



**Joseph Schnell**  
Manager Special Projects

**BNSF Railway Company**  
2600 Lou Menk Drive  
Ft. Worth, TX 76131

Tel: (817) 352-1918  
Fax: (817) 352-7835  
Joseph.Schnell@BNSF.com

July 29, 2010

Mr. Christopher Meyer  
Energy Commission Project Manager  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814-5512

Mr. Jim Stobaugh  
Project Manager  
BLM Nevada State Office  
P.O. Box 12000  
Reno NV 89520

**Re: BNSF Comments Regarding Prehearing Conference  
and for Consideration at Evidentiary Hearing**

**Calico Solar Project (Formerly SES Solar 1)  
Docket No. 08-AFC-13**

Dear Sirs:

BNSF Railway ("BNSF") appreciates the opportunity to present comments for consideration during the Prehearing Conference, during which the Committee will assess the parties' readiness for an evidentiary hearing, identify areas of agreement or dispute, and discuss the remaining schedule and procedures necessary to conclude the certification process, and for consideration during the evidentiary hearing. [Cal. Code Regs., Tit. 20, § 1718.5; Notice of Prehearing Conference and Evidentiary Hearings, p. 3.] BNSF has reviewed the Staff Assessment and Draft Environmental Impact Statement ("SA/DEIS") for the Calico Solar Project ("Project") proposed by the Applicant Calico Solar, LLC ("Applicant" or "Calico Solar") published March 30, 2010, and the Supplemental Staff Assessment ("SSA"), published July 21, 2010. As explained in a previous submission, BNSF is one of the two Class 1 railroads operating in California. BNSF's mainline, which is traversed by as many as 80 trains per day, carries interstate commerce from the Ports of Los Angeles and Long Beach to U.S. Midwestern, Southwestern and Eastern markets. The proposed Project would surround both sides of several miles of BNSF's mainline tracks. Accordingly, BNSF has significant concerns that the construction and operation of the Project do not adversely impact BNSF operations or otherwise impose unacceptable safety risks to BNSF personnel and operations.

**DOCKET**

**08-AFC-13**

DATE JUL 29 2010

RECD. JUL 29 2010

Mr. Christopher Meyer  
Mr. Jim Stobaugh  
Page 2  
July 29, 2010

The consummation of the Project would require the granting of several licenses and permits from BNSF, which Calico Solar has requested in a piecemeal fashion over the course of the past year. To date, none of these requested licenses or permits have been granted. Before BNSF can grant such licenses and permits, BNSF must be assured that the concerns detailed below be addressed. The purpose of this submission is to provide the committee with a summary of the areas of concern, and to identify those concerns that BNSF feels have not been resolved.

**1. *Transmission Line Safety and Nuisance - Induction***

BNSF is concerned the proposed proximity of the transmission line to BNSF's mainline may result in electrical induction on the rail. As has been addressed in previous submissions, the proposed Project would include approximately 1.9 miles of new transmission line immediately adjacent to BNSF's mainline. BNSF has experienced interference with signals, equipment malfunction, and employees being shocked in similar situations in other locations, and is concerned that the proposed configuration of these Project elements may raise a safety issue.

In the absence of any studies addressing induction issues which may be caused by the Project, BNSF has taken a conservative position with respect to the necessary setback of the transmission line to avoid any induction issues, and believes that a 300' setback from the right of way should be maintained. Calico Solar has agreed to set back the proposed transmission line 300' from the BNSF right of way. In addition, per BNSF requirements, in the location where the transmission line is proposed to cross the tracks, it would do so at a 90-degree angle, and would travel 300' from the far side of the right of way before returning to a parallel configuration. Avoiding electrical induction of the rail line is a critical safety requirement. Therefore, BNSF requests that Calico Solar's agreed-upon setback of the transmission line from the right of way be incorporated into the Committee's decision on Calico Solar's application as a Condition of Certification.

**2. *Hazardous Materials Management - Hydrogen***

Due to critical safety concerns, BNSF opposes the transport of hydrogen above or beneath its tracks. BNSF is concerned that hydrogen pipelines passing under or near the mainline track may adversely impact rail operations and create unacceptable safety risks. Calico Solar has proposed two alternate systems to provide hydrogen to the 34,000 SunCatchers proposed to be constructed on the 6,215 acre site within 100' of both sides of approximately five miles of the transcontinental mainline. Under one scenario, the Applicant would construct a single extensive underground pipeline system, 2 ½ feet below the ground, serving the entire Project. SSA p. C.5-8. This approach would involve boring a hydrogen pipeline under the mainline, which has the potential to compromise the integrity of the track structure. Moreover, BNSF's routine maintenance activities involve digging, trenching, excavating and filling areas of the right of way. A hydrogen pipeline located under or near the right of way could be contacted during these

Mr. Christopher Meyer

Mr. Jim Stobaugh

Page 3

July 29, 2010

activities, posing a safety hazard to employees. Finally, if a derailment were to occur, given the desert sands, train cars could come in contact with the shallow underground pipeline system.

Under the second alternative scenario, hydrogen for the SunCatchers would be generated on-site and would be distributed to the SunCatchers via bottles carried on trucks. SSA p. C.5-8. This would involve individual SunCatchers being supplied from the hydrogen storage tank by trucks. An accident or collision between the hydrogen trucks and another vehicle or train at the at-grade crossing, or an accident on the proposed bridge, could result in significant safety issues.

Calico Solar has represented that it is willing to provide hydrogen to the SunCatchers through two separate hydrogen systems, one on the north side of the right of way and one on the south side, thereby helping to alleviate BNSF's stated concerns. BNSF supports the placement of two separate hydrogen generation facilities, one north and one south of its tracks, and requests that this be incorporated into the Committee's decision on Calico Solar's application as a Condition of Certification. In addition, if Calico Solar opts to use the centralized pipeline system, the appropriate distance of the nearest pipelines to the right of way would need to be determined.

BNSF requests that the Risk Analysis being prepared with respect to hydrogen consider possible derailment scenarios, appropriate mitigation be determined and the system not be activated until all mitigation is fully implemented. BNSF also requests that should the centralized pipeline system be selected, the exact location of hydrogen pipelines in relation to the signal cable and the right of way be evaluated to ensure the protection of rail infrastructure and operations. In addition, BNSF requests that sensors be required to be placed to detect hydrogen leaks; that mitigation measures such as automatic shut-off valves along the hydrogen pipeline be required; that the Spill Prevention, Control, and Countermeasures Plan require notification of the railroad of hydrogen releases which could impact rail safety and operations; and that an auto-dialer and/or other notification system be established to promptly notify BNSF of such hydrogen releases.

### **3. *Biological Resources – Desert Tortoise***

In a derailment scenario, BNSF workers and emergency response personnel must have full access to BNSF's right of way and the adjacent lands in order to respond to the emergency. Such access will likely require temporary removal of portions of the desert tortoise exclusionary fence the Applicant is required to install as part of the Project. BNSF requests that, in the case of derailment or other emergency, Calico Solar be required to provide BNSF access to the Project site for emergency response as a Condition of Certification. This access may include, among other activities, temporary removal of portions of the desert tortoise exclusionary fencing and the placement of a temporary fence. BNSF also requests that the Condition of Certification require Calico Solar contractors and employees to participate in BNSF's environmental sensitivity training program prior to commencing work at the Project site.

Mr. Christopher Meyer  
Mr. Jim Stobaugh  
Page 4  
July 29, 2010

#### **4. *Soil and Water Resources – Detention Basins***

BNSF is concerned that detention basins are not sufficient to protect the tracks and their supporting structures. The Project incorporates detention basins that have been designed for a 100 year flood. SSA. P. C.7-26. Given the gradient of the Project site, BNSF is concerned that the steps being proposed are not adequate to ensure protection of the tracks and their supporting structures or soil. A characteristic of high desert environs such as the Project site is an increased likelihood of flash floods, which over a sustained period of hours or days may cause the detention basins to overflow and cause a high volume of water in a concentrated flow to wash through the area, eroding the terrain around and supporting the tracks. It needs to be determined whether the applicant should be required to fund the reinforcement of rail infrastructure.

#### **5. *Hydrology - Subsidence***

As has been addressed in previous submissions, BNSF is concerned the potential drawdown of the groundwater basin by the newly proposed water well may cause subsidence which might adversely affect rail track alignment, increasing the risk of derailment. While the SA/DEIS briefly addresses the issue of possible subsidence due to groundwater pumping at p. C.4-12, and the SSA discusses the issue at C.4-13 (Geology and Paleontology), BNSF is concerned that the analysis may not be sufficient. In addition, while Calico Solar represents that it is currently the only water user in the groundwater basin, BNSF notes that it intends to preserve the option of replacing its abandoned wells in the Hector Road location.

BNSF understands that Calico Solar is required to conduct groundwater monitoring on a quarterly basis. BNSF requests that as a Condition of Certification, Calico Solar be required to provide BNSF with such quarterly reports, and that a notification procedure be put in place for any noted subsidence, whereby BNSF maintenance teams would be alerted of the issue.

#### **6. *Transportation – Glint and Glare***

As has been addressed in previous submissions, the portion of the BNSF mainline along which the Project is proposed to be built is curved. An essential signal for rail traffic is located in the vicinity near Hector Road. Signals are critical safety features. The Applicant proposes to locate the nearest SunCatcher as close as 100' from the right of way, on both sides of the transcontinental mainline track for approximately five miles. Daytime glint and glare from the 34,000 SunCatcher mirrors and associated structures, in particular when the mirrors are in offset tracking position, may significantly impact BNSF engineers' ability to see the signal. The situation would be exacerbated by the site elevations which Calico Solar has proposed.

BNSF is required by federal regulations to maintain visual contact with signals. If a train's contact with a signal is lost and cannot be regained, the engineer is required to stop the train.

Mr. Christopher Meyer  
Mr. Jim Stobaugh  
Page 5  
July 29, 2010

This often requires an emergency application of the brakes, risking derailment of the train. When a train has been stopped through emergency application of the brakes, BNSF General Code of Operating Rule 6.23 requires the engineer to inspect all cars, units, equipment and track pursuant to BNSF special instructions and rules. This can cause significant delays to rail operations with ramifications reaching from the Ports of Los Angeles and Long Beach to Chicago and beyond.

The illuminated background created by the SunCatcher field could result in an engineer perceiving the signal to be dark or to be displaying a white light, both of which, under BNSF General Code of Operating Rule 9.4, require the engineer immediately to stop the train.

Thus, glint and glare are critical safety and operational issues. While the SA/DEIS has begun to address glint and glare with respect to motorists on nearby roadways (SA/DEIS pp. C.13-13 – C.13-22), and BNSF understands that a Glint and Glare Study is currently being performed, neither currently addresses potential glare impacts to rail, nor are these studies specific to the Project site. In addition, the SSA Transportation section has not yet been released, and BNSF is therefore unable to make meaningful comments on the potential Glint and Glare analysis at this time.

BNSF requests that the following Condition of Certification be incorporated into the Project:

Prior to the first SunCatcher disc being mounted on a pedestal, a site-specific Glare/Glint study shall be performed to address the Glare /Glint issues raised by BNSF with respect to the potential impact of the proposed Calico Solar SunCatchers on BNSF rail operations and the recommended mitigation measures, once approved by BNSF, shall be implemented by Calico Solar at its expense.

As information and studies and the section of the SSA responsive to this critical concern, among other vital transportation related concerns, remain to be published in the coming weeks, BNSF intends to submit a petition to intervene in this proceeding. Accordingly, Calico Solar has agreed to support BNSF's petition. BNSF will include the above comments in declarations as soon as possible, some of which will accompany the petition to intervene.

To the extent that any of the above rail-related issues have not been analyzed in the Project SA/DEIS or SSA, BNSF asks that the issues be analyzed and incorporated into any Committee decision regarding the Project. BNSF requests that, where applicable, the issues be addressed, through Project design, operation plans, permit conditions, or as mitigation measures as appropriate. We will continue to work with Calico Solar and look forward to meeting with CEC and BLM Project teams as soon as possible to provide any information or suggestions that will assist the agencies in their analysis and recommendations. Thank you for the opportunity to comment on the SA/DEIS and SSA. If you have any questions, please contact Mr. Joseph Schnell at (817) 352-1918.

Mr. Christopher Meyer  
Mr. Jim Stobaugh  
Page 6  
July 29, 2010

Very truly yours,

A handwritten signature in black ink, appearing to read "J. Schnell". The signature is stylized with a large initial "J" and a cursive "Schnell".

Joseph Schnell



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT  
COMMISSION OF THE STATE OF CALIFORNIA  
1516 NINTH STREET, SACRAMENTO, CA 95814  
1-800-922-6228 – WWW.ENERGY.CA.GOV

**APPLICATION FOR CERTIFICATION**

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

**Docket No. 08-AFC-13**

**PROOF OF SERVICE**  
*(Revised 7/12/10)*

**APPLICANT**

Felicia Bellows  
Vice President of Development & Project  
Manager  
Tessera Solar  
4800 North Scottsdale Road, #5500  
Scottsdale, AZ 85251  
[felicia.bellows@tesserasolar.com](mailto:felicia.bellows@tesserasolar.com)

**CONSULTANT**

Angela Leiba  
AFC Project Manager  
URS Corporation  
1615 Murray Canyon Rd., #1100  
San Diego, CA 92108  
[angela\\_leiba@URSCorp.com](mailto:angela_leiba@URSCorp.com)

**APPLICANT'S COUNSEL**

Allan J. Thompson  
Attorney at Law  
21 C Orinda Way #314  
Orinda, CA 94563  
[allanori@comcast.net](mailto:allanori@comcast.net)

Ella Foley Gannon, Partner  
Bingham McCutchen, LLP  
Three Embarcadero Center  
San Francisco, CA 94111  
[ella.gannon@bingham.com](mailto:ella.gannon@bingham.com)

**INTERESTED AGENCIES**

California ISO  
[e-recipient@caiso.com](mailto:e-recipient@caiso.com)  
Jim Stobaugh  
BLM – Nevada State Office  
P.O. Box 12000  
Reno, NV 89520  
[jim\\_stobaugh@blm.gov](mailto:jim_stobaugh@blm.gov)

Rich Rotte, Project Manager  
Bureau of Land Management  
Barstow Field Office  
2601 Barstow Road  
Barstow, CA 92311  
[Richard\\_rotte@blm.com](mailto:Richard_rotte@blm.com)

Becky Jones  
California Department of  
Fish & Game  
36431 41<sup>st</sup> Street East  
Palmdale, CA 93552  
[dfgpalm@adelphia.net](mailto:dfgpalm@adelphia.net)

**INTERVENORS**

County of San Bernardino  
Ruth E. Stringer, County Counsel  
Bart W. Brizzee, Deputy County Counsel  
385 N. Arrowhead Avenue, 4<sup>th</sup> Floor  
San Bernardino, CA 92415-0140  
[bbrizzee@cc.sbcounty.gov](mailto:bbrizzee@cc.sbcounty.gov)

California Unions for Reliable Energy  
(CURE)  
c/o: Loulena A. Miles, Marc D. Joseph  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Ste. 1000  
South San Francisco, CA 94080  
[lmiles@adamsbroadwell.com](mailto:lmiles@adamsbroadwell.com)

Defenders of Wildlife  
Joshua Basofin  
1303 J Street, Suite 270  
Sacramento, California 95814  
*e-mail service preferred*  
[jbasofin@defenders.org](mailto:jbasofin@defenders.org)

Society for the Conservation of  
Bighorn Sheep  
Bob Burke & Gary Thomas  
P.O. Box 1407  
Yermo, CA 92398  
[cameracoordinator@sheepsociety.com](mailto:cameracoordinator@sheepsociety.com)

Basin and Range Watch  
Laura Cunningham & Kevin Emmerich  
P.O. Box 70  
Beatty, NV 89003  
[atomicoadranch@netzero.net](mailto:atomicoadranch@netzero.net)

Patrick C. Jackson  
600 N. Darwood Avenue  
San Dimas, CA 91773  
*e-mail service preferred*  
[ochasjack@earthlink.net](mailto:ochasjack@earthlink.net)

Gloria D. Smith, Senior Attorney  
Sierra Club  
85 Second Street, Second Floor  
San Francisco, CA 94105  
[gloria.smith@sierraclub.org](mailto:gloria.smith@sierraclub.org)

**\*Newberry Community Service District**  
**Wayne W. Weierbach**  
P.O. Box 206  
Newberry Springs, CA 92365  
[newberryCSD@gmail.com](mailto:newberryCSD@gmail.com)

**ENERGY COMMISSION**

ANTHONY EGGERT  
Commissioner and Presiding Member  
[aeggert@energy.state.ca.us](mailto:aeggert@energy.state.ca.us)

JEFFREY D. BRYON  
Commissioner and Associate Member  
[jbyron@energy.state.ca.us](mailto:jbyron@energy.state.ca.us)

Paul Kramer  
Hearing Officer  
[pkramer@energy.state.ca.us](mailto:pkramer@energy.state.ca.us)

Lorraine White, Adviser to  
Commissioner Eggert  
*e-mail service preferred*  
[lwhite@energy.state.ca.us](mailto:lwhite@energy.state.ca.us)

Kristy Chew, Advisor to  
Commissioner Byron  
*e-mail service preferred*  
[kchew@energy.state.ca.us](mailto:kchew@energy.state.ca.us)

Caryn Holmes  
Staff Counsel  
[cholmes@energy.state.ca.us](mailto:cholmes@energy.state.ca.us)

Steve Adams  
Co-Staff Counsel  
[sadams@energy.state.ca.us](mailto:sadams@energy.state.ca.us)

Christopher Meyer  
Project Manager  
[cmeyer@energy.state.ca.us](mailto:cmeyer@energy.state.ca.us)

Jennifer Jennings  
Public Adviser  
[publicadviser@energy.state.ca.us](mailto:publicadviser@energy.state.ca.us)

\*indicates change

**DECLARATION OF SERVICE**

I, Harriet Vletas, declare that on July 29, 2010, I served and filed copies of the attached BNSF Comments Regarding Pre-Hearing Conference and for Consideration for Evidentiary Hearing, dated July 29, 2010. 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](http://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:**

- sent electronically to all email addresses on the Proof of Service list;
- by personal delivery;
- 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:**

- 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](mailto: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.

  
HARRIET VLETAS