

**Memorandum**

Date: December 23, 2009

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To: Chairman Karen Douglas  
Commissioner Jeffrey D. Byron

From: California Energy Commission – Matt Trask, Amendment Project Manager  
1516 Ninth Street  
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Subject: **STAFF'S ERRATA TO THE STAFF ASSESSMENT FOR THE HENRIETTA PEAKER PROJECT MAJOR AMENDMENT PROCEEDING (01-AFC-18C)**

<b>DOCKET</b>	
<b>01-AFC-18C</b>	
DATE	DEC 23 2010
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Energy Commission staff and GWF Energy, the applicant for the Henrietta Peaker Project (HPP) major amendment proceeding (01-AFC-18C), have agreed on several changes and corrections to the Staff Assessment of GWF's Petition to Amend the Commission's decision approving the project. GWF on October 14, 2008, filed a Petition to Amend (PTA) the Energy Commission decision approving the HPP, seeking to convert the HPP from a 95 MW peaker project to a 120 MW combined-cycle generating facility by adding two Once-Through Steam Generators, one for each generating unit, and a 25 MW steam turbine to the HPP, plus adding an air-cooled condenser (ACC) for dry cooling.

Staff released its Staff Assessment of the PTA on November 5, 2009. GWF filed comments on the SA on December 10, 2009. Most of the issues raised in those comments were resolved through informal discussions between staff and GWF, with staff explaining the rationale behind some conclusions drawn and mitigation required in the SA. However, staff is in agreement with other changes suggested by GWF in its comments, and thereby is submitting the following errata to the Staff Assessment. Deleted text is shown struck-through, and added text is shown underlined:

**Executive Summary**

- Page 1-2 (Project Location and Description)

The combined-cycle plant would also utilize a wet-surface air cooler (WSAC) for lube-oil cooling, which uses a spray of water onto the surface of the heat exchanger when air temperatures are above ~~98~~ 88 degrees.

**Project Description**

- Page 3-1 (Project Location and Description)

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The combined-cycle plant would also utilize a wet-surface air cooler (WSAC) for lube-oil cooling, which uses a spray of water onto the surface of the heat exchanger when air temperatures are above ~~98~~ 88 degrees.

The increased water use would come from the project's existing service connection from the Westlands Water District (WWD) ~~and Kings County~~.

- Page 3-3 (Water Supply and Waste Water Treatment)

Makeup water for the OTSGs and WSACs would come from the project's existing service connection from the Westlands Water District (WWD) ~~and Kings County~~.

**Air Quality**

- Page 4.1-1, 4<sup>th</sup> paragraph, second sentence:

CO emissions would be reduced from 6 ppmvd to 3 ppmvd at 15 percent oxygen (O<sub>2</sub>), and NOx emissions would be reduced from ~~3.63-7~~ ppmvd to 2.5 ppmvd at 15 percent O<sub>2</sub>.

- Page 4.1-1, 4<sup>th</sup> paragraph, last sentence:

The concentration of ammonia slip ~~used in the SCR process~~ would be limited to 10 ppmvd or less at 15 percent O<sub>2</sub>.

- Page 4.1-1, 5<sup>th</sup> paragraph, second sentence:

The concentration of ammonia slip ~~used in the SCR process~~ would be limited to 5 ppmvd or less at 15 percent O<sub>2</sub>.

- Page 4.1-13, 1<sup>st</sup> paragraph, second sentence:

The new emission concentration limits for CO and VOCs would be 3 ppmvd, and 2 ppmvd respectively ~~each~~ at 15 percent O<sub>2</sub>, with no change in NOx emissions.

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- Page 4.1-21, Auxiliary Boiler SO<sub>x</sub> Emissions Level

SO<sub>2</sub>: ~~0.040.0007~~ lbs/MMBtu, ~~0.0290-0225~~ lbs/hour

### Soil and Water Resources

- Page 4.8-1 (Introduction, 2<sup>nd</sup> Paragraph)

The existing Henrietta Peaker Plant (HPP) is permitted for maximum water use of ~~460~~ 150 acre-feet per year (afy) primarily for evaporative cooling, combustion turbine generator (CTG) injection, NO<sub>x</sub> emission control, and power augmentation (CEC, 2002).

- Page 4.8-18-19 (Water Supply, 1<sup>st</sup> – 3<sup>rd</sup> Paragraphs)

Approximately 158 afy of water would be required for GWF Henrietta process and service water requirements based on 8,000 hours of annual operation (GWF, 2008). This represents an 8 afy increase over the maximum permitted water use for HPP, and a 141 afy increase over the maximum and most recent actual annual water use. GWF proposes to use surface water from the CVP supplied by Westlands Water District and from the SWP supplied by the Tulare Lake Basin Water Storage District to supply water at GWF Henrietta. Staff considered the potential for the project's proposed use of surface water to cause impacts to surface water supplies or quality. Since the Tulare Groundwater Basin is already experiencing critical overdraft conditions, Staff also considered the potential for the project's use of surface water supplies associated with agricultural uses to increase groundwater pumping with the potential for leading to significant impacts to the quantity and quality of groundwater available in the area.

GWF has a 5 afy Manufacturing and Industrial entitlement with Westlands Water District associated with the GWF Henrietta site. ~~In addition, GWF has a 33.7 afy agricultural entitlement, subject to allocation, with Westlands Water District associated with the portions of the GWF Henrietta site that are still under agricultural production (GWF, 2008).~~ GWF indicates that Westlands Water District has verbally agreed to provide up to 51.8 afy, subject to allocation, for industrial uses at GWF Henrietta (GWF, 2008). Staff contacted Westlands Water District and confirmed that Westlands still recognizes a 51.8 afy entitlement with the GWF Henrietta site, however, GWF would need to receive permission to utilize more than 5 afy for industrial purposes (WWD, 2009).

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~~GWF Henrietta has a contract with Kings County to supply 200 afy an entitlement for 202 afy of Kings County water, subject to allocation. GWF, Kings County, and the Tulare Lake Basin Water Storage District have entered into an agreement to “reimburse” the 200 afy from Kings County with a 202 afy SWP entitlement held by GWF within the Tulare Lake Basin Water Storage District, which is also subject to allocation. from the Tulare Lake Basin Water Storage District under the SWP.~~

~~GWF also holds a stated it is in negotiation to expand a 750-acre purchase option to for 970-50 acres of land contiguous with GWF Henrietta within the Westlands Water District with a corresponding CVP entitlement for 2,512-600 afy (GWF, 2009). GWF did not provided any further information on the land purchase options in response to staff's data requests in comments following publication of the Staff Assessment (GWF, 2009a).~~

- Page 4.8-19 (Water Supply, 6<sup>th</sup> – 7<sup>th</sup> Paragraphs)

~~Approximately 158 afy of water would be required for GWF Henrietta process and service water requirements based on 8,000 hours of operation (GWF, 2008). This represents an 8 afy increase over the estimated maximum water use for HPP, and a 141 afy increase over the maximum and most recent actual annual water use.~~

Given GWF's currently in place water supplies agreements, GWF does not have sufficient water supplies to meet the estimated maximum requirement for the existing HPP or GWF Henrietta in 2009. In order to operate GWF Henrietta at maximum capacity during drought years, GWF will need to purchase and fallow additional agricultural lands (through the existing land purchase option) to provide a minimum of 158 afy of surface water entitlements to provide a reliable supply for GWF Henrietta. Given the 2009 CVP allocations, GWF could obtain an additional 251 afy (2,512 afy at a 10 percent allocation) to provide sufficient water supplies to operate at maximum capacity.

The identified water supply options for this project will be sufficient for 8,000 hours of full power operations per year providing CVP and SWP allocations remain above 7 percent of full allocations. In the event that the identified water supply options prove inadequate in the future, the plant owner will have to secure additional water supplies or curtail operations. Securing additional water supplies for the project in the future would require an amendment to the project license, and subsequent Staff Analysis of the potential impacts and appropriate mitigation associated with use of that water resource.

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- Page 4.8-20 (Water Use Compliance Plan, 2<sup>nd</sup> Paragraph)

... Recognizing the potential for water transfers to cause indirect impacts to groundwater supplies, the Tulare Lake Basin Water Storage District has adopted Rules and Regulations prohibiting water users from increasing historical groundwater pumping or following within the District as the result of a water transfer (TLBWSD, 2009).

- Page 4.8-28 (Condition of Certification **SOIL & WATER-3** – add missing COC)

**SOIL & WATER-3** The project owner shall install metering devices and record on a monthly basis the amount of water used by the project. The annual summary shall include the monthly range and monthly average of daily usage in gallons per day, and total water used by the project on a monthly and annual basis in acre-feet. The annual summary shall also include the yearly range and yearly average water use by the project. This information shall be supplied to the CPM.

**Verification:** The project owner shall submit, as part of its annual compliance report, a water use summary to the CPM on an annual basis for the life of the project.

- Page 4.8-29 (Condition of Certification **SOIL & WATER-7**)

**SOIL & WATER-7** ... Total water use at GWF Henrietta shall be limited to a maximum of 158 460 acre-feet per year.

- Page 4.8-30 (Condition of Certification **SOIL & WATER-8** - Delete)

~~**SOIL & WATER-8** To provide background perched groundwater quality information, GWF shall submit a plan for approval that identifies how the project owner will install and sample perched water from a groundwater monitoring well.~~

~~**Verification:** The project owner shall submit groundwater data including depth to groundwater information prior to the submission of the SWPPP to the CPM for approval. The monitoring program shall include sampling methodology and analytes. The project owner shall submit results of the monitoring program, including laboratory reports, to the CPM. The groundwater monitoring well shall be screened at a depth of 6–9 feet located~~

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~~on the HPP parcel (in the NW corner of the property if the current ground conditions allow access). The well annulus shall be sealed with a mixture of bentonite clay and cement. The well shall be equipped with a locking cover and protected with a concrete-filled pipe bollard set in concrete. Analytes shall include pH, total organic compounds, total suspended solids, and specific conductance. Additional wells and monitoring may be required based on the initial well test results, if the results indicate the perched water is of high quality and has beneficial uses. If the CPM determines additional monitoring and/or wells are required based upon the initial results, the project owner shall submit for CPM approval a groundwater monitoring plan. If a groundwater monitoring plan is required, approval of the final plan by the CPM must be received prior to initiation of any site mobilization activities.~~