

State Water Resources Control Board

NOV 7 2016

Mr. George L. Piantka
Director, Regulatory Environmental Service
NRG Energy, West Region
5790 Fleet Street
Carlsbad, CA 92008

Dear Mr. Piantka:

INFORMATION REQUIREMENTS FOR CARLSBAD ENERGY CENTER

On May 4, 2010 the State Water Resources Control Board (State Water Board) adopted the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (Once-Through Cooling [OTC] Policy). To prevent disruption with the State's electrical power supply, section 1.1 of the OTC Policy provides that the State Water Board will convene a Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS) to advise the State Water Board on grid reliability and the impact of OTC Policy implementation on local area and system reliability. In order to perform an updated grid reliability analysis, the State Water Board requires updates to the previously submitted implementation plans submitted pursuant to section 3.A of the OTC Policy.

Pursuant to the OTC Policy and California Water Code section 13383, the State Water Board requires that NRG Energy (NRG) provide the most current information for Carlsbad Energy Center (Carlsbad) at the existing Encina Power Station (Encina) site, updated from the previously-submitted Plan (See attachment).

Please note that a compliance date extension request requires an amendment to the OTC Policy. If and when circumstances that require an extension occur, NRG must submit a formal request for State Water Board consideration of an amendment to the compliance date set forth in the OTC Policy, along with supporting documentation. Please allow adequate time for the State Water Board to consider and process a request. The State Water Board requires a minimum of one year to process an OTC Policy compliance date deferral request.

Submission of the requested information is required no later than 60 days from the date of this letter.

Mr. George L. Piantka

2

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

Sincerely,


Thomas Howard
Executive Director

Attachment:

CARLSBAD ENERGY CENTER

1. The following is the State Water Board's current understanding of the proposed mechanism to bring each unit into compliance:

In its original April 1, 2011 implementation plan, NRG proposed different approaches for the five Encina units. For Encina Units 1-3 (an aggregate of 318 megawatts (MW) capacity), NRG proposed repowering with a new flexible combined cycle facility, consisting of two combined cycle units with an aggregate capacity of 550 MW. In June 2012 NRG received a permit from the California Energy Commission (CEC) for such a facility. Pursuant to Track 2 OTC Policy compliance NRG proposed retrofitting Encina Units 4-5 (an aggregate of 632 MW), to reduce environmental impacts.

In 2013, NRG informed the State Water Board that it still plans to replace Encina Units 1-3 with Carlsbad, but it no longer intends to pursue the Track 2 compliance option. NRG will retire Encina Units 4 and 5 no later than December 31, 2017, the final OTC Policy compliance date for Encina. Pursuant to an agreement reached among NRG, the City of Carlsbad and San Diego Gas and Electric (SDG&E) NRG announced it will seek to redesign Carlsbad as a set of peaking units. On May 2, 2014, NRG submitted a Petition to Amend to the CEC to replace all five Encina units plus a small combustion turbine with a 600 MW Simple Cycle Gas Turbine (SCGT) power plant. SDG&E submitted an application (A. 14-07-009) to the California Public Utilities Commission (CPUC) for approval of a Power Purchase Agreement (PPA) with NRG. NRG noted that they do not intend to modify the existing OTC Policy compliance date of December 31, 2017, whether or not this application is approved.

On May 21, 2015, the CPUC adopted Decision (D 15-05-051), which approved 500 MW of the originally requested 600 MW and allocated the remaining 100 MW to preferred resources or energy storage. The Decision ordered SDG&E to file the revised contract within 30 days. Pursuant to this Decision, SDG&E filed an advice letter seeking approval of a Power Purchase Tolling Agreement (PPTA) with the City of Carlsbad in June 2015. The PPTA contracts for the construction of five General Electric LMS100 combustion turbines with nominal output of 527 MW. In July 2015, the advice letter was approved by the CPUC, but six intervenors filed Applications for Rehearing with the appellate section.

In December 2015, the CPUC re-affirmed its approval of the Carlsbad PPTA. In response, petitioners requested that the Court of Appeal overturn the Decision.

On February 1, 2016, the CPUC responded to this petition. The Court of Appeal will ultimately decide whether the CPUC's Decision approving the PPTA was lawfully made. If the Court of Appeal does not grant the writ petition, the Decision stands.

In its February 12, 2016 letter to the State Water Board, NRG stated that, regardless of the status of Carlsbad, NRG intends to retire Encina no later than December 31, 2017 and does not seek an extension of this deadline.

On February 29, 2016, NRG announced via Form 10-K filing to the Securities and Exchange Commission (SEC) it does not expect Carlsbad to be commercially operational until winter 2018 (i.e., first quarter 2018). This delay is several months from the November 1, 2017 date included in the PPTA approved by the CPUC.

On August 9, 2016, NRG filed an updated Form 10-Q with SEC indicating a targeted commercial operation date in the second quarter of 2018. Delays in the Court of Appeals have potentially created further delays in the commercial operation date for Carlsbad.

If the actual online date of Carlsbad is delayed it may result in a request for an OTC Policy compliance date deferral for one or more units at Encina.

Please respond to the following questions and requests for information:

1. Assuming the Court of Appeals denies the petitions, what is the expected time to on-line status of Carlsbad?
2. If Carlsbad is delayed, are the existing Encina units able to continue operating if the State Water Board were to extend the OTC Policy compliance date? Please explain.
3. Does Encina Unit 1 need to be shut down while Carlsbad is constructed? If so, please explain why and at what point in the construction schedule of Carlsbad would this shut down have to occur?
4. In the event of an OTC Policy compliance date extension, are there electrical configurations, permit constraints, or any other reasons that would make some units preferred for extension over others?
5. Assuming one or more Encina unit's OTC Policy compliance dates were deferred by the State Water Board due to a delay in the approval/start of construction of Carlsbad, what is the timeline and expected issues for each of the following options to provide the financial means for Encina to operate?
 - a. SDG&E and NRG to enter into a PPA and then have this PPA approved by the CPUC.
 - b. NRG to obtain a Reliability Must Run contract from the California Independent Systems Operator.
6. Given the operating history of each Encina unit, which units are considered most reliable and least costly to maintain at the current reliability level?
7. What are the water pumping configurations of each unit, and does water intake most closely correspond to capacity online or to energy output? Are there other operational considerations affecting water pumping patterns that would differentiate one unit from another? Please explain.
8. Is there any other information that the State Water Board should be made aware?