

# Memorandum

Date: March 9, 2009  
Telephone: (916) 651-0966

To: Karen Douglas, Chairman and Presiding Member  
Jeffrey D. Byron, Commissioner and Associate Member

<b>DOCKET</b>	
<b>08-AFC-2</b>	
DATE	Mar 10 2009
RECD.	Mar 10 2009

From: California Energy Commission – Eric K. Solorio  
1516 Ninth Street Project Manager  
Sacramento, CA 95814-5512

Subject: **Beacon Solar Energy Project (08-AFC-2) STATUS REPORT #6**

Pursuant to the Committee Scheduling Order dated June 18, 2008, the following is staff's Status Report #6 for the proposed Beacon Solar Energy Project (BSEP).

## Current Issues

Staff continues to analyze the proposed project and to work with applicant, other government agencies, and all interested stakeholders to resolve outstanding issues. We are committed to work cooperatively with the applicant to resolve the issues in a timely manner. Staff respectfully disagrees with the applicant's assertion that "...there is no appreciable reason for such continuing and chronic delays" (BSEP, Status Report #4) to the project schedule. Staff notes that one issue, use of potable water for power plant cooling, was highlighted in the Committee's scheduling order because "The Committee is interested in alternative cooling technologies and alternative cooling water sources that may be used at the plant to reduce the projects need for groundwater."

Staff has spent a considerable amount of time dealing with the following issues of the BSEP 1.) Conflicting data presented in the AFC and data responses, 2.) Apparently incorrect assumptions used in engineering and water modeling, and 3.) Incomplete and/or late responses to staff's data requests. The particular items are listed as follows:

### Conflicting data provided by applicant

- AFC, Appendix K, contains four letters from BSEP consultants to various municipalities stating that BSEP expects to use 2,100 acre/ft per year of (potable) water. This quantity is 30 percent more than the proposed water consumption (1,600 acre/ft, annually) described in the various resource discussions in the AFC, including impacts to Soil & Water Resources.
- Applicant's groundwater model, as presented in the AFC, does not accurately portray existing groundwater conditions.
- AFC Table 5.16-6 reflected waste discharges of 2,500 lbs an hour from a mechanized, zero-liquid waste discharge system (ZLD) which was inconsistent with applicant's intent not to use a ZLD system.
- AFC Site Plan (Figure 2-4) shows a location covering 25 acres designated for evaporation ponds which is different than the location depicted on other drawings. Applicant later stated Figure 2-4 is in error.
- Applicant's depiction of site vicinity groundwater occurrence conditions has been difficult to interpret. For example, they provided analysis figures showing "cones of depression"

- Applicant's depiction of site vicinity groundwater occurrence conditions has been difficult to interpret. For example, they provided analysis figures showing "cones of depression" caused by "aquifer testing" which extended past the faults they described in text as barriers to flow. Their analysis then stated that no wells were affected by the drawdown on the east side of the fault, yet their figure showed drawdown in that area. These findings are inconsistent and contradict the figure/interpretation, indicating there were no wells from which to measure water levels on that side of the fault.
- AFC presents two different temperatures (54 and 75 degrees) that heat transfer fluid will be maintained. Applicant has recently submitted information the temperature will be maintained at 100 degrees. The temperature is maintained by combusting natural gas which creates air emissions, therefore this information is critical to staff's CEQA analysis.
- AFC p. 1-1 states "100% of power generated by solar thermal technology...no natural gas combustion to generate electricity", yet p. 2-7 discusses the benefits of using natural gas and states that such use "...yields an additional 4,500 MW/h per year."
- Applicant submitted economic data to support their various "economic infeasibility" arguments but the data was misrepresented in omitting 17 percent of the revenue stream and other critical value components. Staff received a revised submittal on March 2, 2009.
- Applicant identified multiple other foreseeable projects as the basis for ruling out using alternative sources of municipal waste water but did not identify such projects in its cumulative impacts analysis or at least identify the basis for excluding the projects.

#### Deficient project data and neglected aspects of the project

- BSEP proposes to reroute an existing water of the state; a drainage feature which is 2 miles long. Applicant's civil engineering of their proposed diversion channel is inadequate in many respects: intercept point, levee designs, bank stabilization, slope, turning radius, outflow, and others. Staff commissioned (at Energy Commission expense) a civil engineering analysis to evaluate the design of the proposed diversion channel and then worked with applicant to correct applicant's errors.
- The project site is bisected by a mapped 100 year flood zone (floodplain). Related to applicant's proposal to relocate the drainage feature, staff informed applicant of the need to engage FEMA, submit an application for a Conditional Letter of Map Revision (CLOMR) and consult with Kern County to create a public maintenance district. Prior to staff informing applicant of the need to address the various related floodplain issues, applicant had not consulted with FEMA nor submitted an application to alter the floodplain.
- Since bringing the floodplain issues to applicant's attention, applicant has recently stated their intention to change the project elevations (cut/fill excavations) to defeat the definition of a levee in order to avoid the need for a "public" maintenance district. Applicant has not defined the scope of the additional project area they intend to elevate or source of the needed fill dirt. Aside from the engineering design of the levees (project elevations) being undefined, the additional site excavations will also trigger a need for more storm water retention capacity which applicant has yet to address.
- Applicant provided three different hydrographs done at different time scales which rendered them unusable for comparison and analysis.

- Applicant has not provided information regarding the contemporary 1000 total dissolved solids level isopleths. In response to staff's requests for current data, applicant provided staff with data that is 34 years old. Applicant was advised that the contemporary data could be generated with relatively inexpensive hydro-punch sampling but applicant has not attempted to do so.
- Applicant has not provided staff with verification of onsite telecommunications capacity nor information regarding the need for off-site improvements related to telecommunications infrastructure. All off-site improvements must be considered and analyzed for environmental impacts under the California Environmental Quality Act (CEQA).
- Applicant did not provide any information to accurately identify any alternative sites, i.e. parcel numbers, addresses or cross streets. The AFC provided broad discussions and general evaluation of six alternative areas of which three were identified as "not available" for lease or sale. Less than one month ago applicant provided regional maps to staff showing the "general area" applicant considered but the maps did not identify a particular alternative site considered in the analysis.
- The AFC did not contain an analysis of alternative site configurations that could avoid impacts to state waters (the drainage feature) – which CEQA requires, and which the Department of Fish and Game requested in a formal comment letter.
- Applicant has not provided staff with information addressing the permitting authority of the California Public Utilities Commission related to necessary improvements to the railroad crossing.
- Prior to March 3, 2009, applicant had not provided the legal description of the various easements and rights-of-way on the property to demonstrate the legal basis for applicant to remove the many rights-of-way reflected on Kern County's general plan map which directly relate to circulation, connectivity and public access. After reviewing the boundary survey maps submitted by applicant it is apparent there are unresolved issues related to public access and ownership of the railroad crossing.
- Applicant has not provided a secondary point of ingress and egress related to fire/life safety vehicles.
- Applicant has not provided any information regarding site control of the properties through which applicant proposes to install a 17.5-mile-long natural gas line.
- The AFC did not contain an analysis regarding the use of the lowest quality water supply reasonably available (brackish water near Koehn Lake).
- The AFC provided an incomplete analysis of alternative cooling technologies by simply identifying a cost of dry cooling without a comparison to related revenues. Such a comparison is necessary when the AFC argues for "economic infeasibility."
- Applicant has not provided information regarding their plan to reduce sediment loads from concentrated runoff before it is discharged to the rerouted desert wash channel.
- Staff has determined that the runoff detention basins are not adequately designed to capture site runoff.
- Applicant has not provided a plan for collecting, treating and disposing of storm water that has been in contact with the power block or other mechanical equipment.
- As proposed, the evaporation ponds for waste water disposal of the anticipated waste stream are undersized by nearly 80 percent.

Karen Douglas, Commissioner and Presiding Member  
Jeffrey D. Byron, Commissioner and Associate Member  
March 5, 2009  
Page 4

Staff is working to reconcile inconsistencies and deficiencies in the AFC data which have given rise to new issues such as engineering design criteria used for the proposed rerouted desert wash, flood plain mapping, circulation around the project, access for emergency vehicles, and engineering assumptions relied upon for the design of the proposed evaporation ponds. Staff continues to evaluate the supplemental data responses, recently submitted by applicant, in order to address these issues.

Staff requests additional time to reconcile the issues described above in order to finalize the preliminary staff report, then format, print and distribute the report to the general public. As a result, staff believes it is necessary to move the PSA publication as reflected on the proposed schedule.

*The proposed schedule is on the following page.....*

**Staff's Proposed Schedule**

Staff is working towards the following schedule:

**STAFF'S PROPOSED SCHEDULE  
 BEACON SOLAR ENERGY PROJECT (08-AFC-2)**

<b>DATE</b>	<b>EVENT</b>
3/14/08	Applicant files Application for Certification (AFC)
5/7/08	Decision on Data Adequacy at the Business Meeting
6/11/08	Informational Hearing and Site Visit
6/17/08	Staff files 1st Round Data Requests
7/17/08	Applicant provides Data Responses (round 1)
7/21/08	Data Response and Issue Resolution Workshop (round 1)
8/8/08	Status Report #1
8/15/08	Staff files Data Requests (round 2, if necessary)
9/3/08	Local, state and federal agency draft determinations, including PDOC from KCAPCD
9/15/08	Applicant provides Data Responses (round 2, if necessary)
9/25/08	Data Response and Issue Resolution Workshop (round 2)
9/30/08	Staff files Status Report #2
11/06/08	Data Response and Issue Resolution Workshop (round 2)
11/21/08	Staff files Status Report #3
12/29/08	Staff files Status Report #4
2/11/09	Staff files Status Report #5
3/09/09	Staff files Status Report #6
4/01/09	Preliminary Staff Assessment (PSA) filed
4/14/09	PSA workshop
4/14/09	Local, state and federal agency final determinations, including FDOC from KCAPCD
5/18/09	Final Staff Assessment filed
6/01/09	FSA workshop
TBD	Pre-Hearing Conference

Proof of Service List  
 Docket



**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 *BEACON SOLAR ENERGY*  
*PROJECT*

Docket No. 08-AFC-2

**PROOF OF SERVICE**

*(Revised 2/9/09)*

**APPLICANT**

Scott Busa  
Kenneth Stein, J.D.,  
Meg Russell  
Duane McCloud  
Guillermo Narvaez, P.E.  
Nextera Energy Resources, LLC  
700 Universe Blvd.  
Juno Beach, FL 33408  
[Scott.Busa@Nexteraenergy.com](mailto:Scott.Busa@Nexteraenergy.com)  
[Kenneth.Stein@Nexteraenergy.com](mailto:Kenneth.Stein@Nexteraenergy.com)  
[Meg.Russell@Nexteraenergy.com](mailto:Meg.Russell@Nexteraenergy.com)  
[Duane.McCloud@Nexteraenergy.com](mailto:Duane.McCloud@Nexteraenergy.com)  
[Guillermo.Narvaez@Nexteraenergy.com](mailto:Guillermo.Narvaez@Nexteraenergy.com)

**APPLICANT'S CONSULTANTS**

Sara Head, Vice President  
AECOM Environment  
1220 Avenida Acaso  
Camarillo, CA 93012  
[sara.head@aecom.com](mailto:sara.head@aecom.com)

Bill Pietrucha, Project Manager  
Jared Foster, P.E.,  
Mechanical Engineer  
Worley Parsons  
2330 E. Bidwell Street, Suite 150  
Folsom, CA 95630  
[Bill.Pietrucha@worleyparsons.com](mailto:Bill.Pietrucha@worleyparsons.com)  
[Jared.Foster@worleyparsons.com](mailto:Jared.Foster@worleyparsons.com)

**COUNSEL FOR APPLICANT**

Jane Luckhardt, Attorney at Law  
Downey Brand Attorneys LLP  
621 Capital Mall, 18<sup>th</sup> Floor  
Sacramento, CA 95814  
[jluckhardt@downeybrand.com](mailto:jluckhardt@downeybrand.com)

**INTERESTED AGENCIES**

California ISO  
[e-recipient@caiso.com](mailto:e-recipient@caiso.com)

**INTERVENORS**

\*Tanya A. Gulesserian  
Marc D. Joseph  
Adams Broadwell  
Joseph & Cardozo  
601 Gateway Boulevard,  
Suite 1000  
South San Francisco, CA 94080  
E-MAILED PREFERRED  
[tgulesserian@adamsbroadwell.com](mailto:tgulesserian@adamsbroadwell.com)

**ENERGY COMMISSION**

KAREN DOUGLAS  
Chairman and Presiding Member  
[KLdougl@energy.state.ca.us](mailto:KLdougl@energy.state.ca.us)

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

Kenneth Celli  
Hearing Officer  
[kcelli@energy.state.ca.us](mailto:kcelli@energy.state.ca.us)

Eric K. Solorio  
Project Manager  
[esolorio@energy.state.ca.us](mailto:esolorio@energy.state.ca.us)

Jared Babula  
Staff Counsel  
[jbabula@energy.state.ca.us](mailto:jbabula@energy.state.ca.us)

Public Adviser's Office  
[publicadviser@energy.state.ca.us](mailto:publicadviser@energy.state.ca.us)

**DECLARATION OF SERVICE**

I, Maria Santourdjian, declare that on March 10, 2009, I served and filed copies of the attached Beacon Solar Energy Project (08-AFC-2) Status Report #6. 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/beacon](http://www.energy.ca.gov/sitingcases/beacon)]**. The document has 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 or by depositing in the United States mail at Sacramento, CA 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:**

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-4

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.

Original Signature in Dockets  
Maria Santourdjian