

LATHAM & WATKINS LLP

November 20, 2009

DOCKET	
08-AFC-7	
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File No. 033947-0020

VIA FEDEX

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-7
1516 Ninth Street, MS-4
Sacramento, California 95814-5512

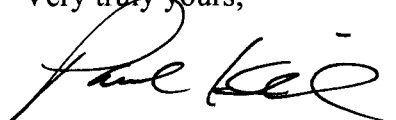
Re: GWF Tracy Combined Cycle Power Plant Project: Docket No. 08-AFC-7

Dear Sir/Madam:

Pursuant to California Code of Regulations, title 20, sections 1209, 1209.5, and 1210, enclosed herewith for filing please find the Declaration of Doug Wheeler as Supplemental Testimony Regarding Power Plant Efficiency and Greenhouse Gas Emissions.

Please note that the enclosed submittal was also filed today via electronic mail to your attention and served on all parties to the above-referenced project.

Very truly yours,



Paul E. Kihm
Senior Paralegal

Enclosure

cc: CEC 08-AFC-7 Proof of Service List (w/encl. via e-mail and U.S. Mail)
Michael J. Carroll, Esq. (w/ encl.)

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4 Attorneys for Applicant

5 State of California

6 Energy Resources

7 Conservation and Development Commission

8
9 In the Matter of:

Docket No. 08-AFC-07

10 APPLICATION FOR CERTIFICATION
FOR THE GWF TRACY COMBINED
11 CYCLE POWER PLANT BY GWF
ENERGY, LLC

DECLARATION OF DOUG WHEELER AS
SUPPLEMENTAL TESTIMONY REGARDING
POWER PLANT EFFICIENCY AND
GREENHOUSE GAS EMISSIONS

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14 I, Doug Wheeler, declare as follows:

15 1. I am an employee of GWF Energy, LLC and am duly authorized to make
16 this declaration. Except where stated on information and belief, the facts set forth herein are true
17 of my own personal knowledge and the opinions set forth herein are true and correct articulations
18 of my opinions regarding the GWF Tracy Combined Cycle Power Plant (the "Project"). If called
19 as a witness, I could and would testify competently to them.

20 2. I earned a M.S. in chemistry and have more than 40 years of experience in
21 the energy industry with engineering and management. My experience with GWF Energy, LLC
22 has included permitting, engineering, and operating six petroleum coke plants in California. I
23 also have experience with obtaining California Energy Commission ("CEC") licenses for a 98
24 megawatt ("MW") cogeneration facility in the City of Hanford, a 95MW peaker plant in the City
25 of Hanford, a 95 MW peaker plant in the City of Lemoore, and a 169 MW peaker plant in the
26 City of Tracy. In all of the CEC licensing cases, I acted as the Project Manager for GWF
27 Energy, LLC. A copy of my current curriculum vitae is included in the Applicant's Prehearing
28 Conference Statement on file in this matter.

1 3. The Final Staff Assessment (“FSA”) estimated the Project’s greenhouse
2 gas (“GHG”) performance as 0.474 MT CO₂/MWh. Notably, Staff’s analysis is based on “worst
3 case” operating conditions for natural gas usage, as described in the Application for Certification
4 (“AFC”). The worst case operating conditions, which are highly conservative and very unlikely
5 to actually occur, assumed the natural gas usage at an ambient temperature of 15 degree
6 Fahrenheit (“deg F”) and duct firing the heat recovery steam generator (“HRSG”) to a plant
7 output of 314 MW. Nonetheless, the Project meets the Greenhouse Gas Emission Performance
8 Standard in Senate Bill 1368 of 0.500 MT CO₂/MWh even under these “worst case” operating
9 conditions.

10 4. If the same analysis was performed at ISO conditions (59 deg F), the
11 estimated GHG performance would be substantially lower, at 0.437 MT CO₂/MWh. This
12 performance easily meets the SB 1368 requirement. In both cases, the GHG performance
13 assumed 5,539 non-duct-fired hours of operation and 3,100 hours of duct-fired hours of
14 operation. The analysis of the environmental impacts was based on 8,639 total annual operating
15 hours, as described in the AFC. This was done to provide the greatest dispatch flexibility to a
16 power purchase agreement counterparty. Attached as Table A is a summary of the Project’s
17 efficiency at various temperature conditions and GHG performance at various conditions and
18 operating modes. As shown, the Project will meet the SB 1368 performance standard under the
19 various conditions.

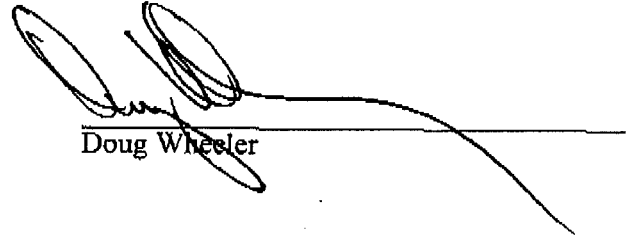
20 5. The FSA concludes that the Project “could” easily meet the performance
21 standard in SB 1368. It is my understanding that Staff did not make a definitive determination of
22 SB 1368 compliance because Staff believes it is the California Public Utilities Commission’s
23 role to make such a determination. Nevertheless, the substantial evidence submitted into the
24 evidentiary record by GWF Energy, LLC in the AFC, related documents, and this declaration
25 supports a determination that the Project will in fact meet the standard of 0.500 MT CO₂/MWh
26 in SB 1368.

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Executed on November 19, 2009, at Pittsburg, CA.

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



Doug Wheeler

Attachment A

Table A

GWF Tracy, Estimated Potential GHG Emissions	15F Duct Fired	59F Duct Fired	59F Non Fired
Total Turbine/HRSG GHG emissions (metric tons CO2 equivalent/yr)	1,110,076	1,017,973	911,075
+ Aux boiler	18,093	18,093	18,093
+ Emergency Fire Pump	7	7	7
+ EDG	11	11	11
+ Worker commutes -off-site	143	143	143
+ Material deliveries - off-site	20	20	20
= Total Project GHG emissions	1,128,350	1,036,247	929,349
/ Estimated annual energy output (MWh/yr)	2,371,772	2,371,772	2,185,667
= Estimated Annualized GHG Performance (MTCO2/MWh)	0.474	0.436	0.424
<i>Note the value above does not include CO2 equivalents for CH4 and N2O</i>			
= Estimated Annualize GHG Performance (MTCO2E/MWh)	0.476	0.437	0.425
SB 1368 Standard (MTCO2E/MWh)	0.5	0.5	0.5
Will Project Meet SB 1368 Performance Standard?	Yes	Yes	Yes

Annualized energy output is based on 3,100 hours with duct burning at 314 MW and 5,539 hours at 253MW without duct burning.

Tracy Plant Efficiency 45.3% 45.2% 48.3%

**STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

In the Matter of:)	Docket No. 08-AFC-7
)	
Application for Certification, for the GWF TRACY COMBINED CYCLE POWER PLANT PROJECT by GWF Energy, LLC)	PROOF OF SERVICE
)	(Revised February 25, 2009)
)	
)	

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GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
CEC Docket No. 08-AFC-7

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GWF TRACY COMBINED CYCLE POWER PLANT PROJECT
CEC Docket No. 08-AFC-7

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DECLARATION OF SERVICE

I, Paul Kihm, declare that on November 20, 2009, I served and filed copies of the attached:

**DECLARATION OF DOUG WHEELER AS SUPPLEMENTAL TESTIMONY
REGARDING POWER PLANT EFFICIENCY AND GREENHOUSE GAS EMISSIONS**

to all parties identified on the Proof of Service List above in the following manner:

California Energy Commission Docket Unit

- Transmission via electronic mail and by depositing one original paper copy with FedEx overnight mail delivery service at Costa Mesa, California, with delivery fees thereon fully prepaid and addressed to the following:

CALIFORNIA ENERGY COMMISSION

Attn: DOCKET NO. 08-AFC-7

1516 Ninth Street, MS-4

Sacramento, California 95814-5512

docket@energy.state.ca.us

For Service to All Other Parties

- Transmission via electronic mail to all email addresses on the Proof of Service list; and
- by depositing one paper copy with the United States Postal Service via first-class mail at Costa Mesa, California, with postage fees thereon fully prepaid and addressed as provided on the Proof of Service list to those addresses **NOT** marked "email preferred."

I further declare that transmission via electronic mail and U.S. Mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 20, 2009, at Costa Mesa, California.



Paul Kihm