BEFORE THE
ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of:

Rulemaking to Consider Modification of Regulations Establishing a Greenhouse Gases Emission Performance Standard For Baseload Generation of Local Publicly Owned Electric Utilities

Docket No. 12-OIR-1

REDDING ELECTRIC UTILITY REPLY COMMENTS ON REVISING THE CURRENT EMISSION PERFORMANCE STANDARD

Introduction

Redding Electric Utility (Redding) is a publicly owned electric utility that has been serving the electricity needs for the City of Redding since 1921. Redding has a variety of resources in its portfolio mix including wind, large and small hydro, solar, and natural gas. Redding offers these comments in response to Chairman's Weisenmiller's August 31, 2012 Request for Reply Comments regarding whether to make any changes to the emissions performance standard (EPS) to carry out the requirements of Senate Bill (SB) 1368.[1]

Redding strongly believes the EPS should not be lowered, as there is no reason to adjust the standard to meet the requirements of SB 1368. Decreasing the EPS would dramatically affect existing power plants in the State that are designed to support California's load. Operators of these facilities already face increased costs associated with meeting the objectives of California's green energy agenda, and a reduced EPS will only add to those costs without providing any added benefit to the state.

[1] In these comments, Redding focuses on these two specific technical inquiries. However, Redding fully supports the legal, policy, and technical issues raised in the comments of the M-S-R Public Power Agency and the Northern California Power Agency.

Background

Redding owns and operates the Redding Power Plant (Redding Power), an 185 megawatt (MW) natural gas electricity generating facility that was constructed incrementally to provide peaking power and base load generation as the community's need for power has grown. Redding Power is capable of providing up to 73% of the community's energy demand, however in order to incorporate Redding's renewable resources, spare capacity from Redding Power is available and sometimes sold to the California grid. In 1991, Redding obtained the natural gas-fired, 28 MW steam turbine Redding Power Plant. In 1993, the City added three combustion turbines, with a summer rated combined capacity of 61 MW and a winter rated capacity of 72 MW. These three units – which included state-of-the-art criteria pollutant emission control technology – were designed primarily for load-following and peaking purposes in order to meet Redding's extreme summer temperatures and to serve as a source of power when needed for emergencies.

In June 2002, Redding placed into commercial operation a 43 MW combustion turbine to operate in combined cycle with the existing steam turbine. This unit was built, again using the most efficient state-of-the-art criteria pollutant emission control technology at the time, soon after the California Energy crisis as Redding saw the benefits of having owned generation to serve the community's needs. In 2009, this unit underwent a multi-million dollar overhaul that resulted in an increase in generation capacity and carbon emissions efficiency.

In response to an increased need for generation, in 2011, a 45 MW combustion turbine was placed into commercial operation to operate in combined-cycle with the existing steam turbine. This unit was built with the more efficient state-of-the art criteria pollutant emissions control equipment available for carbon emissions at the time.

With the installation of the combined-cycle base load units, the combustion turbine generators operate in combined-cycle to provide steam to the existing steam/generator, thus replacing the steam output of both boilers.

The phased-in construction of the Redding Power Plant was approved through a very public process, consistent with the many public meeting and notice requirements under which Redding, as a publicly owned electricity utility (POU), operates. This included multiple City Council discussions on all aspects of the project, from bid issuances to and construction approvals.

Redding's Response to the Specific EPS Inquires

With the limited amount of time available to Redding to provide comments, it is not possible for Redding to do a full and complete analysis of all the operational issues and parameters that would be implicated by a reduced EPS. However, in the interest of providing the Commission with an example of the type of impacts that entities will face, Redding offers the following information.

1. "Given that the EPS applies to natural gas plants that are designed and intended to operate as baseload facilities, the Energy Commission seeks input on how many of California's natural gas fired power plants would be affected by a lower EPS, such as in the range NRDC & Sierra Club have suggested [825-850 lbs/MWh, with potentially a higher EPS for smaller facilities]."

Redding Power's combined-cycle operations currently meet the 1,100 lbs CO_2/MWh requirements, but would not be able to meet an 850 lbs/MWh threshold proposed by NRDC and Sierra Club. Despite their assertions that it would be cost-effective to implement changes that would enable the facility to meet this lower EPS,[2] Redding's review of its power plant do not support this.

Coupled with the increased costs that all electric generators face to comply with the suite of GHG reducing measures adopted across the state, the fiscal implications to Redding of being forced to make any changes to Redding Power are significant.[3]

2. "Energy Commission is interested in receiving input on the extent to which a lower EPS may impact the design or ability of natural gas plants to operate more flexibly for integrating renewable resources, since the cycling of these plants entails lower efficiencies and requires fast ramp capabilities, and thereby a potential increase in emissions."

A lower EPS will certainly impact the ability of Redding Power to facilitate the delivery of renewable resources into the State. The Redding Power Plant's peaking units have the ability to load follow, which would be beneficial towards the integration of renewable resources. Since operating these units to provide load following for renewable resources would likely result in increased emissions, it is not likely that Redding's facilities would be able to be utilized in this manner. This could result in increased costs associated with the need to look to other sources to firm the renewable energy.

Additionally, the lower EPS would create pressure to build larger facilities, since those are more likely to be able to achieve an 825 to 850 lbs/MWh standard. For example, an 850 lbs/MWh limit is approximately equivalent to 7200 BTU/KW heat rate. This will generally be achieved by a much larger generating unit, such as 500 MW since in order to achieve this level of heat rate you have to incorporate a higher pressure/temperature steam cycle with reheat and multiple feedwater heaters. Thus, reducing the EPS to 850 lbs/MWh would limit California to only being able to build large natural gas combined cycle units. However, a one-size-fits-all approach is not

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[2] NRDC and Sierra Club July 27 Comments.

[3] For example, with the adoption of Assembly Bill 32 and implementation of the Cap-and-Trade Program by the California Air Resources Board, Redding is now required to acquire emissions allowances. This compliance obligation is projected to be up to 110,000 carbon allowances each year. Even if the allowances are all purchased at the floor price, this will result in total compliance obligation cost of over $1 million per year, which will be borne by the City's businesses and residents.

in the State's best interest, as smaller units, such as Redding's peaking units, are needed for general, as well as renewable, system support as well.

Conclusion

Redding appreciates the opportunity to provide the Commission with this information regarding the significant detrimental impacts that a lower EPS will have on its electric generation operations. Redding believes that other POUs across the state will be similarly impacted. Assuming that any changes to the EPS are made in accordance with the provisions of SB 1368 that require consistent standards for the POUs and retail sellers,[4] the adverse impacts on the State would be multiplied. Most importantly, the requested change is totally unnecessary to meet the requirements of SB 1368, and in fact, retaining the current standard as-is better facilitates achievement of the State's overall greenhouse gas reduction goals.

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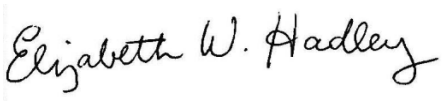
Respectfully submitted,



Elizabeth W. Hadley,
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[4] Public Utilities Code section 8341(e)(1).