



October 26, 2010

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

DOCKET	
08-AFC-13	
DATE	<u>OCT 26 2010</u>
RECD.	<u>OCT 26 2010</u>

RE: Calico Solar (formerly Solar One) Project (08-AFC-13)
Applicant's Submittal of Comments on the Soil and Water Conditions of Certification

Dear Mr. Meyer:

Pursuant to the Committee's Notice of Continuance of Committee Conference and Order Authorizing Shortened Notice of Staff Workshop, dated October 23, 2010, Tessera Solar hereby submits Applicant's Suggested Revisions to Certain SOIL&WATER Conditions. 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

**APPLICANT'S
SUGGESTED REVISIONS TO CERTAIN SOIL&WATER CONDITIONS**

Calico Solar (formerly known as SES Solar One) Project
Docket No. 08-AFC-13

Based upon discussions at the workshop held on October 25, 2010, the Applicant anticipates that timing issues related to Phase 1a may arise out of revisions to the SOIL&WATER conditions proposed by BNSF and the Staff. To allow for the initial construction of Phase 1a, the Applicant requests that, should the Committee elect to include the refinements suggested by Staff and/or BNSF, the requirements of the SOIL&WATER conditions relating to the identification and implementation of any necessary storm water management facilities be phased. Provided below is a new condition, SOIL&WATER XX, which specifies the measures that must be completed prior to site mobilization for Phase 1a. This new condition is based upon the SOIL&WATER 1 and SOIL&WATER 8 from the PMPD and the redline/strike outs show changes to these PMPD conditions. Consistent with the evidence in the record and the findings included in the PMPD, this new condition will ensure that there are no significant soil and water impacts associated with construction of Phase 1a. The Applicant further requests that if the Committee elects to incorporate any of the revisions proposed by Staff, BNSF or any other intervenor, it similarly ensure that the measures do not preclude the timely construction of Phase 1a. The Applicant anticipates that this can be accomplished by providing that the revised conditions be tied to the commencement of construction of Phase 1b. The Applicant will be prepared to discuss phasing of these conditions at the October 26, 2010 hearing.

Proposed New Condition SOIL&WATER-XX

The Applicant proposes a new SOIL&WATER condition for Phase 1a:

SOIL&WATER-XX This condition applies to Phase 1a, as defined in **BIO-31** (Project Construction and Compensation Phasing Plan). The first three paragraphs of the General Requirements of **BIO-31** shall also apply to this condition.

A. DRAINAGE EROSION AND SEDIMENTATION CONTROL PLAN Prior to site mobilization for Phase 1a, the project owner shall obtain the CPM's approval of a site specific Drainage, Erosion and Sediment Control Plan (DESCP) for Phase 1a that ensures protection of water quality and soil resources at the project site and all linear facilities for both during the construction and operation phases of Phase 1a of the project. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in off-site flooding potential, and identify all monitoring and maintenance activities. The project owner shall complete all necessary engineering plans, reports, and documents necessary for Burlington Northern Santa Fe Railway (BNSF)

and the CPM to conduct a review of the proposed ~~project~~ Phase 1a and provide a written evaluation as to whether the proposed grading, drainage improvements, and flood management activities comply with all requirements presented herein. The plan shall ~~be consistent with the grading and drainage plan as required by Condition of Certification CIVIL-1~~ and shall contain the following elements:

- **Vicinity Map:** A map shall be provided indicating the location of all Phase 1a project elements with depictions of all major geographic features to include watercourses, washes, irrigation and drainage canals, major utilities, and sensitive areas in Phase 1a.
- **Site Delineation:** The Phase 1a site and all project elements shall be delineated showing boundary lines of all construction areas and the location of all existing and proposed structures, underground utilities, roads, and drainage facilities. Adjacent property owners shall be identified on the plan maps. All maps shall be presented at a legible scale.
- **Drainage:** The DESCP shall include the following elements:
 - a. Topography. Topography for offsite areas ~~is required as~~ necessary to define the existing upstream tributary areas to the site and downstream to provide enough definition to map the existing storm water flow and flood hazard. Spot elevations shall be required where relatively flat conditions exist.
 - b. Proposed Grade. Proposed grade contours for Phase 1a shall be shown at a scale appropriate for delineation of onsite ephemeral washes, drainage ditches, and tie-ins to the existing topography.
 - c. Hydrology. Existing and proposed hydrologic calculations for Phase 1a onsite areas and offsite areas that drain to the Phase 1a area site; include maps showing the drainage area boundaries and sizes in acres, topography and typical overland flow directions, and show all existing, interim, and proposed drainage infrastructure and their intended direction of flow.
 - d. Hydraulics. Provide hydraulic calculations to support the selection and sizing of ~~the~~ Phase 1a onsite drainage network, diversion facilities and Best Management Practices (BMPs) to control construction related impacts related to Phase 1a.
- **Watercourses and Critical Areas:** The DESCP shall show the location of all Phase 1a onsite and nearby watercourses including

washes, irrigation and drainage canals, and drainage ditches, and shall indicate the proximity of those features to the Phase 1a construction site.

- **Clearing and Grading:** The plan shall provide a delineation of all Phase 1a areas to be cleared of vegetation, areas to be preserved, and areas where vegetation would be cut to allow clear movement of the heliostats. The plan shall provide elevations, slopes, locations, and extent of all proposed grading in Phase 1a as shown by contours, cross-sections, cut/fill depths or other means. The locations of any disposal areas, fills, or other special features in Phase 1a shall also be shown. Existing and proposed topography tying in proposed contours with existing topography in Phase 1a shall be illustrated. The DESCOP shall include a statement of the quantities of material excavated ~~at the site in Phase 1a~~, whether such excavations or fill is temporary or permanent, and the amount of such material to be imported or exported or a statement explaining that there would be no clearing and/or grading conducted for each element of the project. Areas of no disturbance in Phase 1a shall be properly identified and delineated on the plan maps.
- **Soil Wind and Water Erosion Control:** The plan shall address exposed soil treatments to be used during construction ~~and operation of the proposed project~~ Phase 1a for both road and non-road surfaces including the specific identification of all chemical-based dust palliatives, soil bonding, and weighting agents appropriate for use at the proposed project site that would not cause adverse effects to vegetation. BMPs shall include measures designed to prevent wind and water erosion including application of chemical dust palliatives after rough grading to limit water use. All dust palliatives, soil binders, and weighting agents shall be approved by the CPM prior to use. With regard to erosion risk and stormwater runoff, the plans shall identify storm water management facilities, if any, that are necessary to ensure no adverse water quality impacts either onsite or offsite will result from construction of Phase 1a. ~~debris and detention basins shall be installed which are sized and located to intercept storm water flow from off-site areas as it enters the project site.~~ On-site roadways and other infrastructure in Phase 1a shall be designed and located to avoid existing and proposed flow paths to the extent feasible.
- **Project Schedule:** The DESCOP for Phase 1a shall identify on the topographic site map the location of the site-specific BMPs to be employed during ~~each phase of~~ Phase 1a construction (initial grading, project element construction, and final grading/stabilization). ~~Separate BMP implementation schedules shall be provided for each project element for each phase of~~

~~construction.~~ This scheduling should require the installation of ~~debris basins, detention/ infiltration basins, swales, and related~~ any necessary storm water management facilities, identified in the plans, before construction commences on Phase 1a ~~each phase.~~

- **Best Management Practices:** The DESCP for Phase 1a shall show the location, timing, and maintenance schedule of all erosion- and sediment-control BMPs to be used in Phase 1a prior to initial grading, during project element excavation and construction, during final grading/stabilization, and after construction. BMPs shall include measures designed to control dust and stabilize construction access roads and entrances. The maintenance schedule for Phase 1a shall include post-construction maintenance of treatment-control BMPs applied to disturbed areas of Phase 1a following construction.
- **Erosion Control Drawings:** The erosion-control drawings and narrative for Phase 1a shall be designed, stamped and sealed by a professional engineer or erosion-control specialist.
- **Comments:** The DESCP for Phase 1a shall include copies of recommendations, conditions, and provisions from the BNSF, County of San Bernardino, California Department of Fish and Game (CDFG), and Lahontan Regional Water Quality Control Board (RWQCB).
- **Monitoring Plan:** Monitoring activities for Phase 1a shall include routine measurement of the volume of accumulated sediment in the onsite drainage ditches, and storm water diversions and the requirements specified in **Soil and Water Appendix B, C, and D.**

Verification A: ~~The DESCP shall be consistent with the grading and drainage plan as required by Condition of Certification CIVIL-1, and relevant portions of the DESCP for~~ Phase 1a shall clearly show approval by the chief building official (CBO). In addition, the project owner shall do all of the following:

- a) No later than 30 days prior to start of site mobilization of Phase 1a, the project owner shall submit a copy of the DESCP to the County of San Bernardino, the RWQCB, BNSF and the CPM for review and comment. The CPM shall consider comments received within 15 days in approving the plan.
- b) During construction of Phase 1a, the project owner shall provide BNSF and the CPM an analysis in the monthly compliance report on the effectiveness of the drainage-, erosion- and sediment-control measures and the results of monitoring and maintenance activities.

- c) ~~Once operational, the project owner shall provide BNSF and the CPM information on the results of storm water BMP monitoring and maintenance activities in the annual compliance report.~~
- d) ~~The project owner shall provide BNSF and the CPM with two copies each of all monitoring or other reports required for compliance with San Bernardino County, CDFG, and RWQCB.~~

B. STORMWATER CONTROL/FLOOD PROTECTION DESIGN PLANS: The project owner shall submit two copies of the 30-percent, 60- percent and 90-percent design drawings for the grading and drainage facilities of Phase 1a to BNSF and the CPM for review and comment. The 30-percent, 60-percent and 90-percent design drawings for the grading and drainage facilities for Phase 1a shall be accompanied by a basis of design report to convey and support the design approach. To prepare the grading and drainage facilities drawings and accompanying basis of design report for Phase 1a, the project owner shall do the following:

1. At a minimum, the design report shall ensure Phase 1a ~~the project~~ meets the following performance standards:
 - a. ~~Project Construction of Phase 1a and operation~~ shall not alter the existing watershed boundaries.
 - b. ~~Project Construction of Phase 1a and operation~~ shall not adversely affect any railroad structures through changes in the volume or velocity of storm water runoff reaching the railroad structure.
 - c. No SunCatcher shall be placed in an area where approved adequate hydrologic studies indicate the water surface resulting from a 100 year, 24-hour storm could be more than 1.5 feet above the pre-storm ground surface.
 - d. Post development runoff from the Phase 1a project site shall be equal to or less than predevelopment runoff.
 - e. Post development sediment transport through the Phase 1a project site shall be equal to predevelopment sediment transport.
 - f. At a minimum, all storm water, hydraulic and drainage reports used for project development shall comply with the requirements of the San Bernardino County Drainage Manual (SBCDM).
2. Conduct an analysis of Phase 1a to quantify the design discharges and associated volumes of water, debris, and sediment associated with the 100-year storm at the apex of the fan under current watershed conditions.

3. Conduct a geomorphic and hydraulic analysis of Phase 1a to determine the maximum design storm that can be routed through Phase 1a the site utilizing existing fluvial washes that will not result in significant damage to proposed Phase 1a site-infrastructure.
4. Conduct a geomorphic and biologic analysis to determine the minimum design storm that can be routed through Phase 1a the site utilizing existing fluvial washes that will provide the necessary sediment load through Phase 1a the site and “downstream areas” to maintain existing sensitive habitat needs, as described in the *Geomorphic Assessment of Calico Solar Project Site*. This analysis must consider and address the need for fine sand to support the existing sensitive habitat and the potential episodic nature of the associated dune complex evolution that depends upon El Niño events (i.e., wet winters occurring approximately every three to seven years) delivering sediment to the lower fan and the accompanying La Niña events (i.e., dry winters occurring approximately every three to seven years) eroding and transporting fine sands to these dunes through wind action.
5. Determine the pass through design storm that can be routed through Phase 1a the site unimpeded to deliver the necessary sediment load through Phase 1a the site to maintain existing sensitive habitat needs in “downstream areas” and not result in significant damage to Phase 1a proposed site infrastructure.
6. ~~If it is determined that detention basins are needed, size, locate, and design each basin to allow the pass through design storm to move through the site unimpeded while capturing larger design storm flows and related sediment and debris to protect the proposed infrastructure.~~
7. ~~Convey design of each basin by showing supporting calculations and design drawings to convey the basin in plan view, crosssections, depth to spillway, amount of freeboard to top of basin, basin volume to spillway, description of sidewall slopes, method of providing pass through design storm and related sediment unimpeded, method of providing erosion protection of basin side walls, inlet design, outlet design, spillway design, spillway erosion control, combined outlet maximum flow, transition from outlet to existing downstream fluvial wash, tortoise fence location and design, maintenance of tortoise fence, maintenance of basin, maintenance of excess sediment in basin from larger flood flows.~~
8. ~~The project owner shall request comments from the Department of Water Resources Division of Safety of Dams (DSOD) for the plans and specifications for the construction of any dam(s) or reservoir(s) that are under DSOD jurisdiction prior to beginning construction, and forward all comments to BNSF and the CPM.~~

9. For all flood control basin dams, the project owner shall provide at a minimum:
- ~~specific locations of basins and dams on appropriate scale map,~~
 - ~~configuration of all basins and dams including basin-specific cross sections,~~
 - ~~a description of all materials designed to be used in the construction of the dams,~~
 - ~~footings designs,~~
 - ~~designs of cutoff walls,~~
 - ~~designs of keyways,~~
 - ~~description and design of drainage pass through methods,~~
 - ~~flow metering (ability to maintain maximum discharge to that of the maximum on-site flow design) technique and design,~~
 - ~~method of and design of debris deflection (i.e. trash racks) for each basin,~~
 - ~~emergency spillway design,~~
 - ~~pass through pipe outlet energy dissipation method and design, and~~
 - ~~basin inlet erosion protection.~~
10. In addition to the criteria discussed above, the basis of design report shall also follow the procedures outlined in the following documents as far as is applicable:
- a. ~~San Bernardino County Drainage Manual and 2007 Development Code (amended, March 25, 2010).~~
 - b. ~~Federal Emergency Management Agency Guidelines for Determining Flood Hazards on Alluvial Fans and Guidelines and Specifications for Flood Hazard Mapping Partners.~~
6. The project owner shall prepare a set of design specifications to supplement the 90-percent design drawings for Phase 1a. Plans, specifications, computations and other data shall be prepared by persons properly licensed by the State of California. If the 60-percent plans or 90-percent plans and specifications for Phase 1a do not comply with the appropriate Conditions of Certification, the necessary changes or revisions

to the plans shall be made by the project owner. If the CPM finds that the work described in the plans and specifications conform to the Conditions of Certifications in the Energy Commission Decision and other pertinent LORS, then the project owner shall submit two copies of the 100- percent set for CPM review and approval. All design drawings must be submitted on bound or stapled 24" x 36" size paper.

Verification B: Prior to site mobilization for Phase 1a, the project owner shall prepare preliminary (30-percent) grading and drainage facilities drawings and accompanying basis of design report for BNSF review and CPM review and approval. No later than 30 days after publication of the Energy Commission Decision, the 60-percent set of design drawings and accompanying basis of design report for Phase 1a shall be submitted to the BNSF for review and CPM for review and approval. The project owner shall submit the 90-percent design drawings and accompanying basis of design report for Phase 1a to BNSF for review and the CPM for review and approval after the person who originally drew the plan or their duly authorized agent addresses the CPM's 60-percent submittal comments and required changes. The 100-percent design drawings and specifications (construction documents) for Phase 1a shall be signed and sealed by a Registered Professional Engineer in the State of California and submitted as the final, approved set of construction documents prior to site mobilization for Phase 1a. Prior to initiation of site construction for Phase 1a, the 100-percent design drawings and specifications (construction documents) shall be submitted along with the final basis of design report signed and sealed by a Registered Professional Engineer and a Registered Professional Geologist in the State of California to the CPM for review and approval.

~~Thirty days prior to initiation of construction of any dams that would be considered under the jurisdiction of DSOD, the project owner shall receive approval for dam construction from the CPM based on comments the CPM has received from the DSOD for dam design adequacy.~~



**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)**

APPLICANT

Felicia Bellows
Vice President of Development
& Project Manager
Tessera Solar
4800 North Scottsdale Road,
#5500
Scottsdale, AZ 85251
felicia.bellows@tesseractosolar.com

CONSULTANT

Angela Leiba
AFC Project Manager
URS Corporation
1615 Murray Canyon Rd.,
#1000
San Diego, CA 92108
angela_leiba@URSCorp.com

APPLICANT'S COUNSEL

Allan J. Thompson
Attorney at Law
21 C Orinda Way #314
Orinda, CA 94563
allanori@comcast.net

Ella Foley Gannon, Partner
Bingham McCutchen, LLP
Three Embarcadero Center
San Francisco, CA 94111
ella.gannon@bingham.com

INTERESTED AGENCIES

California ISO
e-recipient@caiso.com

Jim Stobaugh
BLM – Nevada State Office
P.O. Box 12000
Reno, NV 89520
jim_stobaugh@blm.gov

Rich Rotte, Project Manager
Bureau of Land Management
Barstow Field Office
2601 Barstow Road
Barstow, CA 92311
richard_rotte@blm.gov

Becky Jones
California Department of
Fish & Game
36431 41st Street East
Palmdale, CA 93552
dfgpalm@adelphia.net

INTERVENORS

County of San Bernardino
Ruth E. Stringer,
County Counsel
Bart W. Brizzee,
Deputy County Counsel
385 N. Arrowhead Avenue,
4th Floor
San Bernardino, CA 92415-
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

Defenders of Wildlife
Joshua Basofin
1303 J Street, Suite 270
Sacramento, California 95814
e-mail service preferred
jbasofin@defenders.org

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

Basin and Range Watch
Laura Cunningham &
Kevin Emmerich
P.O. Box 70
Beatty, NV 89003
atomicoadranch@netzero.net

INTERVENORS CONT.

Patrick C. Jackson
600 N. Darwood Avenue
San Dimas, CA 91773
e-mail service preferred
ochsjack@earthlink.net

Gloria D. Smith, Senior Attorney
***Travis Ritchie**
Sierra Club
85 Second Street, Second floor
San Francisco, CA 94105
gloria.smith@sierraclub.org
travis.ritchie@sierraclub.org

Newberry Community
Service District
Wayne W. Weierbach
P.O. Box 206
Newberry Springs, CA 92365
newberryCSD@gmail.com

Cynthia Lea Burch
Steven A. Lamb
Anne Alexander
Katten Muchin Rosenman LLP
2029 Century Park East,
Ste. 2700
Los Angeles, CA 90067-3012
Cynthia.burch@kattenlaw.com
Steven.lamb@kattenlaw.com
Anne.alexander@kattenlaw.com

ENERGY COMMISSION

ANTHONY EGGERT
Commissioner and Presiding Member
aeggert@energy.state.ca.us

JEFFREY D. BYRON
Commissioner and Associate Member
jbyron@energy.state.ca.us

Paul Kramer
Hearing Officer
pkramer@energy.state.ca.us

Lorraine White, Adviser to
Commissioner Eggert
e-mail service preferred
lwhite@energy.state.ca.us

Kristy Chew, Adviser to
Commissioner Byron
e-mail service preferred
kchew@energy.state.ca.us

Caryn Holmes
Staff Counsel
cholmes@energy.state.ca.us

Steve Adams
Co-Staff Counsel
sadams@energy.state.ca.us

Christopher Meyer
Project Manager
cmeyer@energy.state.ca.us

Jennifer Jennings
Public Adviser
e-mail service preferred
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Darin Neufeld, declare that on October 25, 2010, I served and filed copies of the attached Applicant's Suggested Revisions to Certain Soil and Water Conditions. 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

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