program demonstrate that groundwater is a viable water source for the Project, and water supplied by the well in the Cadiz basin will not be needed as a primary supply. The well that has been installed and tested as part of this investigation (Well #3) will serve as primary water supply.

The expected average water consumption for the Project during construction is approximately 136 acre-feet per year (afy), and the maximum expected extraction during construction is 12.4 acre-feet (af) per month (93 gallons per minute [gpm]). Estimated monthly groundwater extraction required during the

Exhibit C

Tessera Solar
power from stirling energy systems

September 10, 2010

DOCKET
08-AFC-13
DATE SEP 10 2010
RECD. SEP 10 2010

Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Calico Solar (formerly Solar One) Project (08-AFC-13)
Applicant's Submittal of Updated Reduced Project Boundary Scenarios 5.5 and 6 Information

Dear Mr. Meyer:

Tessera Solar hereby submits updated information regarding Reduced Project Boundary Scenarios 5.5 and 6. Enclosed are the following figures:

- Scenarios 5.5 and 6 Desert Tortoise Sightings and Desert Tortoise Burrow Location Figures with BLM Designated Routes (base maps)
- Scenarios 5.5 and 6 SunCatcher Layout Figures
- Scenarios 5.5 and 6 Hydrogen Compressor Layout Figures

The enclosed Scenario 6 base maps include two changes from the versions docketed on September 8, 2010: 1) desert tortoise habitat is divided between 1:1 and 1;3 mitigation areas; and 2) BLM Designated Routes are now shown.

The boundaries of Scenario 5.5 were determined as follows:

URS determined the new line for the Scenario 5.5 boundary in an effort to protect the largest number of tortoise and burrows possible while providing maximum acreage and MW's for the Project. The boundary was discussed with the BLM, CDFG and USFWS.

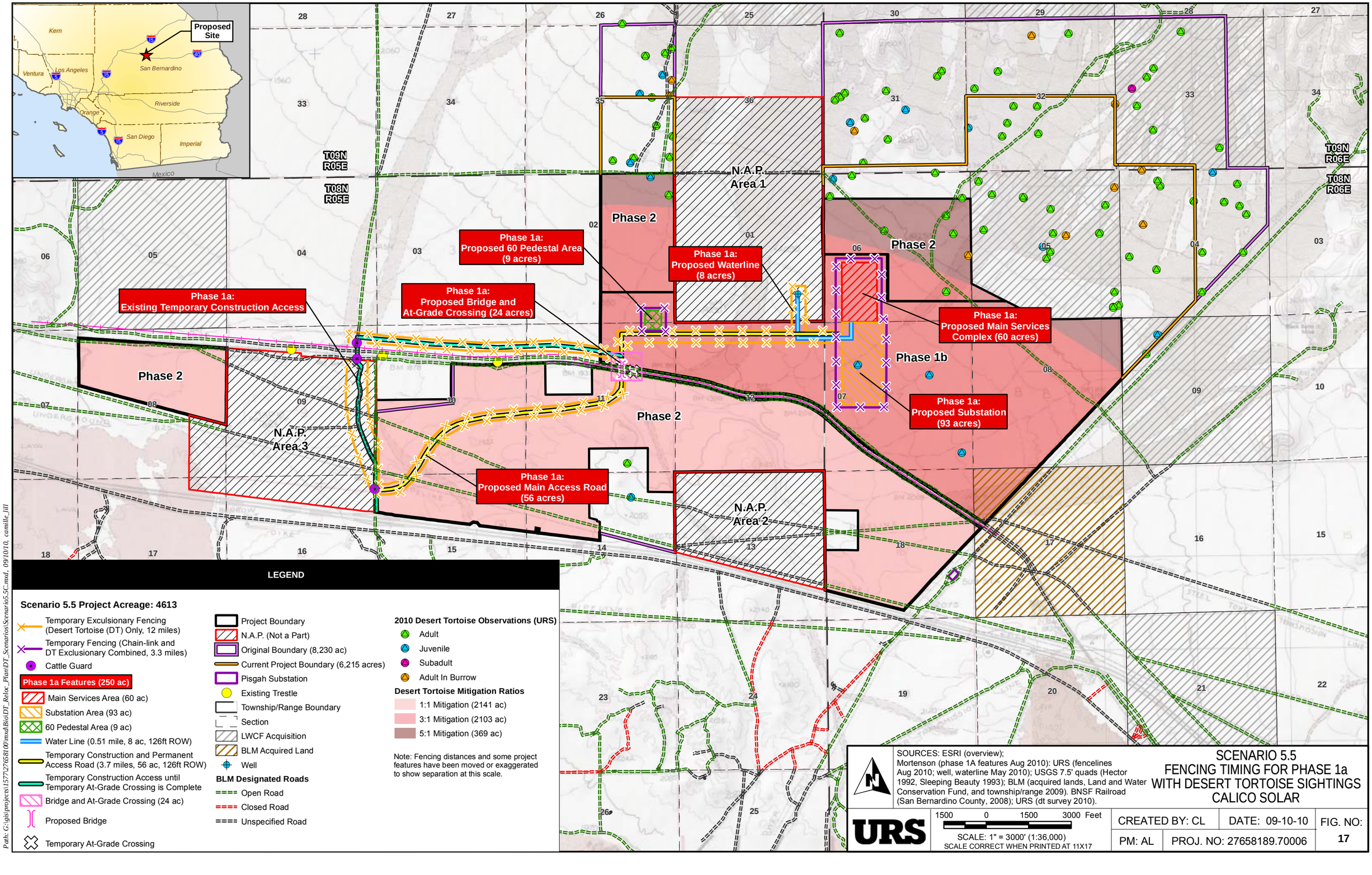
Because the triangle in Section 9 supports a high concentration of Desert Tortoise and Desert Tortoise burrows and is adjacent to the Pisgah ACEC, it was kept out of the proposed Scenario

5.5 boundary to minimize additional edge effects on Desert Tortoise in this area. The triangle in Section 8 was added back to the Project boundary because there were no Desert Tortoise and much fewer burrows in this area. To make up for adding Section 8 back into the Project boundary, 60 acres (equal to the acreage of the triangle in section 8) were removed from Section 6 by moving the northern boundary of Section 6 further south. In addition, more burrows could be avoided by moving the boundary south in Section 6 instead of creating a new boundary in a southeastern, diagonal direction through Section 5, and this boundary also minimized the level of edge effects on Desert Tortoise in the newly conserved area.

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia L. Bellows
Vice President of Development



LEGEND

Scenario 5.5 Project Acreage: 4613

- Temporary Exculsionary Fencing (Desert Tortoise (DT) Only, 12 miles)
- Temporary Fencing (Chain-link and DT Exclusionary Combined, 3.3 miles)
- Cattle Guard

Phase 1a Features (250 ac)

- Main Services Area (60 ac)
- Substation Area (93 ac)
- 60 Pedestal Area (9 ac)
- Water Line (0.51 mile, 8 ac, 126ft ROW)
- Temporary Construction and Permanent Access Road (3.7 miles, 56 ac, 126ft ROW)
- Temporary Construction Access until Temporary At-Grade Crossing is Complete
- Bridge and At-Grade Crossing (24 ac)
- Proposed Bridge
- Temporary At-Grade Crossing

- Project Boundary
- N.A.P. (Not a Part)
- Original Boundary (8,230 ac)
- Current Project Boundary (6,215 acres)
- Pisgah Substation
- Existing Trestle
- Township/Range Boundary
- Section
- LWCF Acquisition
- BLM Acquired Land
- Well

BLM Designated Roads

- Open Road
- Closed Road
- Unspecified Road

2010 Desert Tortoise Observations (URS)

- Adult
- Juvenile
- Subadult
- Adult In Burrow

Desert Tortoise Mitigation Ratios

- 1:1 Mitigation (2141 ac)
- 3:1 Mitigation (2103 ac)
- 5:1 Mitigation (369 ac)

Note: Fencing distances and some project features have been moved or exaggerated to show separation at this scale.

SOURCES: ESRI (overview); Mortenson (phase 1A features Aug 2010): URS (fencelines Aug 2010; well, waterline May 2010); USGS 7.5' quads (Hector 1992, Sleeping Beauty 1993); BLM (acquired lands, Land and Water Conservation Fund, and township/range 2009). BNSF Railroad (San Bernardino County, 2008); URS (dt survey 2010).

SCENARIO 5.5
FENCING TIMING FOR PHASE 1a WITH DESERT TORTOISE SIGHTINGS
CALICO SOLAR

URS

1500 0 1500 3000 Feet

SCALE: 1" = 3000' (1:36,000)
SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CL	DATE: 09-10-10	FIG. NO: 17
PM: AL	PROJ. NO: 27658189.70006	

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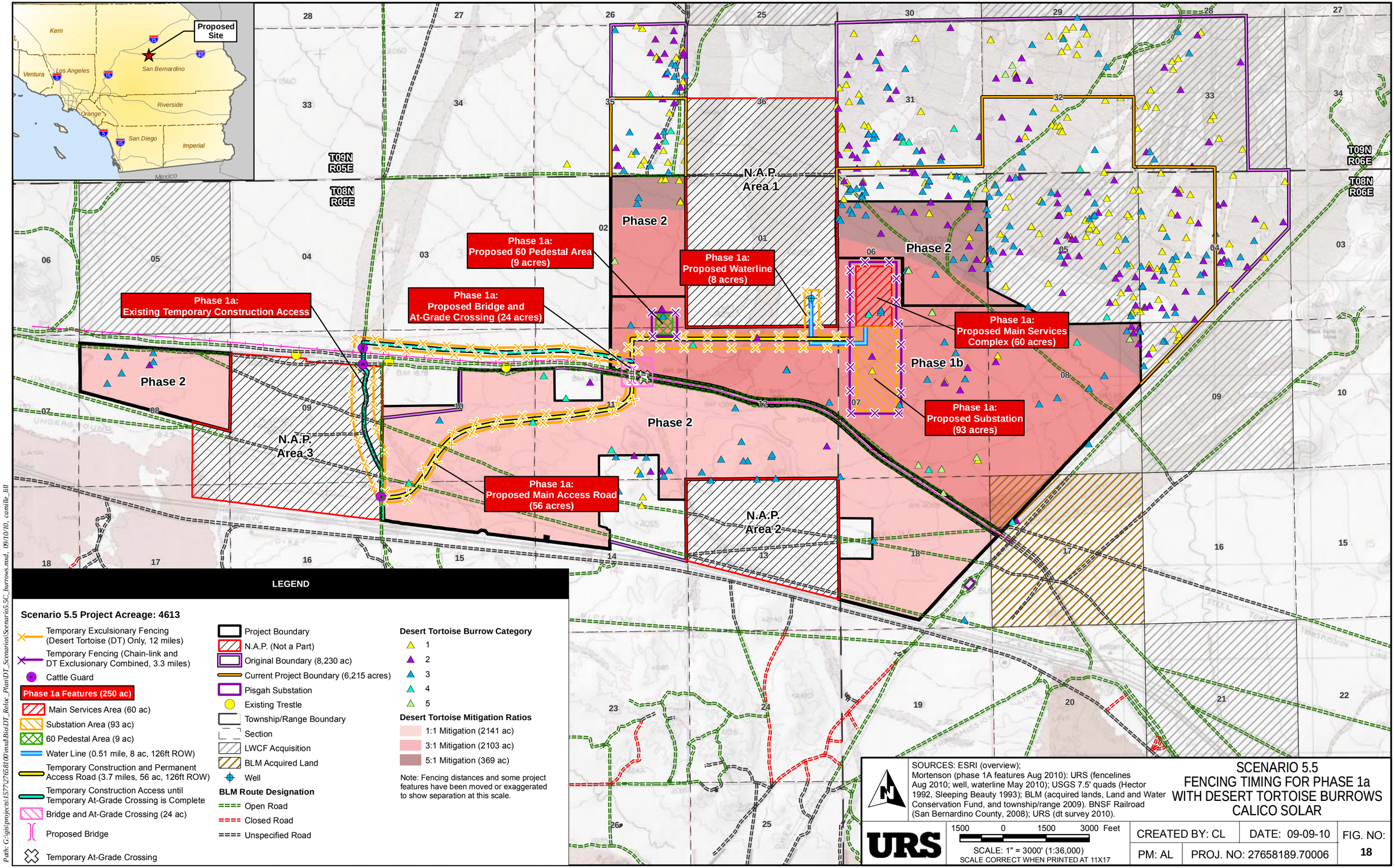

LEGEND

Scenario 5.5 Project Acreage: 4613

- Temporary Exculsionary Fencing (Desert Tortoise (DT) Only, 12 miles)
- Temporary Fencing (Chain-link and DT Exclusionary Combined, 3.3 miles)
- Cattle Guard

Phase 1a Features (250 ac)

- Main Services Area (60 ac)
- Substation Area (93 ac)
- 60 Pedestal Area (9 ac)
- Water Line (0.51 mile, 8 ac, 126ft ROW)
- Temporary Construction and Permanent Access Road (3.7 miles, 56 ac, 126ft ROW)
- Temporary Construction Access until Temporary At-Grade Crossing is Complete
- Bridge and At-Grade Crossing (24 ac)
- Proposed Bridge
- Temporary At-Grade Crossing

- Project Boundary
- N.A.P. (Not a Part)
- Original Boundary (8,230 ac)
- Current Project Boundary (6,215 acres)
- Pisgah Substation
- Existing Trestle
- Township/Range Boundary
- Section
- LWCF Acquisition
- BLM Acquired Land
- Well

BLM Route Designation

- Open Road
- Closed Road
- Unspecified Road

Desert Tortoise Burrow Category

- 1
- 2
- 3
- 4
- 5

Desert Tortoise Mitigation Ratios

- 1:1 Mitigation (2141 ac)
- 3:1 Mitigation (2103 ac)
- 5:1 Mitigation (369 ac)

Note: Fencing distances and some project features have been moved or exaggerated to show separation at this scale.

SOURCES: ESRI (overview); Mortenson (phase 1A features Aug 2010): URS (fencelines Aug 2010; well, waterline May 2010); USGS 7.5' quads (Hector 1992, Sleeping Beauty 1993); BLM (acquired lands, Land and Water Conservation Fund, and township/range 2009). BNSF Railroad (San Bernardino County, 2008); URS (dt survey 2010).

SCENARIO 5.5 FENCING TIMING FOR PHASE 1a WITH DESERT TORTOISE BURROWS CALICO SOLAR

URS

1500 0 1500 3000 Feet

SCALE: 1" = 3000' (1:36,000)
SCALE CORRECT WHEN PRINTED AT 11X17

CREATED BY: CL	DATE: 09-09-10	FIG. NO: 18
PM: AL	PROJ. NO: 27658189.70006	

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Westwood

Westwood Professional Services, Inc.
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TOLL FREE 1-888-937-5150

www.westwoodps.com

Designed:	ADC
Checked:	DDB
Drawn:	ADC
Record Drawing by/date:	

Revisions:

#	DATE	DESCRIPTION

Prepared for:

Mortenson construction
700 Meadow Lane
Minneapolis, MN 55440

LEGEND:

- SUNCATCHER ARRAY–PHASE 1
- SUNCATCHER ARRAY–PHASE 2
- PROPOSED PROJECT BOUNDARY – NAP
- PROPOSED MAIN SITE ACCESS ROAD
- PROPOSED ACCESS ROAD–PHASE 1
- PROPOSED ACCESS ROAD–PHASE 2

PROJECT MW
Phase 1 = 264.4 MW
Phase 2 = 399.1 MW

Total = 663.5 MW

0' 1500' 3000' 4500'

Calico Solar

San Bernardino County, California

Solar Layout - Scenario 5.5

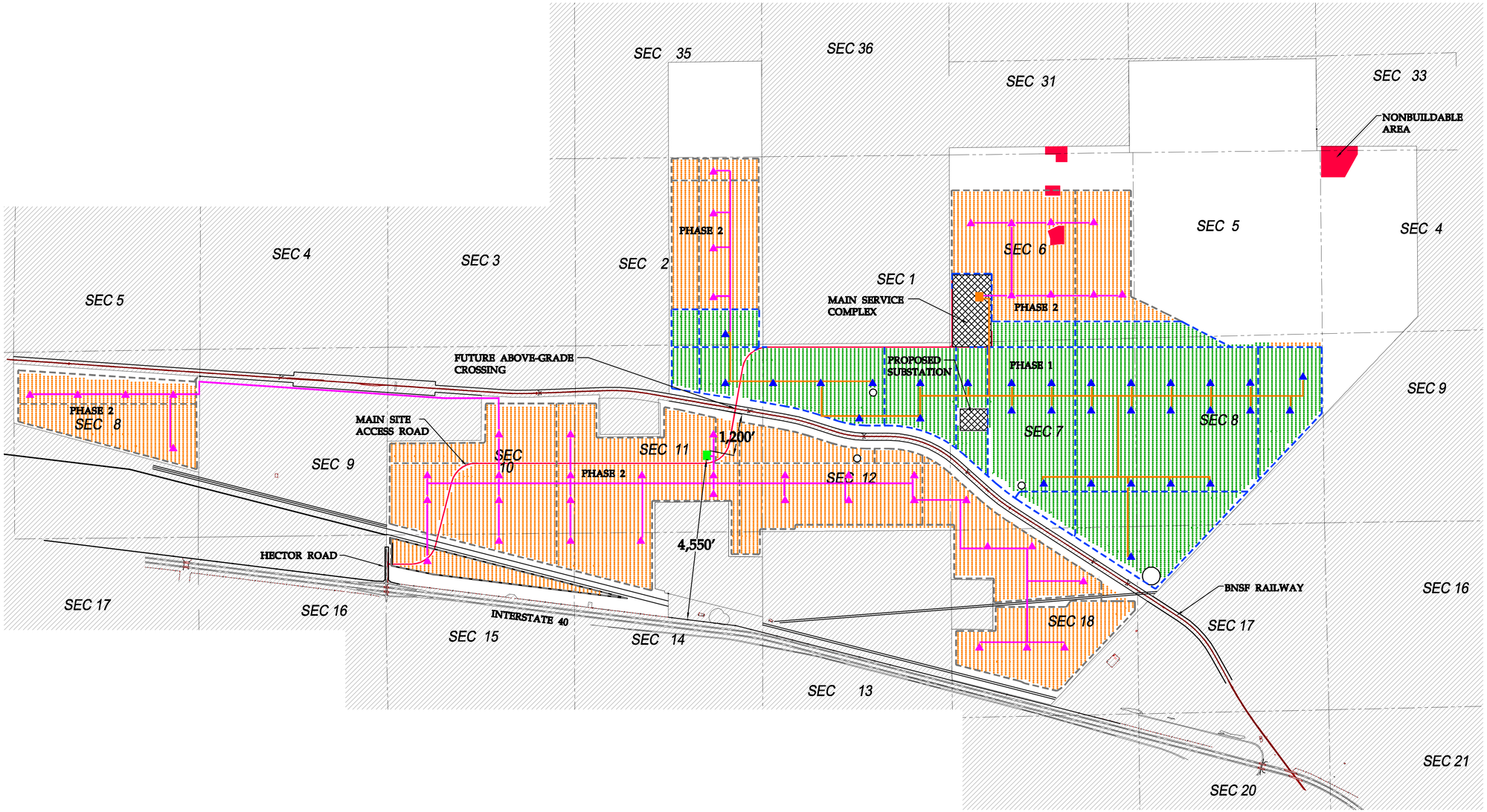
NOT FOR CONSTRUCTION

Date: 09/10/10
Sheet: 1 OF 1

20101055SCENARIO5.5.dwg

PROJECT MW
Phase 1 = 264.4 MW
Phase 2 = 399.1 MW

Total = 663.5 MW



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Designed:	ADC
Checked:	DDB
Drawn:	ADC
Record Drawing by/date:	

Revisions:

#	DATE	DESCRIPTION

Prepared for:

Mortenson construction
700 Meadow Lane
Minneapolis, MN 55440

LEGEND:

- SUNCATCHER ARRAY–PHASE 1
- SUNCATCHER ARRAY–PHASE 2
- PROPOSED PROJECT BOUNDARY – NAP
- PROPOSED MAIN SITE ACCESS ROAD
- PROPOSED ACCESS ROAD–PHASE 1
- PROPOSED ACCESS ROAD–PHASE 2
- PROPOSED PHASE 1 COMPRESSOR GROUP
- PROPOSED PHASE 2 COMPRESSOR GROUP
- PROPOSED PHASE 1 HYDROGEN MAKE–UP SUPPLY TUBING (1/2" DIA)
- PROPOSED PHASE 2 HYDROGEN MAKE–UP SUPPLY TUBING (1/2" DIA)
- PROPOSED PHASE 1 HYDROGEN GENERATION STATION
- PROPOSED PHASE 2 HYDROGEN GENERATION STATION

0' 1500' 3000' 4500'

Calico Solar

San Bernardino County, California

Solar Layout - Scenario 5.5

NOT FOR CONSTRUCTION

Date: 09/10/10
Sheet: 1 OF 1

20101055SCENARIO5.5.dwg

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

APPLICATION FOR CERTIFICATION

***For the CALICO SOLAR** (Formerly SES Solar One)*

Docket No. 08-AFC-13

PROOF OF SERVICE
(Revised 8/9/10)

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Jennifer Jennings
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*indicates change

DECLARATION OF SERVICE

I, Darin Neufeld, declare that on September 10, 2010, I served and filed copies of the attached Applicant's Submittal of Updated Reduced Project Boundary Scenarios 5.5 and 6 Information. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [www.energy.ca.gov/sitingcases/solarone].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

__X__ sent electronically to all email addresses on the Proof of Service list;

____ by personal delivery;

__X__ by delivering on this date, for mailing with the United States 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 "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

__X__ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (***preferred method***);

OR

____ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-13
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury 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.

Original Signed By
Darin Neufeld

*indicates change

Exhibit D

Tessera Solar
power from stirling energy systems

DOCKET
08-AFC-13
DATE SEP 13 2010
RECD. SEP 13 2010

September 13, 2010

Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Calico Solar (formerly Solar One) Project (08-AFC-13)
Applicant's Submittal of Testimony with Applicant's Exhibits for Scenarios 5.5 and 6

Dear Mr. Meyer:

Tessera Solar hereby submits Testimony with Applicant's Exhibits related to two new project scenarios developed by Calico Solar pursuant to the Committee's September 3, 2010 Order: a) Scenario 5.5, docketed on September 10, 2010; and b) Scenario 6, docketed on September 8 and 10, 2010. I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia L. Bellows
Vice President of Development

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EXHIBIT 114

Declaration of Felicia Bellows

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Exhibit 114
TESTIMONY
OF
FELICIA BELLOWS
Project Overview

Q.1 Will you please state your name and occupation?

A.1 My name is Felicia Bellows and I am Vice President of Development for Tessera Solar.

Q.2 Are you the same Felicia Bellows that submitted opening and rebuttal testimony in this proceeding?

A.2 Yes.

Q.3 Are you sponsoring any additional exhibits?

A.3 Yes. Attached are a list of recently docketed items (Attachment A), fencing maps of the proposed scenarios (Attachment B), changes in conditions of certification (Attachments C, D and E) and declarations of the technical experts who evaluated the implications of the scenarios proposed (Exhibits 115-128).

Q.4 What is the purpose of your testimony?

A.4 The purpose of my testimony is to:

a) Describe the site development scenarios prepared by Tessera Solar in response to the Committee's September 3, 2010 Order.

b) Provide an overview of the implications and policy trade-offs associated with the Commission's consideration of these scenarios.

c) Discuss changes in the conditions of certification resulting from these scenarios.

Q.5 Did you direct the preparation of and have you reviewed the text and maps describing two new project scenarios developed by Calico Solar pursuant to the Committee's September 3, 2010 Order: a) Scenario 5.5, docketed on September 10, 2010; and b) Scenario 6, docketed on September 8 and 10, 2010?

A.5 Yes, I have.

Q.6 Why are you proposing these additional project scenarios?

A.6 The Committee's September 3, 2010 order stated:

> "The Committee can not recommend approval of the Calico Solar Project as proposed by the Applicant due to the scope and scale of high quality habitat affecting desert tortoises and bighorn sheep that would be lost in order to construct and operate the project. That highest quality habitat exists in the portions of the proposed project site north of the Phase 1 boundary including the Phase 1 detention basins. The Committee is willing, if one or more parties are interested in pursuing the matter, to consider further evidence on project proposals with reduced footprints that exclude the highest quality tortoise habitat."

Based on this direction, we prepared six scenarios that progressively reduced the footprint of the project and the amount of higher quality desert tortoise habitat included within the

project's boundaries. These scenarios also progressively moved the project boundary farther away from the bighorn sheep habitat in the Cady Mountains.

During the workshop held on September 9, 2010, the Committee was clear that it is very concerned about the need to balance the need for renewable energy and its associated benefits with the environmental concerns associated with the siting of individual power plant proposals. In this case, a particular concern was expressed about potential impacts to desert tortoise. To make a decision in this case balancing these different considerations and the whole of the record, they expressed their desire to consider no more than two scenarios in subsequent hearings that would reduce biological impacts and produce renewable power. These included what we referred to as Scenario 6, designed to exclude all of the higher quality desert tortoise habitat and maximize the distance of the project from the toe of the Cady Mountains, and what we are now calling Scenario 5.5 which included a minimal amount of the higher quality desert tortoise habitat.

Q.7 Will you describe the scenarios you are proposing to the Committee?

A.7 As I said earlier, we initially proposed 6 scenarios that were docketed on September 8, 2010, and that were subsequently discussed with all of the parties at a workshop held on September 9, 2010. We are bringing forward one of those scenarios and a variant of another at this time for the Committee's consideration.

What we are calling Scenario 5.5 reduces the project footprint to 4,613 acres. I'd like to note that this is entirely a reduction in acres from the footprint the Commission has been evaluating. It does not include any lands located outside the previous project boundary. In terms of project phasing, Phase 1a would include 250 acres for the access road, main services complex, substation, and initial 60 SunCatchers as described before. Phase 1b would now be constructed on an additional 1,626 acres and Phase 2 on an additional 2,737 acres. Consistent with the concerns expressed by the Committee, the area previously occupied by the detention basins as well as the great majority of the higher quality desert tortoise habitat (the habitat proposed by the CDFG for mitigation at a 5:1 ratio) would be eliminated from the project site under scenario 5.5. Only 369 acres of 5:1 mitigation ratio land would remain within the project boundary. The total generating capacity of the project under this configuration will be 663.5 megawatts. This scenario is significantly less than the 850 MW identified in our power purchase agreement (PPA) but will allow delivery of first power in a manner consistent with the PPA, and can accommodate phasing to meet SCE's schedule for regional transmission upgrades. With the exception of removing the detention basins, this scenario will not require the relocation of other project components previously evaluated in this proceeding.

What we call Scenario 6 is similar to Scenario 5.5 but has a smaller footprint and avoids all of the higher quality desert tortoise habitat (the habitat proposed by the CDFG for mitigation at a 5:1 ratio). It occupies 4,244 acres. Phase 1a and 1b remain at 250 acres and 1,626 acres respectively. Phase 2 is reduced to 2,368 acres. The total generating capacity of this project is 603.9 MW. Again, this scenario only reduces the land area included within the project boundary. It does not result in development outside the boundary previously evaluated by the Commission in this proceeding and, except for removal of the detention basins, does not relocate any of the major project components.

Q.8 How do either of these scenarios affect the environmental implications of the project?

A.8 Both scenarios reduce the project footprint and also reduce the project's environmental consequences.

Scenario 5.5 excludes a majority of the higher quality desert tortoise habitat and Scenario 6 excludes all of this habitat, consistent with the Committee's order. In addition, compared to the 850 MW project, both scenarios would:

- Significantly reduce the number of desert tortoise needing to be moved or translocated and the number of desert tortoise affected by the project,
- Create a larger desert tortoise movement corridor between the project boundary and the toe of the Cady Mountains,
- Pull the project further away from the bighorn sheep habitat located in the Cady Mountains to the northeast of the 6,215 acre project layout,
- Reduce impacts to desert habitat,
- Reduce impacts to waters of the state (46% reduction in Scenario 5.5 and 55% reduction in Scenario 6),
- Reduce the amount of hydrogen used on the site,
- Reduce particulate matter generated by site disturbance activities during construction and by vehicular traffic during both construction and operation,
- Result in the installation of fewer transformers, fewer collector distribution feeders and other electrical components that would also reduce their associated environmental impacts, and
- Reduce the already minimal water use on site.

Details on how these scenarios affect specific environmental topics are discussed in the testimony and declarations submitted with my testimony.

Q.9 Will these scenarios necessitate modifications to the proposed conditions of certification?

A.9 The reduction in acreage for Scenarios 5.5 and 6 each result in reduced mitigation compensation for many of the biological resources as well as for fire protection where the compensation amount was calculated on a per acre basis. Specifically, the compensation included in Conditions of Certification BIO-17 (desert tortoise), BIO-18 (raven management), BIO-26 (waters of the state), WORKER SAFETY-7 and WORKER SAFETY-8 would all be reduced in proportion to the reduction in acreage. Additionally, the phased acreage amounts in BIO-13 (MFTL) would be reduced; however, the contemplated compensation would not change because the area of the Mojave fringe-toed lizard habitat is not changed by either Scenario. Revised versions of these conditions for Scenario 5.5 are included in Attachment C and revised versions of these conditions for Scenario 6 are included in Attachment D.

Q.10 How will these scenarios impact the drainage and sediment transfer on the site?

A.10 These scenarios eliminate the detention basins designed as part of the project to reduce on-site maintenance costs. The attached declarations by Dr. Chang, Mr. Moore, and Mr. Byall explain the implications of removing the basins.

The removal of the detention basins requires revision of Condition of Certification SOIL&WATER-8, the majority of which was concerned with the design of the detention basins, and ensuring that the detention basins did not deprive down-stream habitat of necessary sediment loads. Therefore, we propose revising SOIL&WATER-8 (a) to eliminate

references to the detention basins, (b) to include performance standards for drainage of the site to protect the washes, the BNSF railroad and the sediment transportation through the site, and (c) to require a hydrology report to demonstrate that these performance standards will be met. Additionally, due to the fact that the detention basins are being removed, Conditions of Certification GEO-2 and GEO-3, which dealt exclusively with detention basins and dams, should be deleted in their entirety. The proposed wording for revised SOIL&WATER-8 is included in Attachment E.

Q.11 Will these scenarios allow private property owners to have access to their property?

A.11 Yes. As always, we are committed to ensuring that private property owners have access. There will still be a perimeter road around the project site. Because the reduction in the project footprint will move the property boundary further south, the access road around the project site to private lands in Section 1 would be shorter than under the 6,215 acre project layout.

Q.12 Are there any adverse environmental implications of the Commission approving either of these scenarios?

A.12 The most significant tradeoff in approving one of these scenarios is the impact to achieving California's Renewable Portfolio Standard and greenhouse gas reduction goals. Both of these scenarios significantly reduce the generating capacity of this project (by 186.5 MW in Scenario 5.5 and 246.1 MW in Scenario 6) and the resultant system and climate change benefits. Since California is behind in meeting either of these mandates, another solar power plant or facility that provides similar benefits will need to be constructed somewhere. I can only assume that any new power generation facility will have some, although perhaps different, environmental consequences. I also expect that the time delay required to design, permit, and construct that facility will also have a climate change consequence. Those, however, are considerations this Commission is required to balance in its decision-making process.

Q.13 Does that complete your testimony?

A.13 Yes.

I swear under penalty of perjury that the above that this testimony is true and correct to the best of my knowledge.

9/13/10

Date

Felicia Bellows

A/73500402.2

Exhibit E

CONTINUATION OF COMMITTEE CONFERENCE

BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	
Application for Certification for the Calico Solar Project (formerly SES Solar 1)	)	Docket No. 08-AFC-13
	)	
	)	
_____	)	

CALIFORNIA ENERGY COMMISSION

HEARING ROOM B, FIRST FLOOR

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

TUESDAY, OCTOBER 26, 2010

10:06 A.M.

Reported by:
Peter Petty

Transcribed by:
Diana Sasseen

APPEARANCES

HEARING OFFICER

Paul Kramer

COMMITTEE MEMBERS

Anthony Eggert, Presiding Member

Jeffrey Byron, Associate Member

STAFF

Caryn Holmes, Staff Counsel

Christopher Meyer, CEC Project Manager

Jennifer Jennings, Public Advisor

APPLICANT

Ella Foley Gannon, Esq., Bingham, McCutchen, LLP

Allan Thompson, Esq., Bingham, McCutchen, LLP

Felicia Bellows, Tessera Solar

INTERVENORS

Bart Brizzee, Deputy County Counsel, San Bernardino County (via Webex)

Loulena Miles, Esq., Adams Broadwell Joseph & Cardozo

Laura Cunningham, Basin and Range Watch (via WebEx)

Steven Lamb, Burlington Northern Santa Fe (BNSF)

Cynthia Burch, Burlington Northern Santa Fe (BNSF)

Travis Ritchie, Sierra Club (via WebEx)

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EXHIBITS

(None)

P R O C E E D I N G S

PRESIDING MEMBER EGGERT: On the record.

All right. Good morning, everybody. This is Anthony Eggert. I am the presiding commissioner for the Calico Solar Project.

To my immediate left is our hearing officer, Paul Kramer, and to his left is my partner on this case, Commissioner Jeff Byron. And this is a continuation of the Calico PMPD conference to specifically address soil and water and one other. Civil 1, yes.

So I think we'll go ahead and take introductions.

Applicant?

MS. FOLEY GANNON: Good morning. Ella Foley Gannon, counsel to the applicant. And to my left is Felicia Bellows with the applicant.

PRESIDING MEMBER EGGERT: Okay. Staff?

MS. HOLMES: Caryn Holmes, staff counsel. And with me is Christopher Meyer, the project manager. We also did have -- still have a soil and water expert, Casey Weaver in the audience. Thank you.

PRESIDING MEMBER EGGERT: Thank you.

CURE?

MS. MILES: Loulena Miles here on behalf of CURE.

And prior to launching into the soil and water resources issues, could I just make a -- reserve a moment

earlier were that the project was going to come online as construction was completed. And so as the first -- and I believe it's stated in documentation, that as the first 60 units were completed, then it would come online.

And so I don't believe there's any -- can you point to somewhere in the record that would restrict the project from having SunCatcher dishes?

MS. FOLEY GANNON: Well, the SunCatchers cannot come online until the main service complex is constructed, and that does not happen until Phase 1B.

MS. MILES: Okay. That answers my question, I believe.

HEARING OFFICER KRAMER: But might they be placed there, just to be ready?

MS. FOLEY GANNON: They could be, but we can --

MS. BELLOWS: From a financial -- from a financial, capital perspective, it makes no sense to put them up until the transmission is ready. So the earliest transmission's going to be ready is 7/31/2011, so you're not going to see SunCatchers until, you know, 7/29.

MS. FOLEY GANNON: And we wouldn't object to having a restriction that says Phase 1A will not include the placement of any SunCatchers on poles installed, I mean, we don't have any problem with that.

MS. MILES: And another issue that I wanted to

Exhibit F

Tessera Solar
power from stirling energy systems

October 25, 2010

DOCKET
08-AFC-13
DATE OCT 25 2010
RECD. OCT 25 2010

Mr. Christopher Meyer
CEC Project Manager
Attn: Docket No. 08-AFC-13
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

RE: Calico Solar (formerly Solar One) Project (08-AFC-13)
Applicant's Submittal of Additional Comments on the Presiding Member's Proposed Decision

Dear Mr. Meyer:

Tessera Solar hereby submits Additional Comments on the Presiding Member's Proposed Decision. I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.

Sincerely,

Felicia L. Bellows
Vice President of Development

Tessera Solar | 4800 N. Scottsdale Road | Suite 5500 | Scottsdale, AZ 85251 | P +1 602 535 3576 | F +1 602 535 3617 | tesserasolar.com

STATE OF CALIFORNIA
Energy Resources Conservation
and Development Commission

Calico Solar (formerly known as SES Solar One) Project Calico Solar, LLC	)	**Docket No. 08-AFC-13**
	)	**APPLICANT'S SUPPLEMENTAL COMMENTS ON THE PRESIDING MEMBER'S PROPOSED DECISION**

In addition to the comments submitted on October 18, 2010, Calico Solar, LLC, the Applicant for the Calico Solar Project, submits these supplemental comments on the Presiding Member's Proposed Decision (PMPD) to approve the Project.

Calico Solar again thanks the Committee and the Commission's Staff for the time, energy and attention which they have dedicated to their consideration of the Project. The Project is a key piece in helping California provide clean, renewable energy to residences and businesses throughout the state. Through the Energy Commission's process, the Project has been revised to reduce impacts to the environment, while still being able to provide clean power.

These supplemental comments on the PMPD address, in part, the discussions at the October 22, 2010 hearing and some of the issues raised in CURE Initial Comments on the PMPD dated October 19, 2010, Staff's Initial Comments on the PMPD dated October 20, as well as Additional Staff Comments on the Fire Protection Analysis in the PMPD dated October 22, 2010, Sierra Club Comments on the PMPD dated October 20, 2010, and Defenders of Wildlife Comments on the PMPD dated October 21, 2010.

Calico Solar's supplemental comments on the PMPD are provided below.

I. Introduction

The Commission's regulations require that "The presiding member's proposed decision shall contain the committee's responses to significant environmental points raised during the application proceeding." 20 CCR § 1752.5. The PMPD does so. CURE's statement that CEQA sections 20191(a) and 21092 required the CEC to provide a 30-day public comment period on Supplemental Staff Assessment (SSA) Parts I and II (as well as for any errata or addenda to the SSA documents) is incorrect. See CURE Comments at 1.

CEQA sections 21091(a) and 21092 refer to public review periods and notice requirements for Draft EIRs. Under its Certified Regulatory Program, the CEC does not issue EIRs; as the notices in this proceeding explained, the CEC "produces several

Calico Solar agreed to pay for a hydrology study and to implement the clear performance standards in SOIL&WATER-8. The record contains substantial evidence that if appropriate performance standards are met, that would be sufficient to address impacts related to a hundred-year storm event. Transcript, Hamilton testimony September 20, 2010 at 328-29. There is substantial evidence in the record that studies can be designed to determine how to meet performance standards to meet mitigation criteria. Transcript, Chang testimony September 20, 2010 at 128. There is also substantial evidence in the record that SOIL&WATER-8 is adequate. Transcript, Byall testimony September 20, 2010 at 134. Substantial evidence clearly indicates that mitigation is feasible, and the utilization of a study to address sedimentation impacts is permissible under CEQA. *See Laurel Heights Improvement Ass'n v Regents of Univ. of Cal.,* 47 Cal. 3d 376, 418 (1988) (upholding mitigation measure for noise impacts that required evaluation of specific noise control techniques to ensure compliance with noise performance standards once ventilation system had been designed); *National Parks & Conserv. Ass'n v County of Riverside*, 71 Cal. App. 4th 1341, 1366 (1999) (county appropriately deferred determination about placement of tortoise protection fences along railroad line to further study of migration patterns during operation of project).

If detention basins are required, CURE raises the question of whether inclusion of detention basins into the Project design would reduce available land, the number of SunCatchers, and the power output. CURE Comments at 7. While inclusion of detention basins or some other form of flood control devices may reduce the amount of developable land on the Project site, it would not cause a "significant decrease" in the number of SunCatcher units or the power output. The detention basin area proposed for the 6,215 acre site was 545 acres.[8] Ex. 82 (Bellows testimony), Attachment C map of Biological Resources Avoided Calico Solar. Even if it is determined that the reduced Project contemplated in Scenario 5.5 would require the same size detention basins as the 6,215 acre project, the remaining developable land (4,068 acres = 4,613- 545) would only result in the estimated power output to decrease from 663.5 MW to 581.1 MW (assuming the loss of 7 MW per acre). The Project still would generate a massive amount of clean, renewable energy, vastly increasing the supply of renewable energy available to California consumers. If the Project generates between 580 and 665 MW, its substantial societal benefits would not be undermined. Therefore, the Commission would still be able to conclude that the Project benefits outweigh the significant impacts based upon the finding that the Project will contribute a substantial amount of renewable energy power toward meeting California's Renewables Portfolio Standard and California's adopted renewable energy and GHG policy goals.

---

[8] This map shows that the detention basin area would have been 545 acres. The detention basins, which the map indicates are included within the 545 acres, would have been 72 acres. Calico Solar subsequently calculated the area of the detention basins to be 486 acres, as shown in the proposed Scenario 1, which was docketed on September 8, 2010, as part of Applicant's Submittal of Reduced Project Boundary Scenarios. Calico Solar uses the 545 acres in this discussion to capture the maximum reduction in mega-wattage as a result of the possible reduction in acreage available for development.

Exhibit G

CALICO SOLAR POWER PROJECT

Commission Decision

CALIFORNIA
ENERGY COMMISSION
Arnold Schwarzenegger, Governor

OCTOBER 2010
CEC-800-2010-012-CMF

DOCKET NUMBER 08-AFC-13

CALIFORNIA
ENERGY COMMISSION
1516 Ninth Street
Sacramento, CA 95814

http://www.energy.ca.gov/sitingcases/calicosolar/index.html

COMMISSIONERS-

KAREN DOUGLAS, J.D
Chair

JAMES D. BOYD
Vice Chair

JEFFREY D. BYRON
Commissioner

ANTHONY EGGERT
Commissioner

ROBERT B.WEISENMILLER, Ph.D
Commissioner

PAUL KRAMER
Hearing Officer

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

APPLICATION FOR CERTIFICATION FOR THE
CALICO SOLAR PROJECT
(Formerly SES SOLAR 1)

DOCKET NO. 08-AFC-13

ORDER NO. 10-1028-03

COMMISSION ADOPTION ORDER

This Commission Order adopts the Commission Decision on the ***Calico Solar Project***. It incorporates the Presiding Member's Proposed Decision (PMPD) in the above-captioned matter and the Committee Errata. The Commission Decision is based upon the evidentiary record of these proceedings and considers the comments received at the October 28, 2010 business meeting. The text of the attached Commission Decision contains a summary of the proceedings, the evidence presented, and the rationale for the findings reached and Conditions imposed.

This **ORDER** adopts by reference the text, Conditions of Certification, Compliance Verifications, and Appendices contained in the Commission Decision. It also adopts specific requirements contained in the Commission Decision which ensure that the proposed facility will be designed, sited, and operated in a manner to protect environmental quality, to assure public health and safety, and to operate in a safe and reliable manner.

FINDINGS

The Commission hereby adopts the following findings in addition to those contained in the accompanying text:

1. The ***Calico Solar Project*** will provide a degree of economic benefits and electricity reliability to the local area.

2. The Conditions of Certification contained in the accompanying text, if implemented by the project owner, ensure that the project will be designed, sited, and operated in conformity with applicable local, regional, state, and federal laws, ordinances, regulations, and standards, including applicable public health and safety standards, and air and water quality standards.

3. Implementation of the Conditions of Certification contained in the accompanying text will ensure protection of environmental quality and assure reasonably safe and reliable operation of the facility. The Conditions of Certification also assure that the project's direct, indirect, and cumulative adverse environmental impacts will be mitigated to the extent feasible. Where full mitigation is not feasible, overriding considerations warrant acceptance of those impacts.

4. As is discussed in Section VIII (Override Findings) of the PMPD, the benefits of the ***Calico Solar Project*** outweigh any significant direct, indirect, or cumulative impacts which may result from its construction or operation

5. Existing governmental land use restrictions are sufficient to adequately control population density in the area surrounding the facility and may be reasonably expected to ensure public health and safety.

6. The project is subject to Fish and Game Code section 711.4 and the project owner must therefore pay a nine hundred forty-nine dollars and fifty cents ($949.50) fee to the California Department of Fish and Game.

7. No feasible mitigation measures or site or generation technology alternatives to the project, as described during these proceedings, exist which would reduce or eliminate any significant environmental impacts of the mitigated project.

8. An environmental justice screening analysis was conducted and that the project, as mitigated, will not have a disproportionate impact on low-income or minority populations.

9. The Decision contains a discussion of the public benefits of the project as required by Public Resources Code section 25523(h).

10. The Decision contains measures to ensure that the planned, temporary, or unexpected closure of the project will occur in conformance with applicable laws, ordinances, regulations, and standards.

11. The proceedings leading to this Decision have been conducted in conformity with the applicable provisions of Commission regulations governing the consideration of an Application for Certification and thereby meet the requirements of Public Resources Code sections 21000 et seq. and 25500 et seq.

ORDER

Therefore, the Commission **ORDERS** the following:

1. The Application for Certification of the ***Calico Solar Project*** as described in this Decision is hereby approved and a certificate to construct and operate the project is hereby granted.

2. The approval of the Application for Certification is subject to the timely performance of the Conditions of Certification and Compliance Verifications enumerated in the accompanying text and Appendices. The Conditions and Compliance Verifications are integrated with this Decision and are not severable therefrom. While the project owner may delegate the performance of a Condition or Verification, the duty to ensure adequate performance of a Condition or Verification may not be delegated.

3. This Decision is adopted, issued, effective, and final on October 28, 2010.

4. Reconsideration of this Decision is governed by Public Resources Code, section 25530.

5. Judicial review of this Decision is governed by Public Resources Code, section 25531.

6. The Commission hereby adopts the Conditions of Certification, Compliance Verifications, and associated dispute resolution procedures as part of this Decision in order to implement the compliance monitoring program required by Public Resources Code section 25532. All conditions in this Decision take effect immediately upon adoption and apply to all construction and site preparation activities including, but not limited to, ground disturbance, site preparation, and permanent structure construction.

7. This Decision licenses the project owner to commence construction on the project within five years of this Decision date. Subject to the provisions of California Code of Regulations, title 20, section 1720.3, this license expires by operation of law when the project's start-of-construction deadline passes with no construction.

8. The project owner shall provide the Executive Director a check in the amount of nine hundred forty-nine dollars and fifty cents ($949.50) payable to the California Department of Fish and Game.

9. The Executive Director of the Commission shall transmit a copy of this Decision and appropriate accompanying documents, including the Department of Fish and Game fee, as provided by Public Resources Code section 25537, California Code of Regulations, title 20, section 1768, and Fish and Game Code, section 711.4.

10. We order that the Application for Certification docket file for this proceeding be closed effective the date of this Decision, with the exception that the docket file shall remain open for 30 additional days solely to receive material related to a petition for reconsideration of the Decision.

Dated: October 28, 2010, at Sacramento, California.

KAREN DOUGLAS
Chair

JAMES D. BOYD
Vice Chair

JEFFREY D. BYRON
Commissioner

ANTHONY EGGERT
Commissioner

ROBERT B. WEISENMILLER
Commissioner

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INTRODUCTION

A. SUMMARY OF THE DECISION

This Decision contains the Commission's rationale for determining to approve a license for the proposed Calico Solar Project (CSP) in the modified "Scenario 5.5" format proposed by the Applicant in September, 2010. While many of the potentially significant environmental impacts of the CSP will be mitigated to insignificant levels by design changes and measures required in the Conditions of Certification, significant, unmitigated impacts remain. The nature of those impacts are described in the relevant topic sections and summarized, along with the Commission's rationale for determining that the benefits of the project outweigh or override those impacts, in the Override Findings section near the end of this Decision. In the remainder of this Decision we also find that the CSP will comply with all applicable laws, ordinances, regulations, and standards (LORS). Our Decision is based exclusively upon the record established during this certification proceeding and summarized in this document. We have independently evaluated the evidence, provided references to the record[1] supporting our findings and conclusions, and specified the measures required to ensure that the Calico Solar Project is designed, constructed, and operated in the manner necessary to protect public health and safety, promote the general welfare, and preserve environmental quality.

On December 1, 2008, Stirling Energy Systems (SES) Solar Three, LLC and Stirling Energy Systems Solar Six, LLC (Applicant), submitted an Application for Certification (AFC) to the Energy Commission to construct a concentrated solar thermal power plant facility approximately 37 miles east of Barstow, in San Bernardino County. At the May 6, 2009, Business Meeting, the Energy Commission deemed the project adequate beginning staff's analysis of the proposed project. The Energy Commission has exclusive jurisdiction to license this project and is considering the proposal under a review process established by Public Resources Code section 25540.6.

The proposed project will be constructed on an approximate 4,613-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

[1] The Reporter's Transcript of the evidentiary hearings is cited as "date of hearing RT page __." For example: 9/20/10 RT 77. The exhibits included in the evidentiary record are cited as "Ex. number." A list of all exhibits is contained in **Appendix B** of this Decision.

of Victorville, and approximately 115 miles east of Los Angeles (straight line distances). The Applicant has applied for a Right of Way (ROW) grant from the United States Bureau of Land Management (BLM) to construct and operate the CSP on BLM-managed public lands. CSP will use approximately 32 acre feet of water per year, produce a nominal 663.5 MW of electricity, and operate for a term of 40 years. The project is proposed for development in two phases. Phase I is located on approximately 1,876 acres. Phase II is located on approximately 2,737 additional acres. About 26,540 SunCatchers, configured in 442.5 MW groups of 60 SunCatchers will be constructed on the project site.

Project construction is planned to begin in late 2010. Although construction would take approximately 44 months to complete, power would be available to the grid as each 60-unit group of SunCatchers is completed. It is expected that the Project would be operated with a staff of approximately 182 full-time employees. The project would operate 7 days per week, generating electricity during normal daylight hours when the solar energy is available. Construction activities will employ an average of 400 workers a month, peaking at 700 workers per month, for an approximately four-year construction period.

B. SITE CERTIFICATION PROCESS

The Calico Solar Project and its related facilities are subject to Energy Commission licensing jurisdiction. (Pub. Res. Code, § 25500 et seq.). During licensing proceedings, the Commission acts as lead state agency under the California Environmental Quality Act (CEQA). (Pub. Res. Code, §§ 25519(c), 21000 et seq.) The Commission's regulatory process, including the evidentiary record and associated analyses, is functionally equivalent to the preparation of an Environmental Impact Report. (Pub. Res. Code, § 21080.5.) The process is designed to complete the review within a specified time period when the required information is submitted in a timely manner; a license issued by the Commission is in lieu of other state and local permits.

The Commission's certification process provides a thorough review and analysis of all aspects of a proposed power plant project. During this process, the Energy Commission conducts a comprehensive examination of a project's potential economic, public health and safety, reliability, engineering, and environmental ramifications.

Specifically, the Commission's process allows for and encourages public participation so that members of the public may become involved either informally or on a formal level as intervenor parties who have the opportunity to

3. Impact Evaluation Criteria

To evaluate if significant environmental impacts to soil or water resources would occur, we apply the following criteria. Where a potentially significant impact is identified, we apply mitigation to reduce the potential impacts to less than significant levels.

- Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on or offsite?
- Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?
- Would the project place structures within a 100-year flood hazard area which would impede or redirect flood flows?
- Would the project violate any water quality standards or waste discharge requirements?
- Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
- Would the project contribute to any lowering of groundwater levels in the groundwater wells of other public or private water users?
- Would the project contribute to any lowering of the groundwater levels such that protected species or habitats are affected?
- Would the project cause substantial degradation to surface water or groundwater quality?

4. Construction Impacts and Mitigation

As proposed in reduced acreage Scenario 5.5, the project will be developed in two phases. Construction of Phase 1 is expected to take 26 months to complete and Phase 2 is expected to take 28 months. Construction will, therefore, occur over three or four winter seasons. Construction of the proposed project would

2. The project would be constructed in two phases, with the first phase divided into subphases. Phase 1a would consist of 60 SunCatchers configured in a single group and much of the support facilities. Phase 1b and then Phase 2 would contain the remaining 26,390 SunCatchers arranged in 1.5-MW solar groups of 60 SunCatchers per group, bringing the CSP to its net nominal generating capacity of 663.5 MW.

3. The primary equipment for the generating facility would include approximately 26,540 SunCatchers, their associated equipment and systems, and their support infrastructure.

4. The proposed Calico Solar Project also includes a new 230-kilovolt (kV) Calico Solar Substation, 2.0 miles of electrical transmission line, an administration building, maintenance complex, onsite routes interior to the project boundaries, a site access road and bridge over the Burlington Northern Santa Fe railroad tracks. Approximately 739 feet of the 2-miles of single-circuit, 230-kV generation interconnection transmission line would be constructed off the project site but still on BLM managed land. The transmission line would connect the proposed Calico Solar Substation to the existing Southern California Edison (SCE) Pisgah Substation.

5. The Lavic Groundwater Basin will be used as the primary water source for the project.

6. The proposed project would include the construction of a new 230-kV Calico Solar Substation approximately in the center of the project site. This new substation would be connected to the existing SCE Pisgah Substation via an approximately 2-mile, single-circuit, 230-kV transmission line. Other than this interconnection transmission line, no new transmission lines or off-site substations would be required for the 275-MW Phase I construction.

CONCLUSION OF LAW

1. We therefore conclude that the Calico Solar Project is described at a level of detail sufficient to allow review in compliance with the provisions of the Warren-Alquist Act, the California Environmental Quality Act, and the National Environmental Policy Act.

Exhibit H

Calico Solar

March 18, 2010

DOCKET
08-AFC-13C
DATE 3-18-2011
RECD. 3-22-2011

Craig Hoffman
Compliance Project Manager
California Energy Commission
1516 Ninth Street, MS-2000
Sacramento, CA 95814

Subject: Calico Solar Project—Petition to Amend

Dear Mr. Hoffman:

Enclosed are 15 hard copies and 10 electronic copies of the petition to amend (Amendment) relating to the Calico Solar Project (Project).

This Amendment does not propose to change the size, boundary, or generating capacity of the approved Project. It rather proposes a partial modification in the solar collector technology used on the Project site. The Project will generate 100.5 MW of power using the SunCatcher technology and 563 MW using single-axis tracker photovoltaic (PV) technology. Both the SunCatchers and the PV collectors will be fully integrated components of the power plant, operate from the single control room, utilize the same transmission interconnection system, access the common water system and road network, and depend on the same construction and operation personnel.

The Amendment also proposes to alter the phasing of the Project to reduce access issues associated with the northern portion of the Project site. Phase 1 will now be located primarily south of the railroad 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 waterline and a portion of the PV solar collectors. Phase 2 will be located entirely north of the railroad and will include the remainder of the PV solar collectors and the SunCatchers. The SunCatchers will be located toward the center of Phase 2 to reduce noise impacts on wildlife and the glint and glare concerns.

We look forward to working with the Commission and the other agencies in processing this amendment. Please let me know if you have any questions or need additional information.

Sincerely,

Daniel J. O'Shea
On behalf of Calico Solar, LLC

CALICO SOLAR

Petition to Amend

03.18.11

CALICO SOLAR PROJECT

08-AFC-13

Submitted by:
Calico Solar, LLC
Calico Solar

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SECTION 3 NECESSITY OF THE MODIFIED PROJECT

Sections 1769(a)(1)(B), (C), and (D) of the Commission's Power Plant Siting Regulations require that an amendment provide information on: 1) the necessity for the proposed modifications, 2) whether the modification was based on information known during the licensing proceedings, and 3) if the modification is based on new information that changes or undermines the bases of the Commission Decision, why the change should be permitted. This section provides information on these three related topics.

3.1 NECESSITY

On December 24, 2010, K Road Sun LLC (K Road) purchased Calico Solar, LLC from Tessera Solar North America. Because the SunCatchers would not be commercially available in the near term, K Road determined that for the project to be viable, a portion of the technology would need to be replaced with a technology that was currently commercially available and able to attract financing. K Road also determined that the Approved Project phases needed to be modified in order to allow additional time to obtain access over the railroad.

3.2 RELATION TO THE CERTIFICATION PROCEEDING

The Commission's Power Plant Siting Regulations require a Petition for Amendment to address whether the "…modification is based on information that was known by the petitioner during the certification proceeding and an explanation of why the issue was not raised at that time." (Section 1769(a)(1)(C)). During the licensing proceedings, it was not known whether Calico Solar would be sold or what changes a new owner may pursue for the Approved Project. K Road did not purchase the Approved Project until December 24, 2010, following the Project's licensing proceedings.

3.3 REASONS FOR PERMITTING THE MODIFIED PROJECT

The Commission's Power Plant Siting Regulations also require a Petition for Amendment to discuss: "If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the Commission Decision, an explanation of why the change should be permitted." (Section 1769(a)(1)(D)).

The proposed modifications are based on new information, but this information does not adversely change or undermine any of the assumptions, rationale, findings, or basis for the Commission Decision. The findings contained in the Commission Decision (noted in italics) and their relationship to the Amendment are discussed below.

1. *The Calico Solar Project will provide a degree of economic benefit and electricity reliability to the local area*. The Modified Project would not change or undermine this finding. The Modified Project would ensure that these benefits are provided to San Bernardino County and the surrounding area when they are most needed. San Bernardino County remains an area hit hard by the economic recession. While the Commission Decision envisioned construction commencing at the end of 2010, this Amendment would allow construction to begin in late 2011. *The Conditions*

Exhibit I

SAN FRANCISCO, CALIFORNIA, MAY 17, 2011 - 10:00 A.M.

* * * * *

ADMINISTRATIVE LAW JUDGE HECHT: We'll be on the record.

The Commission will please come to order. It is 10:00 a.m. on Tuesday, May 17th, 2011, and this is the time and place set for the first day of evidentiary hearings in Commission Case 10-10-015, which is a complaint brought by Calico Solar, LLC, Complainant, against BNSF Railway Company, Defendant.

As you probably recall from the prehearing conferences held in this proceeding, I am Jessica Hecht, the Administrative Law Judge assigned to this proceeding and the Presiding Officer for this proceeding. Commissioner Ferron is the assigned Commissioner. That is a change since the last time we met.

Last week I sent a request to the Service List via e-mail asking for parties to agree on a proposed hearing schedule and provide me with that along with estimates of cross-examination times for each witness. That e-mail also provided parties with some logistical information that I hope will help

A No.
Q Were you ever licensed to practice law?
A Yes.
Q Okay. Did you graduate from University of Chicago School of Law?
A I did, yes.
Q And you practice as a lawyer?
A I do not practice law.
Q You did practice as a lawyer?
A I did, yes.
Q Okay. And then you stopped?
A Yes.
Q Okay. When did you stop?
A Approximately 2006, I believe.
Q 2006. Now, Calico Solar is a single-purpose entity, right?
A It is, yes.
Q And a single-purpose entity is designed at least in part to insulate it from liability?
A Yes.
Q Now, Calico Solar, LLC, is owned by what entity?
A K Road Sun, LLC.
Q And K Road Sun, LLC, is that a single-purpose entity?
A It is, yes.

Q And Calico Solar, LLC, has one member, correct?
A Yes.
Q And that's K Road Sun?
A Sun, LLC, yes.
Q Now, K Road Sun, LLC, does it have one member?
A Yes, it does.
Q And who is that?
A I believe it's K Road Power Holdings, LLC.
Q Okay. Now, you didn't become involved in this project until when, December, January?
A Depends on what you mean by "involved." I was -- I became aware of the project in the late fall of 2010, but I was not involved in the day-to-day work associated with the project until late February of 2011.
Q Okay. When did you become an employee of Calico Solar, LLC?
A I'm not an employee of Calico Solar. I'm a consultant.
Q You're a consultant?
A Yes.
Q Does it have any employees?
A No.

Q But you say you're Vice President of Calico Solar?
A Right. I'm an elected officer of Calico Solar.
Q You're an elected officer as a consultant?
A Yes.
Q And you're not paid by Calico Solar, are you?
A No.
Q Who are you paid by?
A An affiliate of Calico Solar.
Q Which is?
A K Road Power Management, LLC.
Q That's two levels up?
A Yes.
Q And that's owned by who?
A It's indirectly -- I believe it's indirectly controlled by William Kriegel.
Q He's the managing member, right?
A He may have a company interposed between himself and that entity.
Q But he has the controlling interest, right?
A He has the controlling interest.
Q And that holding company, how many employees does it have?
A I would think ten employees.

MR. LAMB: Thank you.

Q Mr. Kriegel was a former -- formerly worked at Goldman Sachs, right?

A I'm sorry. A former?

Q Formerly worked at Goldman Sachs?

A Not to my knowledge.

Q Never?

A Not my knowledge.

Q All right. When you became involved in late September, did you become involved because you were told that there was an issue regarding whether or not SunCatchers were commercially viable?

A No. I understand that the project was available for purchase at that time, and I think there was a -- there was -- the reason for the sale was related to that, though.

Q Okay. When you say, "related to that, though," one of the issues was whether or not it was commercially viable to utilize SunCatchers, right?

A I think commercially available.

Q Commercially available?

A Yes. They weren't available on the schedule that Tessera Solar had thought they would be available.

Q Okay. And you knew that sometime

in September of 2010?

A September or October.

Q So when did K Road buy Calico Solar?

A I believe the date on the purchase agreement is December 24th, 2010.

Q And what was it that K Road bought?

A K Road bought the -- all of the outstanding membership interests in Calico Solar, LLC.

Q Did it assume the liabilities of Calico Solar, LLC?

A No.

Q So it was an asset purchase?

A It was a purchase of membership interests.

Q Okay. Assume it got the assets but not the liabilities.

A It bought a company that has assets and liabilities, but K Road Sun did not assume the liabilities associated with the project.

Q Oh, that's right. It's a single-purchase entity. So it's cut out, right?

A That's the nature of that sort of purchase.

Q Okay. Now, the assets, other than the right-of-way and the certification, what

other assets did Calico have?

A I mean it had contractual assets.

Q Such as?

A Let's see. It had a contract to purchase a transformer, two transformers actually at the time, that turned into a contract for one transformer. It had other contracts along those lines.

Q Okay.

A Smaller contracts for fencing, contracts associated with the project.

Q So the primary asset then was the right-of-way and the certification, correct?

A Yes. That's correct.

Q Now, at that time was there a power purchase agreement for SoCal Edison?

A When you say at that time?

Q At the time that K Road purchased Calico Solar, LLC.

A No, there was not.

Q Okay. And presently there's no power purchase agreement, right?

A That's correct.

Q What -- how much did K Road pay for Calico Solar?

MS. FOLEY GANNON: I'd object to that.

THE WITNESS: I believe that's confidential.

Exhibit J

STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

In the Matter of: The Application for Certification for the Calico Solar Project Amendment	Docket No. 08-AFC-13C

CALICO SOLAR, LLC'S REPLY BRIEF RE JURISDICTION OF ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION AND THE BASELINE OF ENVIRONMENTAL ANALYSIS REQUIRED BY THE PETITION TO AMEND

June 3, 2011

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Energy Resources Conservation and Development Commission

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Pursuant to the Committee Scheduling, Briefing, and Procedures Order of May 2, 2011, Calico Solar, LLC (Calico) files this reply brief concerning the Commission's jurisdiction and the baseline for environmental review. This brief also provides a reply to Sierra Club's Motion to Dismiss of May 9, 2011.

Although the specific facts involved are somewhat novel, the central legal issues before the Committee are simple and can be boiled down to:

(1) Does the Commission have exclusive jurisdiction to consider Calico's request to amend the Commission's license to allow for the construction of a 100.5 MW of solar thermal power generating facilities and all related project features?

(2) Must the Commission act as the lead agency in reviewing the amendment that would allow for the construction of a 100.5 MW of solar thermal power generating facility?

(3) Must the Commission consider the whole of the project when conducting its CEQA analysis regardless of the scope of its siting authority?

(4) Is the baseline for the environmental review the approved project?

The law is clear that the answer to each of these questions is irrefutably yes. Therefore, there is no basis for Sierra Club's Motion to Dismiss and this Motion should be rejected.

The question as to whether the Commission has certification authority over the proposed photovoltaic portions of the Modified Project is more complex as it is not specifically addressed in the Warren-Alquist Act. As is discussed in Calico's opening brief and further below, the Warren-Alquist Act does not preclude the Commission's certification of an integrated, hybrid thermal and non-thermal powerplant as claimed by intervenors Sierra Club, BNSF and CURE. A liberal reading of the statute authorizes the Commission to exercise its jurisdiction over hybrid powerplants. Further, exercising such jurisdiction is consistent with and furthers the goals of the Warren-Alquist Act.

I. THE COMMISSION IS THE ONLY AGENCY THAT CAN APPROVE THE 100.5 MW SOLAR THERMAL FACILITY AND ALL RELATED FACILITIES.

In its Petition to Amend, Calico asks the Commission to amend Calico's Approved Project to allow construction of, *inter alia*, a 100.5 MW solar thermal generating facility and related facilities such as a main service complex that includes administrative buildings, maintenance areas, control room and parking lots; roadways; a bridge over the BNSF railroad; transmission lines; water treatment facility; waste water treatment facilities; and an on-site substation. Under the Warren-Alquist Act, Pub. Res. Code §25500, the Commission is the *only* state agency with authority to consider and approve this solar thermal powerplant and related facilities. Therefore, there is no question as to whether the

Commission can authorize the 100.5 solar thermal portion of the Modified Project and all related facilities. Calico is before this Commission not as a matter of choice, but as a matter of necessity.[1]

Sierra Club and BNSF both assert that it is speculative whether SunCatchers will be a part of the Modified Project as proposed in the Petition to Amend and imply that this assertion somehow strips the Commission of its jurisdiction. This is a dramatic and dramatically misleading use of the word "speculative." As stated in the Petition to Amend, Calico is proposing to install 100.5 MW of SunCatcher technology as part of the Modified Project. Stirling Energy Systems has already demonstrated that SunCatcher technology can be commercially deployed. The 1.5 MW Maricopa Solar Plant is currently in commercial operation. The advantages of SunCatcher technology were not affected by the market turbulence that caused Stirling Energy Systems to delay its plans for high volume SunCatcher production. Stirling Energy Systems continues to plan for the large-scale manufacturing of SunCatchers. As Calico recently reported to the BLM:

> Calico has a contractual commitment to Tessera Solar to install SunCatcher technology on Phase 2 of the Calico Solar project, which is expected to begin construction in approximately 2014−15. Stirling Energy Systems (SES), the manufacturer of the SunCatcher technology, reports that it is in discussions with potential strategic investors to support the high volume commercial launch of the SunCatcher, and anticipates that SunCatchers will be commercially available approximately 24 months from the time that a transaction closes. This is consistent with the time frame required for installation on Phase 2 of the Calico Solar project.

[1] Given that Sierra Club views the Commission's procedures under the Warren-Alquist Act to be "chaotic and cumbersome," it is difficult to understand their apparent belief that Calico is somehow attempting to manipulate the Modified Project so that it can be subject to these procedures. (Sierra Club Notice of Protest of May 3, 2011 at 3.)

(Exhibit 1, Letter of May 31, 2011 to Teresa A. Raml, BLM District Manager and Attachment D, May 25, 2011 Letter from Stirling Energy Systems to K Road Power.) Calico remains committed to using SunCatchers technology.[2]

BNSF suggests, without citing anything relevant, that in order for the Commission to consider a Application for Certification or a Petition to Amend, the Commission must make an explicit finding regarding the feasibility of the project's technology. It suggests that this feasibility could be shown through things like a contract for the purchase of the technology to be used at a powerplant prior to the permitting of the powerplant. The Commission's regulations regarding the feasibility of alternatives that BNSF cites contain no such requirement.[3]

II. THE COMMISSION MUST EVALUATE THE ENTIRETY OF THE PETITION TO AMEND AS THE LEAD AGENCY.

Contrary to what Sierra Club suggests, the Commission must act as the lead agency with respect to the evaluation of the Petition to Amend. In its Motion to Dismiss, Sierra Club concedes, as it must, that Calico has proposed to construct a thermal powerplant. (Sierra Club Motion to Dismiss the Petition to Amend at 4, n.1.) The Commission is, therefore, required by the Warren-Alquist Act to act as the lead agency, Pub. Res. Code §

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[2] BNSF assertion that Calico knew as of late September or early October 2010 that SunCatchers would not be commercially available for the proposed Calico Solar Project is not accurate. The insinuation that Calico is not committed to or does not intend to use SunCatchers is blatantly false. As the Commission knows, Calico was sold in late December 2010 and this sale resulted in the need to amend the Approved Project.

[3] The regulations cited by BNSF to support this argument do not speak to the feasibility of the proposed project. For example, 20 Cal. Code Regs. §1741(b)(2) relates to feasible measures needed to ensure compliance with all applicable governmental laws and standards and 20 Cal. Code Regs. §1742(b) addresses the need to consider all feasible mitigation measures. It is not surprising that the regulations do not require consideration of whether a proposed project is feasible given that it is highly unlikely that an applicant would spend the significant resources needed to complete the certification process for an infeasible project.

25519(c), and it is also required by CEQA to evaluate the "whole of the action." 14 Cal. Code Regs. § 15378(a). As CURE notes, the Commission cannot consider the thermal and non-thermal aspects of the project as separate projects, and it cannot be the lead agency and the responsible agency for the same project. 14 Cal. Code Reg. § 15050(a). The Commission therefore must consider the entirety of the Petition to Amend as the lead agency under CEQA. This is true whether or not the Commission has siting authority over the photovoltaic portion of the Modified Project.

Sierra Club's argument that the Department of Fish and Game should be the lead agency is legally unsupportable. While the law is absolutely clear and Sierra Club is wrong, Calico notes that it has never claimed that the Commission should avoid seeking the input of the California Department of Fish and Game as it did in the original siting proceedings.

III. CEQA DOES NOT REQUIRE THE ENVIRONMENTAL REVIEW OF PROJECT AMENDMENTS TO START FROM SCRATCH

Pursuant to Rule 1769(a), the Applicant is seeking to modify an existing approval, not to start from scratch with a new project. 20 Cal. Code Regs. § 1769(a)(1). Therefore, the Commission does not have before it a new project, but rather a modification of a previously approved project. *Temecula Band of Luiseño Mission Indians v. Rancho Cal. Water Dist.*, 43 Cal. App. 4th 425, 437 (1996); *Mani Brothers Real Estate Group v. City of Los Angeles*, 153 Cal. App. 4th 1385, 1401-02 (2007). BNSF makes several exotic arguments that the Commission should consider the Petition to Amend as a new project rather than as a proposal to amend the Approved Project. None of BNSF's arguments have any basis.

BNSF asserts that "the photovoltaic project which is now being proposed as an amendment to the Initial Project was preliminarily analyzed as an alternative to the Initial Project…. Thus, Calico Solar's proposed PV project cannot appropriately be deemed an amendment to the Initial Project." (BNSF Railway Co.'s Brief Regarding Jurisdiction and Baseline, at 14.) BNSF's legal reasoning is conclusory and incorrect. The proposed amendments to the Approved Project were not previously analyzed by the Commission, and if they had been, there would be no need for further CEQA review. The fact that a hypothetical photovoltaic project was excluded from detailed consideration is not at all relevant to determining the level of analysis required for a specific amendment proposal that includes photovoltaic technology. [4]

BNSF argues that the existing site certification for the Approved Project constitutes "hypothetical conditions" that cannot be the baseline. BNSF then proceeds to make inflammatory, incorrect, and highly disputed assertions regarding Calico's alleged non-compliance with the Commission's existing site certification, which BNSF claims somehow affects the type of CEQA review that is now required. BNSF's argument is founded on two errors of law. First, the reason that the existing site certification for the Approved Project constitutes the baseline is simply that the project has *already* been thoroughly reviewed pursuant to CEQA. *San Diego Navy Broadway Complex Coalition v.*

[4] The SA-DEIS raised general concerns about potential grading of land with photovoltaic alternatives, based on the assumption that utility scale solar photovoltaic technology requires ground surface with less than three percent slope. SA-DEIS at B.2-63 to B-2-64. The SA-DEIS concluded that photovoltaic would have "substantial adverse effects similar to those created by the proposed Calico Solar Project," but that the grading required would "result[] in a somewhat more severe effect on biological and cultural resources than the Calico Solar Project." SA-DEIS at B.2-63. Apart from grading, the SA-DEIS noted no other concern regarding photovoltaic technology that would result in greater environmental impacts than the approved project. SA-DEIS at B.2-62 through 64.

City of San Diego, 185 Cal. App. 4th 924, 935 (2010); *Benton v Board of Supervisors*, 226 Cal. App. 3d 1467, 1479 (1991). Because the Approved Project was already reviewed, the baseline for the new environmental review is the Approved Project, which was previously analyzed, and the question that CEQA poses is what remains to be considered as a result of the Petition to Amend. *See Temecula*, 43 Cal. App. 4th at 437 ("When a lead agency is considering whether to prepare an SEIR, it is specifically authorized to limit its consideration of the later project to effects not considered in connection with the earlier project."). This question is answered by Public Resources Code section 21166 and Guideline 15162. *San Diego Navy Broadway Complex Coalition*, 185 Cal. App. 4th at 935. Apparently, BNSF would have the Commission ignore all of the prior environmental review, but this is not an approach that CEQA allows. *Id.* at 928 ("After an initial EIR is certified, CEQA establishes a presumption against additional environmental review.").

Communities for a Better Environment v. SCAQMD, 48 Cal. 4th 310 (2010) is not to the contrary. In *SCAQMD*, ConocoPhillips applied for an entirely new permit and the air district processed the application as a new project. *Id.* at 326. *SCAQMD* did not involve the "modification of a previously analyzed project," which the Supreme Court made clear was dispositive. *Id.* *SCAQMD* and Guideline 15125(a) does not apply in the situation where there is a proposal to modify a previously analyzed project. *Temecula*, 43 Cal. App. 4th at 437. The Petition to Amend is a proposal to modify a previously analyzed project. 20 Cal. Code Regs. § 1769(a)(1).

BNSF's second legal error is its assertion that the presence or absence of Calico's current right to build the Approved Project is somehow determinative of the nature of the environmental review that is now required. Once again, this argument ignores the previous

environmental review and attempts to rewrite CEQA. BNSF's focus on Calico's legal rights as opposed to the scope of what has been reviewed pursuant to CEQA is exactly the type of legal error that the Supreme Court disapproved in *SCAQMD*.

Finally, BNSF makes several assertions about what it believes will be the environmental impacts of the Modified Project. To the extent that BNSF is suggesting that the proposed changes render the Modified Project a new project, BNSF is simply wrong. To the extent that BNSF's argument indirectly suggests that the Commission must analyze the incremental changes in the impacts of the Approved Project, Calico agrees. The Commission will need to evaluate whether the incremental changes of the Modified Project as compared to the Approved Project will result in new significant impacts. The Commission will need to analyze, for example, the incremental impacts to glint and glare of the Modified Project as compared to the Approved Project, and the incremental impacts, if any, of changing the route of the water line.[5] *Temecula*, 43 Cal. App. 4th at 438.

BNSF does not endeavor to explain what new environmental impacts are at issue, let alone explain why "[i]t is clear … that the Commission cannot evaluate solely the incremental difference in environmental impacts...." (BNSF Railway Co.'s Brief Regarding Jurisdiction and Baseline, at 16.) The Committee's task in evaluating what BNSF has claimed about unspecified impacts is unnecessarily complicated by BNSF's

[5] Calico notes that it disagrees with BNSF's characterization of what may be potential new impacts of the Modified Project. For example, BNSF wrongly states that in the Petition to Amend Calico is proposing to "place private at-grade crossing at a BNSF station." The Hector Road crossing to which BNSF refers already exists and BNSF allowed Calico to use that crossing in the past. Further, Calico's use of the Hector Road crossing and open route AF058 has been analyzed and was contemplated in the Commission's Decision, as is depicted in "Project Description Figure 1." Commission Decision, Project Description at 19.

complete refusal to address how CEQA Guideline 15162(a) applies in these proceedings.[6] Rather than addressing the Committee's request for briefing on Guideline 15162, BNSF instead claims that the Commission should start from scratch in reviewing the Modified Project. Nothing supports BNSF's claim.

IV. THE WARREN-ALQUIST ACT ALLOWS THE COMMISSION TO CONSIDER APPROVING PHOTOVOLTAIC TECHNOLOGY THAT IS INTEGRATED WITH A THERMAL POWERPLANT.

All the parties to this proceeding recognize and agree that the Commission does not have siting authority over a photovoltaic powerplant. There is disagreement, however, whether the Commission has jurisdiction over an amendment of a previously approved project that includes an integrated hybrid thermal and non-thermal powerplant located on a single site. The intervenors all mistakenly assert that this question is answered by looking at the definition of thermal powerplant in section 25120. This tautological approach ignores the fact that this definition does not purport to establish the extent of the Commission's authority, and it provides no guidance regarding hybrid sites that have both thermal powerplant and non-thermal generation facilities. The simple fact that a photovoltaic facility is not a "facility" under the Warren-Alquist Act does not mean that the Commission is prohibited from having jurisdiction over a project utilizing some photovoltaic technology.

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[6] The Commission must, of course, consider any changes that result in new and significant environmental impacts. Under Rule 1769(a)(3)(B), it must also consider whether there are LORS issues that were not present in the prior project, but it cannot consider operational issues or generic safety issues affecting BNSF's employees and agents *pursuant to CEQA* that are unrelated to environmental impacts. 20 Cal. Code Regs. 1769(a)(3)(B); *Eureka Citizens for Responsible Government v. City of Eureka*, 147 Cal.App.4th 357, 377 (2007) (safety is "an important issue," but "CEQA studies significant, physical impacts on the environment and [safety for particular persons] is not such an issue...."). In this respect, BNSF's concerns about its employees, agents, and operations fall outside the scope of Guideline 15162(a).

Section 25500 of the Warren-Alquist Act gives the Commission the exclusive power to approve "sites and related facilities" in California. The definition of the term "site" requires that a "thermal powerplant" be present on a "site," but it does not exclude photovoltaic facilities from "sites" within the Commission's jurisdiction. *See* Pub. Res. Code § 25110, 25119. No hidden intent to exclude photovoltaic facilities from sites within the Commission's jurisdiction can be read into a definition that simply requires that a thermal powerplant be present, and reading any such intent into the statute would be inconsistent with the legislative instruction that the statute be construed liberally. *See* Pub. Res. Code. § 25218.5 ("The provisions specifying any power or duty of the commission shall be liberally construed, in order to carry out the objectives of this division.").

Where photovoltaic facilities are combined with a thermal powerplant, the required trigger for the Commission's jurisdiction over the site is present. The Warren-Alquist Act does not support the proposition that the Commission only has partial jurisdiction over hybrid sites that are entirely dedicated to electrical generation. In section 25006, the Legislature expressly stated its intent "to establish and *consolidate* the state's responsibility for energy resources, …, and *for regulating electrical generating and related transmission facilities*." Pub. Res. Code § 25006; *see Public Utilities Commission v. Energy Resources Conservation and Development Commission*, 150 Cal. App. 3d 437, 448 (1984) ("the hearings that led to enactment of the Warren-Alquist Act reflect concern with the ills of fractionalized regulation in the area of energy policy" in the context of the "regulations affecting the siting of powerplants"). Photovoltaic facilities are a type of "electrical generating facilities." Pub. Res. Code § 25006; *see DaFonte v. Up-Right, Inc.*, 2 Cal.4th

593, 601 (1992) ("To determine the intent of legislation, we first consult the words themselves, giving them their usual and ordinary meaning.").[7]

Intervenors Sierra Club, CURE, and BNSF seem to cite the Court of Appeal's decisions in *Department of Water & Power v. Energy Resources Conservation and Development Commission*, 2 Cal. App. 4th 206 (1991), and *Public Utilities Commission*, 150 Cal. App. 3d 437 (1984), simply because these cases addressed jurisdictional questions. Neither decision, however, addressed the scope of the Commission's jurisdiction over a hybrid thermal and non-thermal powerplant. *Department of Water & Power* addressed the scope of the Commission's "modification jurisdiction" under section 25123. As CURE notes, the Commission's modification jurisdiction is not relevant in these proceedings because there is no "existing facility."[8]

With respect to *Public Utilities Commission*, the intervenors ignore the fact that the decision affirmatively supports Staff's and the Calico's position. In *Public Utilities Commission*, the Court of Appeal considered the scope of the Commission's jurisdiction

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[7] The definition of "facility" in section 25110 cannot be invoked to avoid the ordinary meaning of the term "electrical generating facilities" in section 25006. The use of the word facilities is highly contextual in the Warren-Alquist Act. *See* Pub. Res. Code § 25100 (definitions in the Warren-Alquist Act do not apply if context requires a different meaning). If "electrical generating … facilities" in section 25006 was intended simply be another way of stating "thermal powerplants," then the Legislature would *not* have defined "thermal powerplant" as *a type* of "electrical generating facility" in section 25120. Pub. Res. Code § 25120. Yet, that is precisely what the Legislature did, in keeping with the ordinary meaning of the phrase. A "thermal powerplant" is *a type* of "electrical generating facility" that uses "thermal energy" and that has a "generating capacity of 50 megawatts or more." Pub. Res. Code § 25120. Photovoltaic facilities are another *type* of "electrical generating facility." *See* Pub. Res. Code § 25006. Calico agrees with Staff that the drafters of the Warren-Alquist Act had no reason to contemplate hybrid thermal and non-thermal projects in 1974, but it is equally important that the language of the Act does not support limiting the Commission's jurisdiction over such sites once the Commission's thermal powerplant jurisdiction is triggered.

[8] CURE relies on *Department of Water & Power* for the proposition that the definitions in the Warren-Alquist Act are relevant to the Commission's jurisdiction. This is undisputed, although the interpretation of these definitions is clearly disputed. CURE suggests that *Department of Water & Power* stands for the proposition that a "strict" canon of construction controls rather than the liberal canon of construction required by section 25218.5, but CURE simply reads a holding into *Department of Water & Power* that is not present.

over electric transmission lines. *See* Pub. Res. Code § 25107. The court rejected the contextual "functional test" for jurisdiction over transmission lines in part because it would require "case-by-case determination by the Energy Commission of the extent of its jurisdiction," leading to prolonged ambiguity, "jurisdictional challenges," and "regulatory havoc" that would be "inimical to the salutary policy which informs the Warren-Alquist Act." 150 Cal. App. 3d at 453. This sort of case-by-case determination is exactly what will be required if the Commission lacks jurisdiction over the photovoltaic facilities that are part of integrated hybrid projects. The entirety of the site will be dedicated to electrical power generation and will share all supporting facilities. The Commission, however, will be obligated to determine which supporting facilities are "dedicated and essential to the operation of the thermal powerplant" and which are not. 20 Cal. Code Regs. §1702(n). These contextual determinations will likely be the subject of "jurisdictional challenges" and the fractured jurisdiction over a single electrical generating powerplant will likely create "regulatory havoc." 150 Cal. App. 3d at 453.

As in *Public Utilities Commission*, the fractured jurisdiction that results from this reading of the statue is "inimical" to the goals of the Warren-Alquist Act. *Id*. "[T]he hearings that led to enactment of the Warren-Alquist Act reflect concern with the ills of fractionalized regulation in the area of energy policy," and this concern "focused upon regulations affecting the siting of powerplants and the need for a unified energy policy with respect thereto." 150 Cal. App. 3d at 448. Requiring fractured jurisdiction over hybrid powerplants is not in the public interest as expressed by the Warren-Alquist Act.

In addition to *Department of Water & Power* and *Public Utilities Commission*, Sierra Club's "Notice of Protest" relies upon Attorney General Opinion SO 77-43. Nothing

in that opinion supports Sierra Club's position. 61 Ops. Cal. Atty. Gen. 127, 1978 WL 22741 (1978). The Attorney General's opinion found that geothermal wells are independently regulated by other statutes, that they are similar to oil and gas wells that are outside of the Commission's jurisdiction, and that they therefore do not fall within the scope of "regulating electrical generating and related transmission facilities." *Id.* at *5 (quoting Pub. Res. Code § 25006; underlining in original). The photovoltaic modules proposed in the Petition to Amend are "electrical generating facilities" that can be considered for approval by the Commission when they are combined with a thermal powerplant. They do not fall under any other focused regulatory program, implemented by an agency with the necessary expertise to evaluate them.[9] Accordingly, the facts confronted by the Attorney General were different, but the Attorney General's logic supports Staff's position.

V. CONCLUSION

Calico's Petition to Amend seeks authorization to amend the Approved Project in order to construct a powerplant that will include 100.5 MW of solar thermal electrical generating facility and numerous related facilities that are necessary for the operation of the solar thermal facility. It is clear under the Warren-Alquist Act that the Commission has exclusive jurisdiction to license the solar thermal portion of the Modified Project. It is also clear that the Commission must act as the lead agency in considering the Petition to Amend and the Commission's review must consider incremental changes in environmental impacts

[9] In fact, for a project like the one at issue here, if the Commission does not have siting authority over the photovoltaic portions of the project, no state or local agency with land use expertise will have authority over them because the project is located on federal lands.

that would occur as a result of construction of the entire Modified Project as compared to the Approved Project. This true regardless of the Commission's siting authority over hybrid facilities. Therefore, the Commission has jurisdiction over the Petition to Amend and Sierra Club's Motion to Dismiss should be denied.

Contrary to the Intervenors' assertion, the Warren-Alquist Act does not prohibit the Commission from licensing an integrated powerplant that includes both solar thermal and photovoltaic technology. Under a liberal reading, the Commission does have exclusive jurisdiction over such a hybrid project. Because a liberal reading is consistent with the language of the Act and its legislative history, Calico submits that the Commission has siting authority over the entire Modified Project.

Date: June 3, 2011

Respectfully submitted,

/s/

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FOR THE CALICO SOLAR PROJECT AMENDMENT

Docket No. 08-AFC-13C
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(Revised 6/7/2011)

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DECLARATION OF SERVICE

I, Helen B. Kim, declare that on July 12, 2011, I served by U.S. mail and filed copies of the attached **Verified Complaint to Revoke Certification**. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: **[www.energy.ca.gov/sitingcases/calicosolar/compliance/index.html]**.

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

X sent electronically to all email addresses on the Proof of Service list;

_ by personal delivery;

X by delivering on this date, for mailing with the United States 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 "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

X delivering an original paper copy and sending one electronic copy by e-mail to the address below (***preferred method***);

OR

depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-13C
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury 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.

Helen B. Kim
Katten Muchin Rosenman LLP

Attorneys for BNSF Railway Company