

## CALIFORNIA ENERGY COMMISSION

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March 16, 2009

Mr. Alan J. De Salvio  
Supervising Air Quality Engineer  
Antelope Valley Air Quality Management District  
43301 Division St., Suite 206  
Lancaster, California 93535-4649

**DOCKET****08-AFC-9**DATE MAR 16 2009RECD. MAR 16 2009**Re: Comments on Preliminary Determination of Compliance (PDOC)  
Palmdale Hybrid Power Project (08-AFC-9)**

Dear Mr. De Salvio,

Energy Commission staff has reviewed the Antelope Valley Air Quality Management District (AVAQMD) PDOC for the Palmdale Hybrid Power Project and has the following comments for your consideration for inclusion in the Final Determination of Compliance (FDOC).

**Comments on PDOC**Emission Reduction Credits

The Energy Commission requests additional information be included in the FDOC to better understand how the project would comply with AVAQMD Rules and Regulation pertaining to emission offset requirements. The applicant is proposing to obtain emission offsets from a variety of sources and emission control measures that are not clearly defined in the PDOC.

In performing its CEQA analysis, staff's position is that all nonattainment pollutants and their precursors need to be mitigated through emission reductions at a minimum ratio of 1:1, with larger ratios required for inter-pollutant, inter-basin and distant ERC sources. The Mojave Desert Air Basin (MDAB) in the area of the project site is classified as nonattainment for the state ozone and PM10 standards and federal ozone standard. Without proper emission reduction mitigation, this project could contribute to existing violations of the state and federal ambient air quality standards.

The applicant originally had proposed to use SCAQMD Rule 1309.1 Priority Reserve to obtain offsets (VOCs for their NOx liability) for the PHPP. Due to a court decision in 2008, emission offsets from the SCAQMD Rule 1309.1 Priority Reserve are not currently available for PHPP emission offsets. The PHPP is currently considering obtaining Emission Reduction Credits (ERCs) from the San Joaquin Valley Air Pollution Control District (SJVAPCD) or from sources in the San Joaquin Valley Air Basin (SJVAB).

Ozone Precursor (NOx and VOC) ERCs from Outside the MDAB

Obtaining ERCs from the SJVAB will place additional requirements on the AVAQMD that would not be necessary for ERCs obtained within the MDAB. Specifically,

AVAQMD Rule 1305 requires that ERCs obtained from another air district comply with the requirements of Health & Safety Code §40709.6, which states:

- (a) Increases in emissions of air pollutants at a stationary source located in a district may be offset by emission reductions credited to a stationary source located in another district if both stationary sources are located in the same air basin or, if not located in the same air basin, if both of the following requirements are met:
  - (1) The stationary source to which the emission reductions are credited is located in an upwind district that is classified as being in a worse nonattainment status than the downwind district pursuant to Chapter 10 (commencing with Section §40910).
  - (2) The stationary source at which there are emission increases to be offset is located in a downwind district that is overwhelmingly impacted by emissions transported from the upwind district, as determined by the state board pursuant to Section §39610.
- (b) The district, in which the stationary source to which emission reductions are credited is located, shall determine the type and quantity of the emission reductions to be credited.
- (c) The district, in which the stationary source at which there are emission increases to be offset is located, shall do both of the following:
  - (1) Determine the impact of those emission reductions in mitigation of the emission increases in the same manner and to the same extent as the district would do so for fully credited emission reductions from sources located within its boundaries.
  - (2) Adopt a rule or regulation to discount the emission reductions credited to the stationary source in the other district. The discount shall not be less than the emission reduction for offsets from comparable sources located within the district boundaries.
- (d) Any offset credited pursuant to subdivision (a) shall be approved by a resolution adopted by the governing board of the upwind district and the governing board of the downwind district, after taking into consideration the impact of the offset on air quality, public health, and the regional economy. Each district governing board may delegate to its air pollution control officer the board's authority to approve offsets credited pursuant to subdivision (a).

ERCs from SJVAPCD would meet the requirements of §40709.6 in terms of ERC/Source upwind and downwind designations, as required in §40709.6(a). However, §40709.6(c) require additional rulemaking, as well as AVAQMD and SJVAPCD board approval. The PDOC does not provide any information on how ERCs obtained from the

SJVAPCD will meet the requirements of §40709.6 (and thus Rule 1305), and if the SJVAPCD is amenable to providing ERCs for the PHPP.

The FDOC will also need to provide information on CARB consultation and USEPA approval of the proposed inter-basin offset ratios pursuant to AVAQMD Rule 1305(B).

#### PM10 ERCs from Road Paving

The Applicant proposes to obtain PM10 ERCs through a new AVAQMD Rule that would be modeled on the Mojave Desert Air Quality Management District (MDAQMD) Rule 1406 (Proposed Rule 1309.5). Energy Commission staff has two concerns with this approach; first, the rulemaking has not been completed and potentially may not be completed, and second, the specifics of the ERCs (what will be paved) are not currently provided, so staff cannot complete a full analysis of the effectiveness of the ERCs as mitigation.

Neither the PDOC nor AVAQMD Rule Development Calendar provide any information on proposed Rule 1309.5

(<http://www.avaqmd.ca.gov/RulesPlans/AVRuleCalendar2008.pdf>). Compliance with AVAQMD Rule 1305 cannot be determined in the absence of approval of proposed Rule 1309.5, and a detailed analysis of how the Applicant would comply with this new rule. The FDOC should identify the specific roads in the vicinity of the PHPP that will be used to generate the PM10 ERCs, and provide all appropriate calculations including vehicle miles traveled via traffic counts and silt content analysis used to quantify the emission reductions that are expected to be generated. Documentation of the equivalent PM2.5 emission reductions should be provided as well.

Finally, staff is concerned that the project may have increased fugitive dust emissions resulting from the maintenance of the solar facilities, which would create unpaved road fugitive dust emissions, that should be included with the stationary source PM10 emission balance against any road paving ERC mitigation balance.

#### Due Diligence in Acquiring Banked ERCs from the MDAB

Staff notes that there are ERCs available within the MDAB banked from emission reductions in the AVAQMD, as well as, the Kern County Air Pollution Control District and Mojave Desert Air Pollution Control District. Staff believes that before accepting inter-basin ERCs or ERCs from emission reduction banking programs do not currently exist, the Applicant should be required to show due diligence in their attempt to acquire existing banked ERCs from within the air basin. To that end, staff would appreciate a description of that due diligence in the FDOC.

#### Rule 1305 Compliance Demonstration

Staff requests that a condition be added to the FDOC that identifies the specific ERCs that will be used to offset the project's emissions. Compliance with Rule 1305 cannot be determined until the AVAQMD develops new rules covering PM10 offsets (proposed Rule 1309.5), and additional rulemaking is completed for discounting emission reductions credited to the stationary source ERCs from the SJVAPCD. In addition, inter-

pollutant and inter-basin trading ratios will need to be developed in consultation with CARB and approved by the USEPA. The FDOC should provide clear documentation on the CARB consultation and USEPA approval process.

*Incorrect Auxiliary Boiler Size and Emissions*

The PDOC contains several errors related to the Auxiliary Boiler specifications and estimated emissions that need to be corrected in the FDOC. The PDOC lists the size of the Auxiliary Boiler at 35 MMBtu/hr (see PDOC Page 2), while the application lists the boiler at 100 MMBtu/hr (note that the Applicant has since increased this to 110 MMBtu/hr). This error is reflected in emission estimates for the boiler, total facility emissions, and project offset liability. Also note that since the Applicant has increased the Auxiliary Boiler to 110 MMBtu/hr, NSPS Subpart Db (>100 MMBtu/hr) will apply to the project instead of Subpart Dc.

*Changes in Applicant's Project Description*

The Applicant has made numerous modifications in their proposed project description (Supplemental Responses to CEC Data Requests Set 1, dated March 2, 2009) that will impact the AVAQMD's PDOC analysis. These modifications include:

- Changes to the conceptual site layout include slight changes to the primary site access road, addition of a second (emergency) access road, relocation of the gas metering station, adjustment to the locations of the detention basins, a decrease in the acres of solar field and a slight increase in the number of acres (5 acres) for the power plant site overall.
- Changes in the power block plot plan and sources include slight relocation of the combustion turbines, increase in the size of the Auxiliary Boiler from 100 MMBtu/hr to 110 MMBtu/hr including increasing the stack height (from 30 feet to 60 feet), decrease in the stack heights (from 30 feet to 16 feet) of the emergency diesel generator and fire water pump engine, and relocation of the ammonia storage tank.

An increase in the size of the Auxiliary Boiler, and associated increase in emissions, in combination with the decreased stack heights for the emergency diesel generator and fire water pump engine could result in higher air quality impacts than previously demonstrated by the Applicant. The Applicant's air quality impact analysis (AQIA) showed that one-hour nitrogen dioxide (NO<sub>2</sub>) impacts were only 4.6 µg/m<sup>3</sup> (98.6% of the standard) under the State one-hour NO<sub>2</sub> standard (see PDOC Table 4). Changes in equipment layout could have an impact on modeled operational air quality impacts. Therefore, potential changes in project emissions, stack parameters and facility layout have the potential to result in a violation of the State one-hour NO<sub>2</sub> standard.

Given the changes in the site layout, project emissions and stack parameters, staff recommends that the AVAQMD require the Applicant to submit a revised AQIA to allow the District to reevaluate their determination of compliance for the PHPP.

### **Staff Assessment Workshop**

The District may be requested to attend the Staff Assessment workshop, depending on the comments received by intervenors and the public. Energy Commission staff will provide District staff the time and exact location of the workshop after it has been determined and make a specific request for attendance if considered necessary.

If you have any questions, please contact Keith Golden of my staff at (916) 653-1643. Thank you for the opportunity to comment on the Palmdale Hybrid Power Project Preliminary Determination of Compliance.

Sincerely,

DALE EDWARDS, Manager  
Environmental Protection Office  
Siting, Transmission and Environmental  
Protection Division

cc: Docket



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**APPLICATION FOR CERTIFICATION  
For the *PALMDALE HYBRID  
POWER PROJECT***

**Docket No. 08-AFC-9**

**PROOF OF SERVICE**  
(Revised 2/27/2009)

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### DECLARATION OF SERVICE

I, Teraja` Golston, declare that on March 17, 2009, I served and filed copies of the attached (08-AFC-9) Palmdale Hybrid CEC Comments on Preliminary Determination of Compliance. 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: **[<http://www.energy.ca.gov/sitingcases/palmdale/index.html>]**. 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:**

  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 Sacramento, California 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**

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I declare under penalty of perjury that the foregoing is true and correct.

Original Signature in Dockets

Teraja` Golston