Docket Number:	00-AFC-14C		
Project Title:	El Segundo Power Redevelopment Project Compliance		
TN #:	205313-1		
<b>Document Title:</b>	Revised Final Determination of Compliance Letter		
<b>Description:</b>	Revised Final Determination of Compliance letter		
Filer:	John Yee		
Organization:	South Coast Air Quality Management District		
<b>Submitter Role:</b>	Public Agency		
ubmission Date:	7/9/2015 5:49:50 PM		
<b>Docketed Date:</b>	7/9/2015		

July 1, 2015

Ms. Wenjun Qian California Energy Commission 1516 Ninth Street Sacramento, CA 95814

SUBJECT:

Revised Final Determination of Compliance (FDOC) for El Segundo Power

Facility Modification (ESPFM) Project, located at 301 Vista Del Mar, El

Segundo, CA 90245; Facility ID No. 115663

Dear Ms. Qian:

The South Coast Air Quality Management District (SCAQMD) has reviewed comments provided on the FDOC dated August 26, 2014 for the above identified project. The SCAQMD received comments from the California Energy Commission (CEC) in an August 29, 2014 email to the SCAQMD (See attached) along with comments submitted by the applicant in their September 15, 2014 letter to the SCAQMD (See attached). The SCAQMD has carefully reviewed each of the comments since issuance of the initial FDOC. The SCAQMD is reissuing a revised FDOC which has addressed each of the comments as well as provided clarifying information as shown in the attached Appendix H. The revised FDOC with Appendix H for this project will be issued today.

If you have any questions regarding this project, please contact Mr. John Yee, Senior Engineer at (909) 396-2531/jyee@aqmd.gov or Mr. Christian Aviles at (909) 396-3147/caviles@aqmd.gov.

Sincerely

Mohsen Nazemi, P.E. Deputy Executive Officer

Engineering and Compliance

Attachments

MN:AYL:CDT:JTY:CSA

cc:

George L. Piantka, P.E.

Gerardo Rios, EPA Region IX

# CALIFORNIA ENERGY COMMISSION REPORT OF CONVERSATION Page 1 of 3



and Environmental Protection Division		FILE: 00-AFC-14C				
		PROJECT TITLE: El Segundo Power Facility Modification (ESPFM)		Docket: 00-AFC-14C		
TECHNICAL A	REA(S)	: Air Quality				
			☐ Meetir	ng Location: N/A		
NAME:	Wenjun Qian, CEC		DATE:	8/29/14 or 9/2/14; 9/4/14	<b>TIME:</b> ~ 11 am	
WITH:	Kenneth Laird (South Coast Air Quality Management District)					
SUBJECT:	Discussions regarding the Final Determination of Compliance					

#### COMMENTS:

Energy Commission staff (staff) asked the South Coast Air Quality Management District (district) staff to confirm the Best Available Control Technology (BACT) levels for the auxiliary boiler of the El Segundo Power Facility Modification (ESPFM) project in item 1. Energy Commission staff also asked the district staff to clarify some typographical errors and inconsistencies in the Final Determination of Compliance (FDOC) for the ESPFM.

1) BACT levels of the auxiliary boiler In the April 30, 2014 letter to the district (attached to TN# 202293 Project Owner's Comments Regarding Preliminary Staff Assessment, dated 5/5/2014), the facility owner proposed a 2-tier CO BACT limit: 50 ppm CO when the boiler operates between 20% to 100% load and 100 ppm CO when the boiler operates below 20% load (10% to 20%). The FDOC states that the auxiliary boiler will comply with the CO BACT limit of 50 ppmv at 3% O<sub>2</sub> at boiler loads between 10% and 100%. The district staff confirms that the facility owner and the district resolved this issue and agreed the CO BACT limit for the auxiliary boiler should be 50 ppmv at 3% O<sub>2</sub> at boiler loads between 10% and 100% instead of the 2-tier limit.

The April 22, 2014 vendor letter to NRG (attached to TN# 202293 Project Owner's Comments Regarding Preliminary Staff Assessment, dated 5/5/2014) shows the selective catalytic reduction (SCR) system for the auxiliary boiler is designed to reduce stack NOx emissions by 90% based on a minimum catalyst inlet temperature of  $500^{\circ}$ F with a maximum ammonia (NH<sub>3</sub>) slip of 10 ppmvd. Page 16 of the FDOC shows the auxiliary boiler SCR warranty is 5 ppmvd NH<sub>3</sub> slip at 3% O<sub>2</sub> at dry conditions. The district staff confirms that the facility owner and the district resolved this issue and agreed that the NH<sub>3</sub> slip limit for the auxiliary boiler SCR should be 5 ppmvd at 3% O<sub>2</sub> at dry conditions instead of 10 ppmvd.

2) Ammonia emission rates of the auxiliary boiler Condition D12.20 on page 70 of the FDOC limits the ammonia injection rate to 5 lb/hr in the SCR for the auxiliary boiler. Table D-5 on page 110 of the FDOC shows the ammonia emission rate of the auxiliary boiler is also 5 lb/hr. Energy Commission staff believes the ammonia emission rate should be much less than 5 lb/hr because most of the injected NH<sub>3</sub> would have reacted with NOx emissions. The district staff agreed to

#### CALIFORNIA ENERGY COMMISSION





check the ammonia emission rate of the auxiliary boiler.

3) Greenhouse Gases (GHG) emissions In Appendix E of the FDOC, the district updated the total GHG emissions (tons/year) based on revised Global Warming Potential (GWP [Federal Register, November 29, 2013]) values, which became effective on January 1, 2014. However, the district didn't update the GHG emissions in tons/net MWh and lbs/net MWh. For example, on page 117 of the FDOC, the total GHG emissions from the combined cycle with 45% load has been revised to 425,166.44 tons/year. However, the corresponding 967.10 lbs/net MWh shown in the FDOC was based on the original estimate of total GHG emissions of 424,884 tons/year. Current FDOC condition E193.6 also limits the GHG emissions to 967 lbs/net MWh. Using the revised total GHG emissions, the lbs/net MWh number should be revised to 967.74, which will be rounded to 968. The corresponding GHG limit in E193.6 will become 968 lbs/net MWh. The district staff agrees to review the GHG calculations and make necessary adjustments.

#### 4) Capacity limit

Condition E448.3 on page 80 of the FDOC limits the total maximum amount of electricity produced from the new turbines to 447 MWh. Energy Commission staff believes "MWh" is a typographical error, which should be corrected to "MW". The district staff concurs with Energy Commission staff that it should be corrected to "MW".

- 5) Timeframe to submit source test protocols

  Condition D29.10 on page 71 of the FDOC requires a source test protocol to be
  submitted to the district engineer no later than 90 days before the proposed test date.

  Energy Commission staff noticed in other conditions, such as D29.13, the timeframe to
  submit a source test protocol has been revised from 90 days to 60 days before the
  proposed test date. The district staff agrees the "90 days" in condition D29.10 is a
  typographical error and should be corrected to "60 days".
- 6) RECLAIM Trading Credits (RTCs)
  Energy Commission staff found inconsistencies in the total RTCs required for the 1<sup>st</sup> year of operation on different pages of the FDOC. On page 57, the total RTCs required for the 1<sup>st</sup> year of operation is shown to be 242,084 lbs. On page 122, the total RTCs required for the 1<sup>st</sup> year of operation is calculated to be 242,139 lbs. Energy Commission staff believes the correct total RTCs required for the 1<sup>st</sup> year of operation should be 242,139 lbs. The district staff agrees to review the RTC calculations and make necessary corrections to any typographical errors in the RTC requirements.

### 7) Commissioning emissions

Energy Commission staff noticed the district revised the commissioning emissions of PM10 and SOx for the Trent 60 turbines on page 96 of the FDOC. The district staff verified that the revised commissioning emissions are based on the facility owner's February 7, 2014 submittal to the district, which was also submitted to the Energy Commission on September 12, 2013. Staff believes the revised SOx emissions for the Trent 60 turbines are based on a sulfur content of 0.25 grains per 100 standard cubic feet (0.25 gr/100 scf). Staff believes the SOx emissions during the commissioning of the

# CALIFORNIA ENERGY COMMISSION REPORT OF CONVERSATION Page 3 of 3



GE 7FA turbine on page 87 of the FDOC were based on a sulfur content of 0.75 gr/100 scf. Energy Commission staff asked the district staff whether the district would revise the commissioning SOx emissions of the GE 7FA turbine to be based on a sulfur content of 0.25 gr/100 scf. The district staff states that the emissions during commissioning of the GE 7FA are based on the facility owner's submittal to the district and the district does not intend to revise the data from the facility owner. Energy Commission staff just would like to make sure the district staff is aware of the inconsistencies. The facility owner's worst case impact analysis was conservatively based on a sulfur content of 0.75 gr/100 scf.

Energy Commission staff asked the district staff how the district is going to process the above mentioned revisions. The district staff states that the district will not revise the FDOC but will make the above mentioned possible changes in a revised permit. Energy Commission staff is also aware that the facility owner is requesting the district to clarify language about startups and startup limits. The district staff states that if the district is going to change the startup language, it will also be in a revised permit, not a revised FDOC.

cc:	Signed:			
	Name: Wenjun Qian			

September 15, 2014

Andrew Lee Engineering and Compliance South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 92865-4182



1801 J Street Sacramento, CA 95811 Tel: (916) 444-6666 Fax: (916) 444-8373

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Subject: Proposed El Segundo Power Facility Modification Project - Comments on

**FDOC** 

Dear Mr. Lee:

On behalf of El Segundo Power, LLC (Applicant), we are providing comments on the Final Determination of Compliance (FDOC) for the El Segundo Power Facility Modification (ESPFM) Project, dated August 26, 2014. We greatly appreciate the effort that the District staff has expended in evaluating the application and preparing the FDOC.

The comments are listed in the order they appear in the FDOC. With regards to comments on draft permit conditions, while the identical issues may appear elsewhere in the FDOC, the comments focus on the draft Section H of the FDOC because that is the version of the draft permit generated by the SCAQMD permit computer system and will most closely resemble the final version of the permit.

# CO<sub>2</sub> Emission Limits for New Gas Turbine Unit 9 (FDOC, Engineering Evaluation, Page 2 of 122)

The markup of the equipment/permit limit summary table shows new CO<sub>2</sub> limits for the new combined cycle Unit 9. While the CO<sub>2</sub> emission limit of 1,100 lbs/MWh<sub>net</sub> associated with the baseload unit performance standard in CCR Title 20 may be applicable to the new combined cycle unit if the actual annual capacity factor of the unit is consistently greater than 60 percent, it is premature to include the CO<sub>2</sub> emission limit of 1,000 lbs/MWh<sub>gross</sub> associated with the draft GHG NSPS. The new GHG NSPS is not yet finalized/adopted, and it would be premature at this point for the SCAQMD to develop a permit limit based on the draft language in this proposed regulation. Doing so will likely result in a permit limit that is inconsistent with the final regulation. Therefore, we request that this limit be removed from the permit until such time as a final rule has been promulgated.

# NO<sub>x</sub> and CO PPM Limits for Auxiliary Boiler (FDOC, Section H, Page 14, equipment/emission limit summary table)

As indicated in our April 20, 2014 letter to the SCAQMD where we submitted the Selective Catalytic Reduction (SCR) permit application for the auxiliary boiler, based on vendor supplied information, at very low boiler operating loads (from 10% load to just below 20% load) the expected CO emission level is 100 ppm rather than the 50 ppm that the boiler will achieve at higher loads. In addition, in this letter we requested exemptions from the CO and  $NO_x$  ppm levels during boiler startups (limited to 120 minutes per event), shutdowns (limited to 60 minutes per event), and during the commissioning period (80 operating hours). We request that these exemptions be addressed in new conditions added to the permit.

#### Facility-Wide PM<sub>2.5</sub> Limit (FDOC, Section H, Page 17, Condition F2.1)

Draft Condition F2.1 is a facility-wide limit on the annual PM<sub>2.5</sub> emissions for the El Segundo Power Facility. Therefore, the draft condition needs to be revised to include the emissions for existing Units 4, 5, and 7 and include the corresponding PM<sub>2.5</sub> emission factors for these units (i.e., 4.66 lbs/mmscf from Condition A63.2 for Units 5 and 7, 5.16 lbs/mmscf<sup>1</sup> for Unit 4). In addition, we request that the PM<sub>2.5</sub> emission factors for Unit 9 be corrected to 4.51 lbs/mmscf as listed in Condition A63.3, and the PM<sub>2.5</sub> emission factor for the auxiliary boiler be corrected to 6.80 lbs/mmscf as listed in Condition A63.5. The requested changes are shown below:

... The operator shall not operate any of the new gas turbines #5, 7, 9, 11, 12, existing boiler #4, or the auxiliary boiler unless it demonstrates compliance with this limit.

The operator shall calculate the emissions by using the calendar monthly fuel use data and the following emission factors: PM2.5: 4.09 4.51 lb/mmscf for GE 7FA combined cycle gas turbine; 9.98 lb/mmscf for Trent 60 simple cycle gas turbines; 8.82-6.80 lb/mmscf for auxiliary boiler; 4.66 lb/mmscf for gas turbines #5 and 7, and 5.16 lb/mmscf for existing boiler #4...

### Monthly Emission Limits for Auxiliary Boiler (FDOC, Section H, Page 23, Condition A63.5)

Draft Condition A63.5 includes language regarding the use of a CO Continuous Emissions Monitoring System (CEMS) to track compliance with the monthly CO emission limit. Due to the small size of the auxiliary boiler (approximately 36 MMBtu/hr), it is not reasonable to require the installation of a CO CEMS on this unit. We request that the monthly CO emissions for the unit be tracked in the same manner that VOC,  $SO_X$ , and  $PM_{10}$  emissions are being calculated by using monthly fuel use and emission factors. The requested changes are shown below.

<sup>&</sup>lt;sup>1</sup> This PM<sub>2.5</sub> emission factor for Unit 4 was discussed in a July 30, 2008 letter El Segundo Power to the SCAQMD.

...The operator shall calculate the emission limits by using the calendar monthly fuel use data and the following emission factors: VOC: 1.44 lb/mmscf, PM10: 6.80 lb/mmscf, SOx: 0.71lb/mmscf, CO: 22.66 lb/mmscf.

The operator shall calculate the emission limits for CO after the CO CEMS certification based upon readings from the SCAQMD certified CEMS. In the event the CO CEMS is not operating or the emissions exceed the valid upper range of the analyzer, the emissions shall be calculated by using monthly fuel use data and the following factors: natural—gas—commissioning: 45.35 lb/mmscf, normal operation: 22.66 lb/mmscf...

Clarifications Regarding Startup Language and Exemption During Commissioning Period for New Gas Turbine Unit 9 (FDOC, Section H, Pages 28 to 29, Conditions A195.12, A195.13, and A195.14)

Draft Conditions A195.12, A195.13, and A195.14 include limits on the length of startups and shutdowns and a limit on the number of starts per year for Unit 9. As requested in our January 27, 2014 comment letter on the PDOC, we request that these conditions be revised to show clearly that the startup/shutdown duration limits and limit on the number of annual startups does not include the commissioning period. In addition, as requested in our comments on the PDOC and to be consistent with the language in FDOC Condition C1.7, we request that aborted startups/restarts be counted as a single startup event. The requested changes are shown below for Condition A195.12 (identical changes needed for Conditions A195.13, A195.14):

...The 2.0 PPMV NOX emission limit(s) is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, fast start-ups, traditional start-ups, and shutdown periods. The turbine commissioning period shall not exceed 800 hours. Following the commissioning period, Aa fast start-up shall not exceed 30 minutes. Following the commissioning period, Aa traditional start-up shall not exceed 60 minutes. Following the commissioning period, a Sshutdown time shall not exceed 30 minutes. Following the commissioning period, Tthe gas turbine shall be limited to a maximum of 200 total start-ups per year, and a maximum of 50 traditional start-ups per year...

If during start-up the process is aborted and the turbine is re-started, then the start-up and re-start is defined as "one start-up". In this case the start-up shall not exceed one hour.

Clarifications Regarding Startup Language and Exemption During Commissioning Period for New Gas Turbine Units 11 and 12 (FDOC, Section H, Pages 30 to 31, Conditions A195.15, A195.16, and A195.17)

Draft Conditions A195.15, A195.16, and A195.17 include limits on the length of startups and shutdowns and a limit on the number of starts per year for Units 11 and 12. As indicated in our January 27, 2014 comment letter on the PDOC, we request that these conditions be revised to show clearly that the startup/shutdown duration limits and limit on the number of annual startups do not include the commissioning period. In addition, as requested in our comments on the PDOC and to be consistent with the language in FDOC Condition C1.7, we request that aborted startups/restarts be counted as a single

startup event. The requested changes are shown below for Condition A195.15 (identical changes needed for Conditions A195.16, A195.17):

...The 2.5 PPMV NOX emission limit(s) is averaged over 1 hour, dry basis at 15 percent oxygen. This limit shall not apply to turbine commissioning, start-ups, and shutdown periods. The turbine commissioning period shall not exceed 206 hours. Following the commissioning period, a start-up shall not exceed 30 minutes. Following the commissioning period, a Sshutdown time shall not exceed 20 minutes. Following the commissioning period. Fine gas turbine shall be limited to a maximum of 480 total start-ups per year...

If during start-up the process is aborted and the turbine is re-started, then the start-up and re-start is defined as "one start-up". In this case the start-up shall not exceed one hour.

### Clarifications Regarding Startup Language for New Gas Turbine Unit 9 (FDOC, Section H, Page 33, Condition C1.7)

As requested in our January 27, 2014 comment letter on the PDOC, we request that this condition be revised to show clearly that Unit 9 is allowed to undergo two startups per day with one of these startups being a traditional startup (as analyzed by the SCAQMD during the review of this project). The requested changes are shown below for Condition C1.7:

... <u>The number of start-ups shall not exceed 2 per day</u>. The number of traditional start-ups shall not exceed 1 per day...

# Clarifications Regarding Startup Language for New Gas Turbine Units 11 and 12 (FDOC, Section H, Page 33, Condition C1.8)

As requested in our January 27, 2014 comment letter on the PDOC and to be consistent with the language in FDOC Condition C1.7, we request that aborted startups/restarts be counted as a single startup event. In addition, as requested with our comments on the PDOC and to be consistent with FDOC Condition C1.7, we request that the condition be revised to indicate clearly that the limit on the number of startups does not apply during the commissioning period. Also, the changes include the removal of a repeated requirement. The requested changes are shown below for Condition C1.8:

... The operator shall limit the number of start-ups to no more than 60 in any one calendar month.

The number of start-ups shall not exceed 4 per day.

NOx emissions during a start-up shall not exceed 28 lbs.

The NOx emissions from a startup shall not exceed 28 lbs. The beginning of startup occurs at initial fire in the combustor and the end of startup occurs when the BACT levels are achieved. If during startup the process is aborted then the start-up and re-start is

defined as "one start-up." In this case the start-up shall not exceed one hour. the process will count as one startup.

The requirements of this condition do not apply during the initial commissioning period.

# Clarifications Regarding Catalyst Operating Temperatures for New Gas Turbine Units 9, 11, 12 (FDOC, Section H, Pages 36 to 48, Conditions D12.15 and D12.18)

As indicated in our January 27, 2014 comment letter on the PDOC, we request that these conditions be revised to show clearly that the catalyst operating temperature requirements do not apply during the commissioning period. The requested change is shown below for Condition D12.15 (with identical changes needed for Conditions D12.18 and D12.21):

... The temperature limitations of this condition do not apply during turbine startup and shutdown periods <u>and do not apply during the commissioning period</u>.

# Clarifications Regarding Catalyst Operating Temperatures for Auxiliary Boiler (FDOC, Section H, Page 40, Condition D12.21)

This is a new condition that was not included in the PDOC. As requested above for the gas turbines, we request that this condition be revised to show clearly that the catalyst operating temperature requirements do not apply during the commissioning period and do not apply during auxiliary boiler startups/shutdowns. The requested change is shown below for Condition D12.21:

... The temperature shall remain between 500 degrees F and 750 degrees F.

The temperature limitations of this condition do not apply during boiler startup and shutdown periods and do not apply during the commissioning period.

### Clarification Regarding PM<sub>10</sub> Test Method for Auxiliary Boiler (FDOC, Section H, Pages 50, Condition D29.13)

To be consistent with the draft permit language contained in an earlier section of the FDOC (Engineering Evaluation, page 73 of 122), we request the test method for PM<sub>10</sub> be changed to "Approved District Method" rather than the NH<sub>3</sub> test methods listed in this condition.

# GHG Emission Limits New Gas Turbine Unit 9 (FDOC, Section H, Page 59, Condition E193.6)

This draft permit condition limits the annual GHG emissions for the new gas turbine Unit 9 and includes the calculation method used to track compliance with this limit. We request that the GHG emission factor in this condition be updated to match the revised

factor of 60.179 tons<sub>CO2e</sub>/mmscf shown on page 112 of 122 of the FDOC Engineering Evaluation. The requested change is shown below for Condition E193.6:

...GHG = 60.139 - 60.179\*FF, where...

### GHG Emission Limits New Gas Turbine Unit 9 (FDOC, Section H, Page 60, Condition E193.8)

This draft permit condition limits the annual GHG emissions for the new gas turbines Units 11 and 12 and includes the calculation method used to track compliance with this limit. We request that the GHG emission factor in this condition be updated to match the revised factor of 60.179 tons<sub>CO2e</sub>/mmscf shown on page 112 of 122 of the FDOC Engineering Evaluation. In addition, we request that the total GHG annual limit be revised to match the updated total shown on page 113 of 122 of the FDOC Engineering Evaluation. Furthermore, we request that the GHG lbs/MWh<sub>net</sub> limit be changed from 1,503 to 1,544 lbs/MWh<sub>net</sub> to account for the change to the GHG annual total emissions and a correction needed in the calculation of annual net MWh total for each unit.<sup>2</sup> The requested change is shown below for Condition E193.8:

... GHG = 60.13960.179\*FF, where

Where, GHG is the greenhouse gas emissions in tons of CO2e and FF is the monthly fuel usage in millions standard cubic feet.

The operator shall calculate and record the GHG emissions in pounds per net megawatt hours on the 12-month rolling average. The GHG emissions from this equipment shall not exceed 140,998 141,093 tons per year. The GHG emissions shall not exceed 1,503 1,544 lbs per net megawatt-hours.

# Proposed GHG NSPS for New Gas Turbines Units 11 and 12 (FDOC, Section H, Pages 62, Condition E448.2)

This is new draft permit condition that did not appear in the PDOC. In our April 20, 2014 letter to the SCAQMD, we discussed the idea of a new permit condition associated with the draft GHG NSPS and explained that because the new GHG NSPS is not yet finalized/adopted, it would be premature at this point for the SCAQMD to develop a permit condition based on the draft language in this proposed regulation. Doing so will likely result in a permit limit that is inconsistent with the final regulation. While we continue to believe that it would be better not to develop a permit condition until the new GHG NSPS is finalized, because the SCAQMD is going forward with this approach we request a change to draft permit condition in the FDOC to make it consistent with the draft GHG NSPS. This change clarifies that to trigger the requirements of the draft GHG NSPS, a unit must both supply one-third or more of its potential electrical output and

<sup>&</sup>lt;sup>2</sup> See Table A-3, 55% load case, power output total during startups, page 118 of 122 FDOC Engineering Evaluation. 480 startups/year x 18.7 MW net = 8,976 MWh<sub>net</sub> per year rather than the 11,842 MWh<sub>net</sub> shown on Table A-3. This changes the overall total annual net output from each unit to 108,017 MWh<sub>net</sub> rather than the 110,883 MWh<sub>net</sub> shown on page 119 of 122. This changes GHG lbs/MWh<sub>net</sub> from 1,503 lbs/MWh<sub>net</sub> to 1,544 lbs/MWh<sub>net</sub>.

more than 219,000 MWh net electrical output to a utility distribution system on a 3-year rolling average basis. The requested change is shown below for Condition E448.2:

...This equipment shall not supply either one-third or more of its potential electrical output or and more than 219,000 MWh net electrical output to a utility distribution system on a 3-year rolling average basis...

#### Rule 1304.a MW Limit (FDOC, Section H, Pages 63, Condition E448.3)

This is new draft permit condition that did not appear in the PDOC. In our April 20, 2014 letter to the SCAQMD, we discussed the idea of a new permit condition associated with the boiler replacement offset exemption and explained that to allow for greater operational flexibility and to be consistent with the language of the Rule 1304.a.2, we requested that the permit condition limit the total gross MW output of the entire facility (Units 5-12) to 1020 MW<sup>3</sup>. Limiting the total MW output of the entire facility to the same MW level as the retired boilers is consistent with the intent of the Rule 1304.a boiler replacement offset exemption: ...The new equipment has a maximum electrical power rating (in megawatts) that does not allow basinwide electricity generating capacity on a per-utility basis to increase. In addition, this approach to limit the MW output of the entire facility is also consistent with draft permit language developed recently by the SCAQMD for the boiler replacement associated with the Huntington Beach Energy Project.<sup>4</sup> The requested change is shown below for Condition E448.3:

... The total maximum amount of electricity produced on a gross basis from gas turbine devices D67 and D68 and the corresponding steam turbines, gas turbine device D90 and the corresponding steam turbine, device D100 and device D106 shall not exceed 4471020 MWh.

The gross electrical output shall be measured at the two generators serving each of the two Siemens combined cycle gas turbines, the two generators serving GE 7FA combined cycle gas turbine, and the two generators serving the two Trent 60 simple cycle gas turbines...

### NO<sub>x</sub> RECLAIM Trading Credits for Auxiliary Boiler (FDOC, Section H, Page 65, Condition I297.6)

To be consistent with the annual  $NO_x$  emissions summarized in Table C-5 of the FDOC Engineering Evaluation, we request that the amount of  $NO_x$  RTCs required for the first year of operation be changed from 521 lbs to 564 lbs.

<sup>&</sup>lt;sup>3</sup> 175 MW per unit for shutdown of existing Units 1 and 2, 335 MW per unit for shutdown of existing Units 3 and 4.

<sup>&</sup>lt;sup>4</sup> SCAQMD FDOC Issued to the Huntington Beach Energy Project, July 18, 2014, page 66 of 144, Condition C1.9. (http://docketpublic.energy.ca.gov/PublicDocuments/12-AFC-02/TN202774\_20140720T144203\_Final\_Determination\_of\_Compliance\_for\_the\_Huntington\_Beach\_Ener\_pdf).

If you have any questions regarding these comments, please do not hesitate to contact us.

Respectfully,

Tom Andrews

cc: George Piantka, NRG Energy Robert Mason, CH2M Hill John McKinsey, Locke Lord