CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

DOCKET
08-AFC-11
DATE 05/07/09
RECD. 05/07/09

May 7, 2009

Mr. Andrew Welch, Vice President
Competitive Power Ventures, Inc.
8403 Colesville Road, Suite 915
Silver Spring, MD 20910

RE: CPV VACA STATION PROJECT (08-AFC-11)
DATA REQUEST SET 2 (#s 54-67)

Dear Mr. Welch:

Pursuant to Title 20, California Code of Regulations, Section 1716, the California Energy Commission staff seeks the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

This set of data requests (#s 54-67) is being made in the areas of noise and vibration (#s 54-57), transmission system engineering (#s 58-60), visual resources (# 61), and visible plume (#s 62-67). If possible, we would appreciate written responses to the enclosed data requests on or before June 7, 2009, or at such later date as may be mutually agreeable.

If you are unable to provide the specific information requested, need additional time, or object to providing requested/specific information, please send a written notice to both Commissioner Jeffrey Byron, Presiding Committee Member for the CPV Vaca Station (CPVVS) project, and to me, within 20 days of receipt of this letter. If sent, this notification must contain the reason(s) for not providing the information, the need for additional time, and the grounds for any objections (see Title 20, California Code of Regulations, section 1716 (f)).

If you have any questions, please call me at (916) 654-5191 or email me at rjones@energy.state.ca.us.

Sincerely,

Rod Jones
Project Manager

Enclosure
cc: Docket (08-AFC-11) and POS

PROOF OF SERVICE (REVISED 2/18/09) FILED WITH
ORIGINAL MAILED FROM SACRAMENTO ON 5/7/09
MS

Technical Area: Noise and Vibration
Author: Shahab Khoshmashrab

BACKGROUND

The ambient noise survey described in AFC Section 5.7.2.2 was conducted at only one location, the southern boundary of the project site, and not at the three residential receptors identified in AFC Section 5.7.2.1. The town of Elmira, a residential community, is located approximately ½-mile northwest of the project site. This community is not identified as a noise-sensitive receptor in the AFC. To adequately evaluate the project's noise impacts at all of the project's noise-sensitive receptors, staff needs the following information.

DATA REQUEST

54. Please conduct an ambient noise survey at each of the three residential receptors identified in AFC Section 5.7.2.1 as being located approximately 800 feet to the southeast, 1,900 feet to the north, and 1,600 feet to the east of the project site, near the town of Elmira. These surveys should be conducted during calm weather conditions.

    a) The above noise surveys should include measurements of the ambient noise levels at these locations continuously from 10:00 p.m. to 7:00 a.m.

    b) These surveys should also include measurements of the ambient noise at these locations during the daytime hours for a period of at least one hour in the late morning and again for a period of at least one hour in the afternoon.

55. Please provide the resultant noise levels in terms of L_{eq}, L_{min}, L_{max}, $L_{10,}$ L_{50}, and L_{90}.

BACKGROUND

AFC Section 5.7.3.3.3 evaluates the project's operational noise impact at only one of the project's noise-sensitive receptors, the residence located approximately 800 feet to the southeast of the project site. The AFC does not evaluate the project's operational noise impacts at all of the other most noise-sensitive receptors.

DATA REQUEST

56. Please evaluate the noise impacts of project operation at the receptors identified in AFC Section 5.7.2.1 as being located 1,900 feet to the north and 1,600 feet to the east of the project site, near the town of Elmira. Please provide the results, including the resultant predicted project noise levels at these locations. This evaluation should consider the typical project area ambient conditions, such as

the average annual wind speed, wind direction(s), air temperature, and relative humidity.

BACKGROUND

The cumulative impacts analysis described in AFC Section 5.7.4 states that because of the distant locations of the foreseeable projects (i.e., residential developments, etc.) in the area in relation to the CPV Vaca Station project site, it is unlikely that the noise from CPV Vaca Station would combine with the noise from these projects. AFC Section 5.7 (Noise), however, does not specify the distances between CPV Vaca Station and these projects. To adequately evaluate the project's cumulative noise impacts, staff needs the following information.

DATA REQUEST

57. Please describe the distances between these foreseeable projects and the CPV Vaca Station project site.

Technical Area: Transmission System Engineering
Author: Laiping Ng

BACKGROUND

Page 2 of Section 3.0, Transmission System Engineering (1), of the supplement submittal indicated that: "The transmission line will consist of double 1590 kcmil ACSR (Falcon) or, optionally, single 1780 kcmil ACSS (Chukar / ACSS) conductor(s) per phase".

DATA REQUEST

58. Please resubmit Figure DA 3.0-1 showing the double circuit generator tie-lines with the associated conductor type, the current carrying capacity of the conductors, the ratings of the breakers and the disconnect switches.

59. Please submit an additional figure (similar to Figure DA 3.0-1), showing the single circuit generator tie-line with the associated conductor type, the current carrying capacity of the conductor, the ratings of the breakers and the disconnect switches.

60. Please provide all of the breakers and disconnect switches ratings for the above new figures.

Technical Area: Visual Resources
Author: William Kanemoto, William Walters

BACKGROUND

The building size data provided in Table 5.13-2 appears to have significant errors that may need to be corrected. Comparison with the site plan indicates that the cooling tower and water treatment building size data are not close to the real dimensions. Staff needs this data for several purposes including conducting the visual resources analysis, g the visible plume analysis, and determining whether the building downwash inputs in the air quality modeling files are correct. Therefore, staff requires that the data provided in Table 5.13-2 be corrected to reflect an accurate estimate of the building dimensions.

DATA REQUEST

61. Please provide a corrected version of Table 5.13-2 that reflect the current estimates of the building dimensions as shown in the site plot plan, and as necessary correct the site plot plan if errors are found in the depiction of the building dimensions.

Technical Area: Visual Resources – Visible Plume
Author: William Walters

BACKGROUND

The cooling tower recirculating water flow rates are substantially different for the GE and Siemens gas turbine cases (approximately 25 percent higher for the Siemens turbine cases) and the peak heat rejection requirements are also different (approximately 5 percent higher for the Siemens turbine cases). Given that CPVV is still deciding on which combustion turbine to use for the project, staff needs to understand how the differences between the two generators will impact the size and design of the cooling towers under each potential gas turbine case.

DATA REQUEST

62. Please identify whether the number of cooling tower cells or the overall size of the cooling tower would be different for the GE or Siemens turbine cases.

BACKGROUND

Staff plans to perform a plume modeling analysis for the cooling tower. Staff requires cooling tower operating information for specific ambient and operating cases, and other cooling tower design data, to complete this analysis.

DATA REQUEST

63. Please confirm whether the cooling tower fan motors will have two speed or variable speed/flow controllers.

64. Please summarize for the cooling tower the conditions that affect vapor plume formation including cooling tower heat rejection, exhaust temperature, and exhaust mass flow rate. Please provide values to complete the table below , and additional data as necessary for staff to be able to determine how the heat rejection load varies with ambient conditions and also determine at what ambient conditions (i.e. wet bulb temperatures approaching or below freezing) cooling tower cells may be shut down.

65. Please use the worst-case, highest heat rejection case, which appears to be the Siemens turbine case for each ambient condition. This data should also consider the fan speed related to the answer to the data request directly above.

Parameter	**Cooling Tower Exhausts**							
Number of Cells	12 cells (1 by 12)							
Cell Height*	44.34 feet*							
Cell Diameter**	**							
Tower Housing Length***	718 feet***							
Tower Housing Width***	55.4 feet***							
Ambient Temperature*	26.2°F		34.4°F		75.6°F		94.9°F	
Ambient Relative Humidity	81%		56%		64%		22%	
Duct Firing	Yes	No	Yes	No	Yes	No	Yes	No
Number of Cells in Operation	--		--					
Heat Rejection (MW/hr)*	--	374.0	--	371.5	492.0	354.0	489.5	351.4
Exhaust Temperature (°F)	--		--					
Exhaust Flow Rate (lb/hr)	--		--					

*Ambient temperatures and an estimate of the heat rejection are based on the ambient cases presented in AFC Appendix 2A. The cooling tower height is taken from the air quality dispersion modeling files.
** Staff believes that the air quality modeling files uses an incorrect cell diameter, which needs to be corrected in this table.
***Estimated from plot plan. Corrections to incorrect dimensions in Table 5.13-2 have been requested.

Additional combinations of temperature and relative humidity or curves showing heat rejection vs. ambient condition and solar condition, if provided by the applicant, will be used to more accurately represent the cooling tower exhaust conditions.

66. Please include appropriate design safety margins for the heat rejection, exhaust flow rate and exhaust temperature in consideration that the air flow per heat rejection ratio is often used as Condition of Certification confirmation of design limit.

67. Please provide the cooling tower manufacturer and model number information and a fogging frequency curve from the cooling tower vendor, if available.

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 *CPV VACA STATION* *BY THE CPV VACAVILLE, L.L.C.*

Docket No. 08-AFC-11

PROOF OF SERVICE

(Established 2/18/2009)

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*indicates change

DECLARATION OF SERVICE

I, Maria Santourdjian, declare that on May 7, 2009, I served and filed copies of the attached CPV Vaca Station (08-AFC-11) Data Request Set 2 (#s 54-67). 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/vacastation/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:

(C*heck 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, 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
Attn: Docket No. 08-AFC-11
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 Signature in Dockets
Maria Santourdjian