Once Through Cooling Deadline: 9/15/06 5pm



California Independent System Operator Corporation

September 15, 2006

Members of the State Water Resources Control Board State Water Resources Control Board Division of Water Quality 1001 I Street Sacramento, CA 95814 Attn: Song Her, Clerk to the Board



Re: Comment Letter - Proposed Statewide Policy for Once-Through Cooling

Dear Members of the State Water Resources Control Board:

This letter is in response to the State Water Resources Control Board's (SWRCB) request for comments regarding "Proposed Statewide Policy on Clean Water Act Section 316(b) Regulations."

## Introduction

The California Independent System Operator (CAISO) is a not-for-profit public benefit corporation organized under the laws of the State of California. The CAISO is responsible for managing the flow of electricity and maintaining the reliable operation of the electricity transmission grid for the majority of the state of California. The mission of the CAISO is to safeguard the reliable delivery of electricity and ensure equal access to over 25,000 circuit miles of "electron highway" under the CAISO's operational control. This electron highway connects California with neighboring states as well as British Columbia and Mexico.

The CAISO and all other western area control operators are required to plan and operate the power grid in compliance with the North American Electric Reliability Council and Western Electricity Coordinating Council requirements. The importance of this obligation was made evident in the Energy Policy Act of 2005, which made these requirements enforceable through new regional and a national reliability organization. Noncompliance leads to financial penalties in addition to the degradation of reliability of the western grid and environmental, economic, and social harm.

The CAISO operates the power grid utilizing the existing generation resources to maintain system reliability. It is the operation and planning of the power grid that puts the CAISO in the unique position to speak about the affect to electrical reliability from the SWRCB's proposed policy on Section 316(b) regulations on power plants.

## Possible Adverse Reliability, Environmental and Economic Impacts

The CAISO has reviewed the list of power plants that are subject to the proposed Section 316(b) regulation and offers the following observations. The policy will essentially require existing power plants to retrofit to a cooling tower or they will no longer have a valid water permit and be forced to retire. Either scenario has a negative impact on the amount of generation available to meet the electricity needs of California. In the case of a cooling system retrofit, the facilities will produce less energy, be less efficient, and may have to run longer to recover the retrofit costs. Alternatively, if the power plant retired before new generation is available, it could result in adverse impacts on public health and safety and the economy due to insufficient generation to meet all the electricity needs of California. The current proposed regulation does not contain provisions that account for mitigating these significant adverse impacts.

We offer the following scenarios to highlight the possible unintended consequences of the proposed Section 316(b) regulation.

- First, the amount of generation that these power plants represent is significant and represents up to approximately 37% of the capacity in the state all of which allows CAISO to maintain reliable operations by providing local capacity, ancillary services, voltage support, and reducing congestion. These plants are key to meeting the electricity needs of California. Reduction in capacity due to the proposed Section 316(b) regulation will impact our ability to meet the state's reliability mandate.
- Second, the location of these power plants is important to maintaining the reliability of the power grid. In fact, generation from 9 of the 21 listed power plants is necessary to maintain local reliability and the CAISO has contracted with this generation (Reliability Must Run Agreements) to make sure that it is available when needed at a reasonable cost to ratepayers. This generation is needed today for local reliability which cannot be served if the units are taken off line for a long period of time for a retrofit, have their capacity lowered significantly, or are forced into an unanticipated accelerated retirement.
- Third, just to keep pace with the increase in demand for energy in California, approximately 1,000 MW of new generation must be added each year before accounting for the retirement of aging facilities. Thus, any decrease in output from existing power plants, either through imposition of retrofit requirements or forced retirement, must be accounted for in resource planning. Existing generation should not be removed without new generation online to replace it because there is not enough margin in California's existing generation portfolio to allow for such a decrease and still be equipped to meet the electricity needs of California.
- Fourth, the CAISO and the California Energy Commission are currently conducting a study on our aging generation fleet so that California can incorporate the retirement of this generation into its forecast and plan for the new generation that will be necessary to replace retiring facilities. The CAISO believes that it is important to develop a plan that focuses on the retirement of less efficient plants and the development of more efficient, less expensive to operate, and more environmentally friendly generation located in strategic

areas. However, while that plan is being developed and implemented it is critical to reliability that existing generation remains available until such time as it is replaced with the appropriate new generation.

- Fifth, the Department of Energy released a study last month regarding the state of the electrical system in the entire United States. U.S. Department of Energy, *National Electric Transmission Congestion Study*, August 2006. The study found that the Bay Area and Southern California are two of the most critically congested areas in the entire nation. Looking at the list of potential power plants affected by the proposed policy of the SWRCB, the majority of the units are located in these critically congested areas. Loss of these units or decreased capacity due to the proposed Section 316(b) regulation would significantly compound the congestion problems in these areas and impact the CAISO's ability to maintain the reliability of the power grid.
- Finally, the timing of any proposed regulation implementation is critical, as forcing immediate compliance could jeopardize reliability. One of the lessons learned from the energy crisis in California is that the coordination and approval of generation and transmission outages are critical to the reliability of the power grid and to the integrity of the market. The CAISO administers outage coordination for the CAISO Control Area. Routinely, maintenance is performed during the "shoulder months" in the late fall or early spring where demand for energy is at it's lowest. The outage coordination that would be required in retrofitting up to 37% of the installed generating capacity in California would impose extreme difficulty and will be a hazard to the operation of the grid in California and throughout the West. The coordination required today, given the limited availability of generation, is a difficult challenge. The coordination challenge proposed by the proposed Section 316(b) regulation would be immense and perhaps impossible under the best of implementation plans. A unit undergoing such a retrofit would be unable to come back on line should an electrical emergency occur. The remaining 63% of the generation fleet, which is not sufficient to meet the electricity demands of California, could be forced to operate outside their manufacturer's warranties and thus be more vulnerable to catastrophic failures that would jeopardize electric service reliability even further.

## Conclusion

California and the Western United States recently faced a heat wave that stretched resources to unprecedented limits. While California avoided blackouts, the heat wave and extraordinary electricity demand highlighted the need for California to invest in infrastructure. The CAISO urges the SWRCB to develop a careful, comprehensive approach to achieving its water quality objectives that mitigates adverse impacts on electric system reliability, the environment and the economy. In particular, attention to reliability consideration is essential in order for the CAISO to continue to comply with federal and regional reliability requirements. The CAISO is concerned that if a policy is not implemented properly, the CAISO will not be able to serve the electricity demands of California.

We look forward to working with you and offer our assistance as this proceeding moves forward.

Please do not hesitate to contact either of us or Mary McDonald, Director of State Affairs, at (916) 802-3576 with questions or concerns.

Kind regards,

Jim Detmers

Vice President, Operations

Armando J. Perez

Vice President, Planning

and Infrastructure Development

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cc: Mary McDonald