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Middle River Power LLC Comments on Mid-Term Reliability Analysis

Additional submitted attachment is included below.



October 4, 2021

California Energy Commission
Docket Unit, MS-4
Docket No. 21-ESR-01
1516 Ninth Street
Sacramento, California 95814-5512

Via electronic submittal

Dear Docket Unit, Commissioners and Commission Staff:

Middle River Power LLC (“MRP”) appreciates the opportunity to submit these comments on the Mid-Term Reliability Analysis (“MTRA”), as presented at the September 23, 2021 *Staff Informational Workshop on Midterm Reliability Modeling*.¹

Introduction

MRP owns approximately 1.8 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 and is currently deploying with the current owners two battery energy storage systems (“BESSs”) totaling 110 MW and a 100 MW solar photovoltaic system connecting into the same interconnection facilities at MRP-owned generating plants. MRP is also in the process of developing approximately 1 GW of other BESS projects.

Comments

The MTRA Report notes that one of the primary questions the MTRA was intended to answer is: “Whether incremental thermal resources provide an additional system reliability benefit compared to a portfolio of zero-emitting resources.”² The answer, according to the MTRA’s Executive Summary, is “The reliance on zero-emitting resources does not appear to diminish reliability compared to procuring thermal resources.”³ While this conclusion is somewhat “hedged” and “softened” by the phrase “does not appear to”, the discussion of this finding in the MTRA is considerably more nuanced and less conclusory.

The MTRA Report notes:

¹ Information for this Mid-Term Reliability Analysis (“MTRA”) workshop is available at <https://www.energy.ca.gov/event/workshop/2021-09/staff-informational-workshop-midterm-reliability-modeling>. The presentation for this workshop, which MRP will refer to as the “MTRA Presentation” in these comments, is available at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=239944&DocumentContentId=73391>. The Staff MTRA Report, which MRP will refer to in these comments as the “MTRA Report” is available at <https://efiling.energy.ca.gov/GetDocument.aspx?tn=239881&DocumentContentId=73322>.

² MTRA at page 2.

³ *Id.*

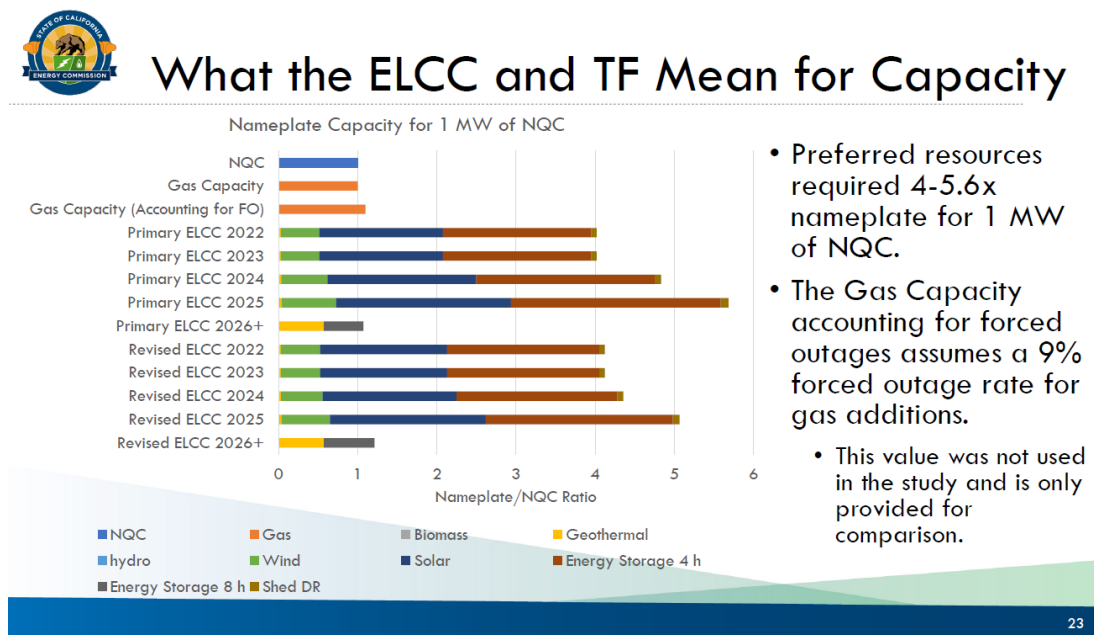
“The scenarios with a thermal capacity NQC equivalent to replace the new zero-emitting resources, resulted in a slightly higher LOLE. *Additional work is needed to determine if this performance difference is attributable to the specific technologies, the qualifying capacity methodology used to compare the resources on an NQC basis, or if adjustments to the model are necessary to better compare the resources in an equivalent manner.*”⁴

Unlike the conclusory statement in the Executive Summary, the discussion in the report, albeit brief, acknowledges the uncertainty regarding the conclusion.

The MTRA report goes on:

These scenarios illuminate that many technology types can support system reliability, *should there be enough capacity procured*. These scenarios do not indicate that a portfolio consisting of zero-emitting or thermal resources are in and of themselves inherently less reliable.⁵

The MTRA Report’s conclusion on this question, focused on reliability as measured by the Loss of Load Expectation (“LOLE”) metric, hints at but does not elaborate as to how much zero-emitting resources are required to replace an “equivalent” amount of gas-fired generation capacity. Slide 23 in the MTRA Presentation, however, makes that clear:



As this slide notes, the MTRA concluded it takes 4 to 5.6 times the amount of nameplate capacity of zero-emitting resources to provide LOLE performance equivalent to the same amount

⁴ MTRA Report at page 13 (emphasis added).

⁵ MTRA at pages 13-14 (emphasis added).

of nameplate capacity of gas-fired generation. While, on its face, this disparity is notable, the MTRA does not try to compare the costs of the zero-emitting resource portfolio to the cost of the gas-fired generation portfolio that provides the same reliability benefit. Nor does the MTRA delve into, or even acknowledge, other pertinent issues that would inform the comparison, such as the land and transmission needed to deploy that amount of zero-emitting resource capacity.

A number of parties that submitted comments on California Public Utilities Commission (“CPUC”) Administrative Law Judge Julie Fitch’s August 17, 2021 *Administrative Law Judge’s Comments on Proposed Preferred System Plan*⁶ addressed the MTRA’s conclusion that gas was less reliable than an NQC-equivalent portfolio of preferred resources. For example, the Southern California Edison Company (“SCE”) noted that “...the CEC’s conclusion that the preferred resource portfolio is as, or more reliable than, an “equivalent” gas portfolio is largely driven by the methodology used to construct the equivalent gas portfolio. Specifically, this finding is influenced by the simplifying assumption that one MW of preferred resources, as determined on a marginal ELCC basis, is equivalent to one MW of gas, as determined on a nameplate capacity basis.”⁷

Wärtsilä North America, Inc. noted that, as California Energy Commission staff have acknowledged, the capacity of the gas portfolio used in the MTRA analysis did not factor in forced outage rates; consequently, “...this assumption does not allow for an “apples-to-apples” comparison across the modeled portfolios.”⁸

Similarly, the Southern California Gas Company observed that the MTRA used an “underbuilt” portfolio of thermal generation that did not account for those resources’ forced outage rate, also buttressing the conclusion that the thermal portfolio was less reliable.⁹

MRP is concerned that, given how the MTRA results were presented, parties are using the MTRA to superficially conclude that zero-emitting, duration-limited resources provide the same reliability as “an equivalent amount of NQC” of gas-fired generation without fully appreciating (1) that California Energy Commission staff acknowledge that additional work on this topic is necessary to fully understand the model results¹⁰ and (2) the relevant other factors (amount of nameplate capacity, cost, and other issues) that must be considered to make this an “apples to apples” comparison. The initial statements in the Executive Summary, though hedged, do not fully acknowledge the complexity of this issue.

⁶ The ALJ Ruling is available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M399/K450/399450008.PDF>.

⁷ *Southern California Edison Company’s (U-338-E) Comments on Administrative Law Judge’s Ruling Seeking Comments on Proposed Preferred System Plan*, submitted September 27, 2021 in CPUC Rulemaking R.20-05-003, at page 25. These comments are available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M410/K194/410194704.PDF>.

⁸ Wärtsilä North America, Inc. Comments on the Preferred System Plan, submitted September 27, 2021 in CPUC Rulemaking R.20-05-003, at pages 11-12. These comments are available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M409/K972/409972024.PDF>.

⁹ *Comments of Southern California Gas Company (U 904 G) on Administrative Law Judge’s Ruling Seeking Comments on Proposed Preferred System Plan*, submitted September 27, 2021 in CPUC Rulemaking R.20-05-003, at pages 2-3. These comments are available at <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M409/K972/409972001.PDF>.

¹⁰ See FN 4.

Conclusion

MRP appreciates staff's effort to produce the MTRA, which is a very thorough investigation of mid-term reliability issues that helps support critical discussions about California's electric sector. MRP appreciates even more staff's engagement with MRP to take and answer questions on this analysis. The MTRA is a very positive analytical step on the road towards California's decarbonized future. Nevertheless, MRP wishes to respectfully share its concerns about how the MTRA presents the findings in a way that understates the multi-faceted complexity of the answer to the question about whether zero-emitting resources are as reliable as gas-fired generation.

Respectfully submitted,

/s Brian Theaker

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