

Middle River Power

Comments on Discussion Draft of Potential Changes to the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear

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Middle River Power (“MRP”) is an owner, operator and investor in utility-scale power plants in California and elsewhere in the United States. MRP’s California portfolio includes both combined cycle and simple cycle natural gas power plants that are used to maintain system reliability and integrate renewable energy resources. MRP also owns geothermal facilities and is developing a large solar project in California. In this proceeding, MRP seeks to provide its perspective of how the existing SF₆ Regulation and the Discussion Draft would affect the operations of power plants in California, particularly those needed to maintain system reliability and integrate a growing amount of renewable energy resources.

In preparing these comments, MRP investigated the use of SF₆ at the various facilities in MRP’s California portfolio. MRP consulted with vendors to evaluate the feasibility and potential cost of switching to alternatives to SF₆ currently used in Gas Insulated Equipment (“GIE”). Most of MRP’s plants may exceed the proposed de-minimis threshold. It is not clear yet whether switching to an alternative technology would be feasible from a technical standpoint. For example, switching to a vacuum technology could pose safety concerns at high-voltage facilities. Vacuum technologies can also be costly to operate due to the power needs of the vacuum technology. There may be other options, including alternative gas blends, but we are very concerned about the potential cost of these alternative technologies. At a single, large power plant, MRP estimates the installed cost of the alternative gas to be \$2,000,000 - \$3,000,000. These costs will be significant for power plant owners and will raise questions about whether power plant owners have a mechanism for recovering the costs of the proposed SF₆ phase-out.

The ARB should take more time to consider the potential implications of the proposed phase-out. MRP understands the goal of addressing all sources of emissions, particularly those with high global warming potential, but it is also important to consider the context of the emissions. It is MRP’s understanding that historic releases of SF₆ at power plants have been very low and generally within the specified emissions limits. Moreover, the power plant sector represents a small percentage of the overall, statewide capacity of SF₆. Unlike transmission and distribution system operators, power plant owners cannot rate-base the costs of complying with an SF₆ phase out. In the aggregate, we believe the costs to the power plant sector alone could be more than \$50,000,000. Before setting a stringent 2019 baseline year for the nameplate capacity determination, the ARB should take more time to work with power plant owners and evaluate the path to compliance with the 1% emissions threshold.

The proposed nameplate capacity determination with a 2019 baseline year is of particular concern. As proposed, the nameplate capacity determination would not enable the replacement of existing SF₆ cannisters or installation of new SF₆ cannisters after 2019. To add or replace SF₆ capacity, a generator would need to seek a technical exemption. The technical exemption would not account for cost and instead solely focus on whether the use of an SF₆-alternative is feasible from an engineering standpoint. The 2019 baseline year is problematic because it will not account for planned facility upgrades or new facilities coming online after 2019. The 2019 baseline is also problematic because it may inhibit an operator’s ability to quickly replace SF₆ cannisters in the normal replacement cycle or when a cannister

needs to be taken out of service early. The ability to quickly replace SF₆ cannisters is critical to ensuring that operators can keep their plants available to the CAISO for system reliability purposes.

In addition, to delaying the implementation of a 2019 baseline year, the ARB should also re-evaluate the de-minimis threshold. While we do not have a specific proposed threshold to recommend at this time, it is important to avoid setting a threshold arbitrarily. If, as suggested by the ARB that approximately 50% of the regulated entities are below the 5,500 MTCO₂(e) threshold, then what is the rationale for including similarly situated entities above the threshold? One way the Regulation could be structured to avoid treating similarly situated entities differently would be to allow reporting entities to have the option to establish their baseline capacity at the generating unit level.

Finally, if more than 90% of the statewide SF₆ capacity is concentrated among the largest transmission and distribution operators, the ARB should consider simply focusing the regulation on those entities going forward. The ARB should still require reporting and record keeping by power plant owners to ensure that aggregate SF₆ levels remain within the established emissions targets (i.e., as proposed in the Discussion Draft). New generation could be subject to the phase out requirement, which over time would phase out SF₆ without imposing new costs on existing generation facilities. From a system-wide basis, this would be the most cost-effective approach to phasing out the majority of SF₆ capacity in the electricity sector.

MRP looks forward to working with the ARB to better understand the implications of the proposed Regulatory Amendments and ensure that the SF₆ Regulation meets its environmental goals in a cost-effective manner. MRP is also available to meet with ARB staff to discuss the specific implications of the Discussion Draft on its power plants.

Respectfully submitted,

/s/

Joe Greco
Senior Vice President, Asset Management
Middle River Power