

State Water Resources Control Board

DEC 11 2012

Mr. George L. Piantka
NRG Energy
5790 Fleet Street
Carlsbad, CA 92008

Dear Mr. Piantka:

RE: SUBMITTED IMPLEMENTATION PLAN FOR ENCINA POWER STATION

A letter was sent out by the State Water Resources Control Board (State Water Board) on November 30, 2010 directing the submittal of an Implementation Plan (IP) by April 1, 2011. The letter outlined the required information to include in the IP, which consisted of information on seven requirements for compliance with the Statewide Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Policy). In addition, if final compliance is not expected to be achieved by October 1, 2015, one of three interim mitigation measures must be chosen and discussed.

The intent of this letter is to inform you about the completeness of the information submitted in the IP for the Encina Power Station (EPS). State Water Board staff reviewed your IP and determined whether sufficient information was provided that satisfy each requested IP requirement.

EPS selected Track 1 compliance for units 1, 2, and 3, and Track 2 compliance for units 4 and 5. Units 1, 2, and 3 will be retired and repowered with a combined-cycle facility. The size in megawatts (MW) of the re-powered generating units 1, 2, and 3 is 558 MW as a combined-cycle facility. NRG Energy (NRG) secured a permit for this repowered facility from the California Energy Commission (CEC) earlier this year, but legal challenges by opponents to the new facility appear to be ongoing. If repowering is not completed by the 2017 compliance date, units 1, 2, and 3 will be retired. Only a Track 2 compliance schedule was provided for units 4 and 5.

Since the submission of the IP in April 2011, the San Onofre Nuclear Generating Station (SONGS) has gone offline with no firm date for restart, and according to power plant production and fuel use data submitted to the CEC, the EPS units have been operating at a higher capacity factor than in recent years preceding the SONGS outage. The outage at SONGS appears to have a material impact on the operation of EPS. According to studies described by the California Independent System Operator at the June 22, 2012 public workshop of the CEC, capacity electrically equivalent to EPS is highly desired in the absence of SONGS. The continued outage at SONGS may have a bearing on the necessity for repowering some or all of the capacity at EPS.¹

¹ Robert Sparks, California Independent System Operator Engineer, San Diego Gas & Electric application A. 11-05-023

The State Water Board acknowledges receiving the summarized information on the EPS interim measures, as included in the IP. Per section 2.C.(3)(b) of the policy, the owner or operator will comply by demonstrating to the State Water Board's satisfaction that the interim impacts are compensated for by providing funding to the California Coastal Conservancy to be used in a mitigation project. The State Water Board convened its Expert Review Panel to consider appropriate interim mitigation and fees for intakes under the Policy. The Expert Review Panel has recommended using an interim mitigation fee-based approach. This approach uses the Area of Production Foregone (APF) method per the amount of water used in million gallons. The APF method is preferred because the restoration and creation of coastal habitat will compensate for all organisms that are directly and indirectly impacted by entrainment and impingement. A recommendation was made to use the half-life method to have the ability to discount the cost of the fee and estimate the accrued resource value of the mitigation project. Half-life is the midpoint in the expected life of the mitigation project, and is the point where the resource value conveyed is expected to be 50 percent built. NRG proposes to provide funding to the California Coastal Conservancy as interim mitigation from October 1, 2015 and continuing up to and until EPS is in final compliance with the Policy. The State Water Board staff is supportive of this approach; however, we have not yet determined the half-life value for the interim mitigation fee at this time, and presently cannot conclude whether an interim mitigation fee of \$3.00 per million gallons is adequate.

The following directs you to provide further information and data input that would be needed for future grid reliability analysis to determine the impact on local and system reliability. Pursuant to the Policy and California Water Code section 13383, the State Water Board requires the following information to be submitted:

1. A schedule for the repowering of units 1, 2, and 3. In addition, address requirements 3, 4, 5, and 6 in the State Water Board letter of November 30, 2010.
2. There was no indication that a Power Purchase Agreement (PPA) with a utility or other load serving entity is needed prior to pursuing Track 1 for units 1, 2, and 3 or for Track 2 for units 4 and 5. Please confirm NRG's intention to complete the repowering of units 1, 2, and 3 and to pursue Track 2 compliance for units 4 and 5 regardless of PPA status. Please address NRG's plans with and without the return to service of SONGS.
3. The status of any necessary permitting activities to repower or retrofit your generating facilities.
4. The required study design for both impingement and entrainment studies, which should, at a minimum, cover a 36-month period. Impingement Impacts section 2.A.(2)(a)(ii) and Entrainment Impacts section 2.A.(2)(b).(ii) are required to comply with the Policy for units 4 and 5. An Impingement and Entrainment study design are to be approved by State Water Board staff.
5. Information on the effectiveness of implementing water intake flow reduction, a comparison on present and historical water intake flow, and the MW production. Per section 2.C.(2) of the Policy, no later than October 1, 2011, the owners or operators of existing power plant units were required to cease intake flows when not directly engaged in power-generating activities or critical system maintenance.

By January 31, 2013, the information requested in items 1 and 2 are required to be submitted, and, a response is required indicating when the State Water Board staff may expect to receive the required information in items 3 and 4. An extension for additional time to submit items 1 and 2 can be

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requested, but must include supportive justification why the information cannot be submitted by the above deadline.

Should you have any questions on this matter please feel free to contact Mr. Jonathan Bishop, Chief Deputy Director, at 916-341-5820 (jsbishop@waterboards.ca.gov) or Dr. Maria de la Paz Carpio-Obeso, Chief of the Ocean Unit, at 916-341-5858 (mcarpio-obeso@waterboards.ca.gov).

Sincerely,

A handwritten signature in black ink that reads "Thomas Howard". The signature is written in a cursive style with a large, stylized "T" and "H".

Thomas Howard
Executive Director

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James Stewart