

DOCKETED

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February 14, 2014

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**Re: Redondo Beach Energy Project Response
(Facility ID 115536)**

Dear Ms. Lee:

This letter provides the information you requested via electronic mail regarding the Redondo Beach Energy Project's (RBEP) electrical production rates.

1. What is the ambient temperature? Is it still 71 deg F, as in the earlier tables you provided?

Response: The ambient temperature used is 71 degrees F.

2. For the 3-on-1 configuration, how was the average power output of 414,031 kW in Table 2 derived? If the net plant electrical output for the four turbine outputs (367,918; 403,656; 443,066, 492,265) are summed and divided by 4, the result is 426,726 kW.

Response: Since the 3 on 1 configuration does not include duct firing, we did not want to show electrical generation or heat rate data in the duct burner column. So we omitted the lowest load rate data from the table. Below is the complete data set for the 3 on 1 configuration which includes the low load rate electrical production to support the average output of 414,031 kW in Table 2.

RBEP 3 on 1 Configuration Electrical Production

Net Plant Electrical Output – kW	363,249	367,918	403,656	443,066	492,265
Net Plant Heat Rate - Btu/kWh-LHV	7,698	7,681	7,575	7,492	7,440
Estimated Gross Heat Rate - Btu/kWh-LHV	7,474	7,457	7,354	7,274	7,223
Estimated Net Heat Rate - Btu/kWh-HHV	8,468	8,449	8,333	8,241	8,184
Average Power Output - kW	414,031				
Average Net Heat Rate - Btu/kWh-HHV	8,335				
Average Gross Heat Rate - Btu/kWh-HHV	8,092				

3. For the 3-on-1 configuration, how was the average net heat rate of 8,335 Btu/kWh-HHV in Table 2 derived. If the estimated new heat rate for the four turbine outputs (8,449; 8,333, 8,241, 8184) are summed and divided by 4, the result is 8302 Btu/kWh-HHV.

Response: See the response to #2 above.

4. Start-ups

The previous calculations indicated there would be 350 startups, with no differentiation between cold and warm/hot. For these latest calculations--

- a. How many cold startups?

Response: We assumed 24 cold starts.

- b. How many warm/hot starts?

Response: We assumed 150 warm starts and 450 hot starts.

Confirmation of Statements

1. The following three statements in the AFC and response letters were sent to me before the turbine and combined cycle net and gross ratings were clarified in Jerry's 11/1/13 e-mail. I think I tried revising the MW in the statements, but I am not sure my revisions are correct.

- a. "The RBEP 3-on-1 power island will be dispatched remotely by a centralized control center over an anticipated load range of approximately 160 to 530 MW." Is the 160 MW correct?

Response: Yes, 160 MW is the anticipated minimum load that a 3-on-1 power block would be dispatched. The absolute minimum load that the power block is capable of maintaining is 128 MW. Since the lowest possible load corresponds with the highest heat rate for the power block, AES would not expect a dispatch order that kept the unit operating at that load for any length of time.

- b. "The RBEP is designed to provide nearly continuous electrical generation from the minimum plant output of one turbine (approximately 128 MW reflecting no steam turbine output immediately following a startup) to its rated capacity of 530 MW (all three turbines at full load with no duct burners) while maintaining a relatively consistent heat rate." Is the 128 MW correct?

Response: Yes, 128 MWs is correct. It represents a 1 on 1 configuration at the minimum turbine operating load rate with the steam turbine operating.

- c. "The RBEP's design accomplishes the project objectives by being able to start up quickly, increase/decrease project electrical output quickly, efficiently generate electricity over a large range of output (128 to 530 megawatts), and capable of numerous start up and shutdowns." Is the 128 MW correct?

Response: Yes.

2. In the HBEP PDOC, there is a statement: "The plant efficiency varies from 30% to over 60%, depending on many factors." Is the 30% to 60% correct for RBEP?

Response: No, this statement is not correct for RBEP or HBEP. The correct range should be 30 to 50 percent.

If you have any additional questions, please contact either me or Jerry Salamy (916-286-0207).

Sincerely,



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