12/14/10 Adoption Hearing Once Through Cooling Deadline: 11/19/10 by 12 noon



El Segundo Power, LLC Cabrillo Power I LLC

5790 Fleet Street, Suite 200 Carlsbad, CA 92008 (760) 710-2141 Fax (760) 719-2158

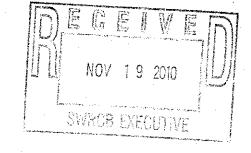
> M. Stephen Hoffmann, President NRG West Coast LLC

November 19, 2010

Jeanine Townsend, Clerk to the Board State Water Resources Control Board 1001 I Street, 24th Floor Sacramento, CA 95814

RE: Comment Letter - OTC Policy Amendment

Dear Ms. Townsend:



El Segundo Power, LLC and Cabrillo Power I LLC, both indirect subsidiaries of NRG West Coast LLC ("NRG West"), in turn a subsidiary of NRG Energy, Inc., submit the following written comments on the State Water Resources Control Board (the "Board") Proposed Amendment (the "Amendment") to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (the "OTC Policy").

El Segundo Power, LLC and Cabrillo Power I LLC support the Board's adoption of the proposed Amendment as drafted. Specifically, we support the consideration made to existing combined cycle OTC plants and steam boiler plants as demonstrated in proposed amendments to Section 2.A(2)(d)(i)-(ii) and Section 3.A.(1)(a)-(c), respectively. We appreciate Staff's willingness to reopen the adopted OTC Policy. Staff clearly has considered the importance of the newer, more efficient combined cycle OTC plants as well as the aging steam plants on grid reliability. They recognize that through commitments to repower the gas-fired OTC plants over time, coupled with testing and deployment of alternative intake screens and/or implementation of mitigation fees where alternative screens are not feasible, the amended OTC Policy will achieve the objectives of reducing impacts to the respective marine environments and phasing out gas-fired once-through cooling responsibly.

NRG West has been actively engaged in repowering its facilities in Southern California using once-through sea-water cooling for power generation, and we believe that eventual phasing out

of once-through sea-water cooling via the long term procurement process will be successful. A summary of the how NRG West has been transitioning away from OTC is attached as an Annex to this letter. Market forces have reduced the demand for high heat rate coastal steam boilers, and if the EPA original proposal were in effect, many of the OTC boilers already achieve the EPA's target 85% reduction in permitted OTC flow. NRG West plans to continue pursuing the timely repowering of its coastal plants to more efficient, environmentally beneficial generators, and, until new units are constructed, NRG West will continue to support use of available mitigation and will actively explore the use of different screens and redesign of inflow channels.

Respectfully submitted,

El Segundo Power, LLC Cabrillo Power I LLC

M. Stephen Hoffmann

President

ANNEX A to Comment Letter Supporting OTC Policy Amendment

NRG West and its affiliates own and operate four natural gas-fired generating stations in Los Angeles, Long Beach, Carlsbad, and San Diego, California, and are actively developing hundreds of MWs of utility-grade solar plants in California and the Southwest and fast-start dry-cooled combined cycle plants that will complement the growing renewable energy resources coming onto the grid.

NRG West has aggressively pursued repowering its legacy steam generating stations acquired from Southern California Edison Company and San Diego Gas & Electric Company using once-through sea-water cooling. NRG West shut down two boilers and respective OTC use at El Segundo Generation Station, and eliminated the OTC use at Long Beach Generating Station as part of repowering initiatives at these facilities. And NRG West has an Application for Certification filed with the California Energy Commission pending a proposed decision that will result in the retirement of three of the five steam boilers at Encina Power Station.

El Segundo Power Station.

In early 2001 following the California energy crisis, two steam boilers at El Segundo were taken out of service (eliminating 200 million gallons per day sea water cooling pending repowering) after NRG West filed an Application for Certification to replace the steam boilers with combined cycle units. While the California Energy Commission issued its Commission Decision in CEC Docket 00-AFC-14 in February 2005 for the El Segundo Power Redevelopment Project, which became final after the California Supreme Court denied a petition for review, it became apparent to NRG West that the once-through sea water cooling component included in the Commission Decision could be eliminated by changing the Project design and generating equipment. Accordingly, a Petition to Amend the El Segundo Power Redevelopment Project was filed with the CEC on June 19, 2007, to modify the Commission Decision to replace the originally approved gas turbines with rapid response combined cycle technology using a different scheme for the heat recovery steam generator boilers that would allow the use of dry cooling. Additionally, to avoid uncertainty in the use of air credits in the Priority Reserve bank at the South Coast Air Quality Management District, the Project includes the permanent retirement of El Segundo Generating Station Unit 3. The retirement of Unit 3 eliminates the need for once-through sea-water cooling used by that boiler (198 million gallons per day). Eliminating OTC for the new Project reduced net output from a nominal 630 MW to 560 MW, but the efficiency savings results in significantly reduced natural gas to produce approximately the same MWs as the retired Units 1, 2, and 3. Construction on the new Project is underway, with the demolition of retired Units 1 and 2. Unit 3 will be closed when the new Project is brought on line.

Long Beach Generating Station

NRG West closed the combined cycle generators at the Long Beach Generating Station (750 MW) on December 31, 2004, eliminating once-through sea water cooling (265 million gallons per day) from the Long Beach Harbor's Back Channel. In August 2007, four of the seven combustion turbines were refurbished, fitted with state-of-the art emissions catalysts, and

returned to service without the steam cycle - a minor closed cycle water circulation system cools the gas turbines, and the sea-water intake tunnel was permanent sealed. The 260 MW of refurbished gas turbines provide peaking capacity at a cost materially less than new-build peakers, utilizing existing brown field infrastructure (electric and gas transmission, building and emission stacks).

In addition to eliminating the need for once-through sea water cooling for the new rapid start combined cycle plants proposed by NRG West, the 10 hour heating cycle needed to start the old boilers is replaced by generating equipment that can be on-line within 10 minutes of dispatch. This feature of rapid start provides important shaping and firming services to support the solar, wind, and other renewable generators now on or expected to connect to the electricity grid.

This statement from the California Energy Commission in its adopting Order on June 30, 2010 for the changes to the El Segundo Power Redevelopment Project highlights the benefits of an orderly transition from sea-water cooled steam boilers to the emergent rapid response air cooled gas turbine technology now under construction:

"The change will be beneficial to the public because the new facility would make the project considerably more efficient and more flexible from an operational standpoint. The new low-emission, dry-cooled combustion turbine equipment significantly reduces air pollutants from the combustion process, and will decrease environmental impacts. The rapid start capability also complements wind and solar renewable generation by providing reliable localized generation that can quickly respond should wind or solar resources not be available during peak electrical demand periods."

Until the repowering is completed at El Segundo, existing Units 3 and 4 are expected to operate at less than a 15% capacity factor for up to 670 MW, using minimal sea water pumping except when operating. During operations when called upon by the CA ISO, SCE or required by market conditions, each unit uses approximately 198 million gallons per day. When both units are running, pumps circulate 396 million gallons per day.

Encina Power Station

NRG West filed an Application For Certification on September 14, 2007, with the California Energy Commission for the Carlsbad Energy Center Project, CEC Docket 07-AFC-06, to repower the three oldest Encina Generating Station steam boiler units 1, 2, and 3 (circa 1950's producing 103.5 MW, 104 MW, and 110 MW, respectively, for a combined output of 317.5 MW) with a rapid response combined cycle technology similar to the amended El Segundo Power Redevelopment Project. The Final Staff Assessment recommending approval of the Project was filed November 12, 2009, and public evidentiary hearings were conducted in February 2010. Briefs have been submitted by all parties, and a Proposed Presiding Member's Decision is expected in the next couple months. The new units would use approximately the same amount of natural gas as the three boilers to be retired, producing substantially more electricity, and eliminate the once-through sea water cooling for the three retiring boilers (approximately 225 million gallons per day).

Until the repowering is completed at Encina Station, existing Units 1-5 are expected to operate at less than a 15% capacity factor for up to 950 MW, using minimal sea water pumping except when operating. During operations when called upon by the CA ISO or SDG&E, the use of sea water for cooling varies by size of unit; the permitted flow at maximum operating output for the Station is 863.5 million gallons per day; with the closure of Units 1-3, the maximum operating output from Units 4 and 5 is reduced to 287 MW and 315 MW respectively for combined generation of 602 MW, and maximum sea water flow required would be 638.9 million gallons per day (total discharge including storm water and low flow discharge), the sea water flow required for Unit 4 is 306.7 million gallons per day, and for Unit 5 is 325.7 million gallons per day.

Repower Regulatory Delays

The process for repowering the legacy steam boilers located along the California Coast is subject to a siting process often delayed by CEQA concerns. NRG West has demonstrated repeatedly its good faith effort to accomplish California policy goals for achieving energy efficiency, air quality improvements, reduction or elimination of once-through sea water cooling, switching from potable water to reclaimed water, and reducing the profile and visual impacts from its coastal power plants. At the same time NRG West through its affiliates has provided significant contributions to solar energy development for utility scale projects in an effort to achieve the Renewable Portfolio Standards (RPS) goals.

The reality for California's electric grid is that RPS-compliant generating equipment lacks the reliability component required to assure dependable electricity for all hours. It is uniquely susceptible to interruptions in energy supply from extreme heat events, as the wind regime reverses the normal flow patterns during Santa Ana wind periods in later summer and fall. Large desert solar generation projects will be located at distances from the coastal loads, and are intermittent resources. Fire season, occurring at about the same time, brings the additional concern for transmission line interruption. Each MW of renewable generation requires nearly the same generation back-up from gas-fired generators. While the gas boilers are operating much less than when they were first installed, when they are needed, they are absolutely essential for grid stability. The amended OTC Policy should provide for an orderly transition for the OTC steam boilers to address the fundamentals of grid reliability and energy security for all of California.