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Comments on December 2, 2020 Workshops on Incremental Efficiency Improvements to the Natural Gas Powerplant Fleet

Additional submitted attachment is included below.

MIDDLE RIVER POWER

December 16, 2020

California Energy Commission
Docket Unit, MS-4
Docket No. 20-SIT-01
1516 Ninth Street
Sacramento, California 95814-5512

Via electronic submittal

Dear Docket Unit, Commissioners and Commission Staff:

Middle River Power, LLC ("MRP") is pleased to submit these comments on the December 2, 2020 workshops on Incremental Efficiency Improvements to The Natural Gas Powerplant Fleet for Electric System Reliability and Resiliency.

MRP owns approximately 2 GW of natural gas-fired generation operating within the bulk power system under the operational control of the California Independent System Operator Corporation ("CAISO"). MRP has developed is currently deploying two battery energy storage systems ("BESS") totaling 110 MW and a 100 MW (nameplate) solar photovoltaic system at MRP-owned generating plants; these projects, which are slated to come on-line in 2021, will help ease California's current capacity challenges.

The heat wave events in August and September, in particular the Stage 3 load shedding events on August 14 and 15, testify that California's resource adequacy ("RA") programs have not kept pace with the operational challenges brought on by the increased reliance on use-limited variable energy resources (VERs) and the retirement of conventional use-unlimited resources, both within California and outside of California within the Western Interconnection. As a result, California finds itself both with an immediate need to secure additional reliable and dispatchable capacity and with an urgent need to reconsider fundamental aspects of its RA programs.

MRP thanks the Commission for facilitating the December 2, 2020 workshop, which focused on the immediate need for additional capacity. MRP respectfully provides these comments on topics discussed at the workshops.

First, MRP strongly concurs with comments made at the workshop that, in addition to efforts to consider new capacity, California must at this time also ensure that all existing generating resources are under contract and committed to serving California demand. MRP notes that analysis in the SB 100 draft report does not retire any existing gas-fired generation ("GFG") capacity prior to 2030, retires 4 GW of GFG in 2030 only in the "100% in 2030" scenario, and does not retire any GFG until after 2035 in the "core" analysis. Moreover, GFG carried California through the August and September heat waves, providing more than half of the energy serving load across the high-stress conditions, and it remains poised to help California maintain reliable and affordable electric service even as renewable generation continues to expand is support of California's decarbonization goals. Ensuring that existing generation is contracted

for across the near- to mid-term time horizon commits that generation to California and smooths out major maintenance costs (avoiding the kind of disruptions that gave rise to the CAISO's need to use its backstop authority in 2018). While MRP supports considering new incremental capacity from the existing fleet, California should not chase MW that do not exist while neglecting MW that do.

Second, MRP strongly supports aggressive consideration of hybridizing existing gas plants by adding battery energy storage. Hybridization can:

- Replace capacity lost to ambient de-rates and station service supply. As the Preliminary Root Cause Analysis notes, much of the GFG capacity lost during the August heat waves was lost due to ambient de-rates brought on by hot temperatures;

- Bring about significant environmental benefits, including to Disadvantaged Communities ("DACs"), by cutting down the number of gas-fired generating unit starts. MRP notes that a significant portion of the recent runs associated with its gas turbine peakers were for less an hour; start-ups for these sub-hour runs can be avoided altogether by adding a modest amount of battery energy storage;

- Allow these hybridized sites to provide needed CAISO ancillary services (*e.g.,* spinning reserve) without combustion; only if the CAISO requires energy beyond the battery duration is it necessary to start up the gas turbine;

- Take advantage of existing interconnection capacity on brownfield sites; and

- Accelerate deployment through the CAISO Material Modification Assessment ("MMA") process instead of requiring a new interconnection.

But such hybridization with short-duration batteries faces this key challenge: it does not add additional Resource Adequacy ("RA") Net Qualifying Capacity ("NQC") unless more expensive four-hour batteries are deployed and additional interconnection capacity is available. In MRP's experience, load-serving entities are reticent to fund such projects, the significant other benefits notwithstanding, unless new incremental RA NQC results.

To realize the significant benefits of hybridization, MRP respectfully urges the Commission, working with the California Public Utilities Commission ("CPUC"), to create the necessary pathways for the rapid deployment of such hybrid systems. In the past, California has turned to procurement mandates, like the storage procurement mandate enacted in D.13-10-040, to catalyze the development of technologies that have helped California achieve its decarbonization and reliability policy goals. Given the considerable environmental and reliability benefits of gas hybridization projects, the CPUC should also adopt procurement mandates for gas hybrid projects. These procurement mandates should be modest but sufficient to catalyze the deployment of these projects where they bring the most benefit, such as in DACs. These projects will provide, in relatively short-order, (1) firm RA capacity across the coming decade by ensuring the existing associated gas-fired generating capacity is maintained but its operation is minimized; (2) additional CAISO ancillary service capability with a reduced need for

combustion, and (3) the significant GHG reduction and environmental benefits that come with (1) and (2).

In conclusion, MRP respectfully urges California policymakers to (1) ensure that the critical need to contractually secure existing generation is not lost in the search for new capacity and (2) embrace the "win-win" offered by gas generation hybridization by adopting a procurement mandate that provides the necessary impetus for load-serving entities to contract with these projects.

Respectfully submitted,

/s Brian Theaker

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