CALIFORNIA ENERGY COMMISSION
REPORT OF CONVERSATION Page 1 of 2

Siting, Transmission and Environmental Protection Division

FILE: **07-AFC-6**

PROJECT TITLE: Carlsbad Energy Center Project

Telephone	☒ **email**	☐ **Meeting Location:**	
NAME:	Mike Monasmith Senior Project Manager CEC Siting Division	**DATE:** 8/19/11	**TIME:** 12:45 p.m.
WITH:	Will Walters, Aspen Environmental (Air Quality Analyst)		
SUBJECT:	**Intervenor inquiry re: AQ clarification, Staff's 8/12/11 Supplemental Testimony**		

THE FOLLOWING IS A SERIES OF EMAILS BETWEEN ENERGY COMMISSION STAFF AND INTERVENOR KERRY SEIKEMANN IN THE CARSLBAD ENERGY CENER PRJOECT PROCEEDING, 07-AFC-6:

Mr. Siekmann,

The Supplemental Tables are based on the applicants permitted emission levels from the FSA Air Quality Table 18 and generation quantities as provided in FSA GHG Table 3. The general basis for each is permitted annual emission limits and related annual generation (MWh). The specific CECP assumptions considered in those tables for operation are:

* Maximum annual emissions for turbines are based on 300 hours of startup and 300 hours of shutdown (same as 300 startup/shutdown cycles) and 3500 hours of normal operation at annual average base conditions. This forms the emissions permit limit basis for annual emissions; however, the applicant can operate as needed as long as they remain within the permitted emissions limits. So in that context the use or non-use of power augmentation does not influence this value, the value used in the numerator to determine the values presented in Supplemental Table 1. As noted in the supplemental testimony..."The actual emissions for each of these projects would depend on how much each project actually operates, how the project is dispatched or used, and the proportion of total operating time in startup or shutdown mode."

* As noted in the PSA comment responses (p. 4.1-138 of the reformatted FSA), the net MWh assumption was corrected to include the power generation from the steam injection power augmentation system and the power consumption of the desalination unit (estimated to be 1,236 MWh), which has revised the net GHG emission performance from 0.4046 to 0.4049 MT CO2E/MWh. This correction which reduces the net MWh assumption would create a very small increase in the CECP emission rate values provided in Supplemental Table 1.

So, to summarize: Supplemental Table 1 does include power augmentation to the degree it influences the net generation value (denominator of the emission rate calculation), and it is included in the GWh value provided in Supplemental Table 2. However, the annual emissions value shown in Supplemental Table 2 is a permitted annual emissions cap that is not specifically related to the use or non-use of power augmentation.

Will Walters, Aspen
818-338-6757

DOCKET
07-AFC-6
DATE Aug 19 2011
RECD. Aug 23 2011

From: Kerry Siekmann [mailto:siekmann1@att.net]
Sent: Friday, August 19, 2011 12:56 PM
To: Will Walters
Subject: Re: Question Regarding Air Table from CEC Supplemental Testimony Re:CECP

Will,
Thank you for the answer. May I also ask if both supplemental tables 1 & 2 are with steam augmentation included for CECP or not?
Kerry Siekmann

From: Will Walters <WWalters@aspeneg.com>
To: Mike Monasmith <Mmonasmi@energy.state.ca.us>
Cc: Kerry Siekmann <siekmann1@att.net>; Gerry Bemis <Gbemis@energy.state.ca.us>; "mlayton@energy.state.ca.us" <mlayton@energy.state.ca.us>
Sent: Fri, August 19, 2011 11:57:44 AM
Subject: RE: Question Regarding Air Table from CEC Supplemental Testimony Re:CECP

Mike,

The startup/shutdown cycles assumed for each project, based on actual permit requests or by the noted proxy projects' permit requests, are as follows:

Carlsbad - 300 startup cycles/year/turbine
Pio Pico - 500 startup cycles/year/turbine
Escondido - 250 startup cycles/year/turbine + 20 hours of maintenance operation (Orange Grove Proxy)
Quail Brush - 300 startup cycles/year/turbine (Eastshore Proxy)

So, only Pio Pico assumes more startup cycles than Carlsbad. However, given that Carlsbad has a higher operating efficiency than the PPA projects it would be expected to have a higher normal operation period duration per startup than the PPA projects (it should be called first to start and last to shutdown in the loading order in comparison to the three PPA facilities). Each project's steady-state emissions rates/generation rates were purposely not compared as that would have clearly skewed the emissions rate comparison in favor of Carlsbad.

Will Walters, Aspen
818-338-6757

-----Original Message-----
From: Mike Monasmith [mailto:Mmonasmi@energy.state.ca.us<mailto:Mmonasmi@energy.state.ca.us>]
Sent: Thursday, August 18, 2011 2:34 PM
To: Kerry Siekmann
Subject: Question Regarding Air Table from CEC Supplemental Testimony Re:CECP

Hi Kerry,

I'll ask for ya.

Thanks,

Mike

Mike Monasmith
Senior Project Manager
California Energy Commission
1516 9th Street, MS 15
Sacramento, CA 95814

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>>> Kerry Siekmann <siekmann1@att.net<mailto:siekmann1@att.net>> 8/18/2011 11:18 AM >>>
Mike
Regarding Air Quality Supplemental Table 1:
How many startups are figured into this table for each unit type on a yearly basis?
Kerry

cc: Gerry Bemis, Air Quality Senior Chris Davis, Siting Office Manager Matt Layton, Engineering Office Manager Dick Ratliff, Staff Counsel Jennifer Jennings, Public Adviser	**Prepared by**: Mike Monasmith