



April 30, 2010

DOCKET
08-AFC-13

DATE	APR 30 2010
RECD.	APR 30 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 Federal NO₂ 1-Hour Standard Modeling Analysis

Dear Mr. Meyer and Mr. Stobaugh,

Tessera Solar hereby submits the Applicant's memo describing the modeling analysis completed for the Federal NO₂ 1-hour Standard for the Calico Solar Project. Operational files have been transmitted to Will Walters at the California Energy Commission. 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



Memorandum

Date: April 30, 2010

To: Will Walters, CEC

From: Julie Mitchell/Sam Wang

CC: Sam Oktay, MDAQMD, Felicia Bellows, Tessera Solar

Subject: **Modeling Analysis for Federal NO₂ 1-hour Standard for Calico Solar**

On April 12, 2010, the new federal NO₂ 1-hour ambient air quality standard became effective. The concentration level of the new 1-hour standard is 100 ppb (188.68 µg/m³) and compliance with this level will be based on the 3-year average of the annual 98th percentile of the daily maximum 1-hour concentrations.

On February 25, 2010, EPA provided guidance on how to use the AERMOD model to show compliance with the new standard. Unfortunately EPA does not provide guidance on how to incorporate the background NO₂ concentrations with the modeling. On April 12, 2010, SJVAPCD published draft guidelines for modeling procedures to address the new federal 1-hour standard. These guidelines which have been approved by USEPA, describe a tiered approach for incorporating background air quality data with the AERMOD modeling results. Because the SJVAPCD guidelines reasonably account for the contributions of both modeled NO₂ sources and background NO₂ levels in a manner that is consistent with the statistical form of the new federal NO₂ 1-hour standard, this method has been selected for evaluating the compliance of the Calico Solar project with the standard.

To determine the 3-year average of the annual 98th percentile of the daily maximum 1-hour concentrations for the background concentration, EPA and SJVAPCD guidance was followed. Data from 2006-2008 from the Barstow monitoring station meets the EPA requirement for completeness for each of the three years, as outlined in the SJVAPCD guidelines. From this data set, the 3-year average of the 98th percentile of daily maximum 1-hour NO₂ concentrations was determined to be 68.67 ppb or 129.56 µg/m³, and this value was selected to represent the background concentration for purposes of this analysis.

In the Applicant's Response to CEC and BLM Data Requests (Set 1, Parts 1), the modeling was conducted for both construction and operations. The peak 1-hour NO₂ concentration from operational activities was predicted to be 47.75 µg/m³. This value was based on running one year (2005) meteorological and ozone data, which was expected to be the most representative year and was an approved method to use by MDAQMD and CEC. However, this one year modeling approach doesn't comply with the new EPA and SJVAPCD guidance for the federal 1 hour NO₂ standard which requires 5 years of meteorological data to be used.

Therefore, the operational modeling was conducted by using 5 years (2001-2005) of meteorological and ozone data as described in this memo. The peak 1-hour NO₂ concentration from operational activities was predicted to be 51.76 µg/m³. This value plus the 98th percentile background of 129.56 µg/m³ adds to 181.32 µg/m³, which is below the

new standard of $188.68 \mu\text{g}/\text{m}^3$. Therefore, operational impacts from the Calico Solar project are predicted to be in compliance with the new federal NO_2 1-hour standard. This analysis constitutes a SJVAPCD Tier I modeling analysis. Thus operational emissions from the Calico Solar project do not cause a violation of the federal 1-hour NO_2 standard. Operational modeling files will accompany this memo.



**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 2/8/10)**

APPLICANT

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

Camille Champion
Project Manager
Tessera Solar
4800 North Scottsdale Road,
Suite 5500
Scottsdale, AZ 85251
camille.champion@tesseractosolar.com

CONSULTANT

Angela Leiba
AFC Project Manager
URS Corporation
1615 Murray Canyon Rd.,
Ste. 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

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

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

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

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

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

Kristy Chew, Adviser to
Commissioner Byron
kchew@energy.state.ca.us

Caryn Holmes, Staff Counsel
1516 9th Street, MS-14
Sacramento, California 95814
cholmes@energy.state.ca.us

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

*Jennifer Jennings
Public Adviser
publicadviser@energy.state.ca.us

DECLARATION OF SERVICE

I, Corinne Lytle, declare that on April 30, 2010, I served and filed copies of the attached Applicant's Submittal of Federal NO2 1-Hour Standard Modeling Analysis. 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 [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;

 X by personal delivery or by depositing in the United States mail at _____ with first-class postage thereon fully prepaid and addressed as provided on the Proof of Service list above 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.

Original signed by

Corinne Lytle