BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of the Application of Southern California Edison Company (U338E) for a Permit to Construct Electrical Substation Facilities with Voltage over 50 kV: Mesa 500 kV Substation Project	Application 15-03-003 (Filed March 13, 2015)

REPLY COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION ON THE PROPOSED DECISION

I. Introduction

Pursuant to Rule 14.3 of the California Public Utilities Commission's (Commission) Rules of Practice and Procedure, the California Independent System Operator Corporation (CAISO) files these reply comments on the Proposed *Decision Granting Permit to Construct the Mesa 500-kV Substation Project* (Proposed Decision). As stated in its opening comments, the CAISO fully supports the Proposed Decision, which appropriately identifies Southern California Edison Company's Mesa Substation project (Proposed Project) as the only feasible option to meet project objectives. The Bay Area Municipal Transmission Group (BAMx) filed opening comments recommending that the Commission reject the Proposed Decision due to alleged legal and technical errors. BAMx claims that the Proposed Decision errs in (1) finding the Proposed Project feasible while rejecting the Final Environmental Impact Report's Alternatives 1 and 2 as infeasible; (2) accepting technical analysis that that is not "consistent with state law"; and (3) certifying the Final Environmental Impact Report. In each case, BAMx fails to identify factual, legal or technical errors in the Proposed Decision, but rather continues to make assertions that lack an evidentiary basis.

II. Discussion

A. The Proposed Project is Electrically and Technologically Feasible Based on The CAISO's Analysis.

As it argued in its Opening Brief, BAMx again asserts that the Proposed Project does not address all the reliability concerns identified in the CAISO's 2015-16 Transmission Plan.[1] As the basis for this statement, BAMx cites the CAISO's testimony and the 2015-2016

[1] BAMx Opening Comments, p. 3.

Transmission Plan, which identified a potential thermal overload on the Mesa-Laguna Bell #1 230 kV line under P6 or P7 contingencies.[2] BAMx argues that this issue renders the Proposed Project infeasible by equating this single potential overload with the reliability issues the CAISO identified with Alternatives 1 and 2.[3] This is not a logical interpretation of the CAISO's technical analysis. The Alternative 1 and Alternative 2 thermal overloads occur during P0 system conditions and in a host of different contingency event scenarios. This is important because the CAISO cannot use a remedial action scheme (RAS) to address thermal overloads that occur during P0 conditions (*i.e.*, with all transmission elements in service). Thermal overloads that occur as a result of contingency events can potentially be addressed by a RAS, though a RAS is a sub-optimal mitigation strategy because it will potentially curtail renewable generation.

Furthermore, the 2015-2016 Transmission Plan has already identified a low cost, feasible mitigation to the Proposed Project, which notably does not include a RAS, to address the identified reliability issue. Specifically, the 2015-2016 Transmission Plan notes that "installing 10-Ohm series reactors on the Mesa-Laguna Bell #1 230 kV Line and potentially the Mesa-Redondo 230kV line in the future (*i.e.*, the third option listed above) appears to have the least impact to the system under contingency condition and potentially have the lowest cost."[4] A similar mitigation is not feasible for Alternative 1 and Alternative 2 because, as the CAISO analysis shows, multiple transmission elements will be overloaded (*i.e.*, not just the Mesa-Laguna Bell #1 230 kV line, as implied by BAMx).[5] BAMx cites no evidence that the multiple overloads under Alternative 1 and Alternative 2 can be mitigated while preserving the small substation footprint (and attendant environmental benefits).

Based on the foregoing, Alternatives 1 and 2 clearly do not meet North American Electric Reliability Corporation (NERC) planning standards, and there is no feasible mitigation that would make either Alternative compliant with NERC planning standards. In contrast, the Proposed Project is compliant and will mitigate thermal overloads without instituting a RAS.

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[2] BAMx Opening Comments, p. 2-3; Tr. at 22:17-28 (Sparks); Exhibit BAMx-02, p. 42 (of .pdf version).
[3] BAMx Opening Brief, p. 9.
[4] Exhibit BAMx-02, p. 6.
[5] Exhibit CAISO-01, p. 6-7 (Table 1); p. 9-10 (Table 2); BAMx Opening Brief, p. 9; BAMx Opening Comments, p. 3.

B. The Proposed Decision is Consistent with State Law and Commission's Directives for Transmission Planning.

BAMx asserts that the CAISO's technical analysis is not consistent with state law because it models renewable resources using the Commission's existing resource counting methodology rather than the Effective Load Carrying Capacity (ELCC) that is currently under development. Put simply, BAMx provides no basis as to why the Commission should use the ELCC methodology to review the feasibility of project alternatives. The ELCC methodology is still under development and the Commission has consistently directed the CAISO to use the current exceedance methodology in its transmission planning analysis. As a result, the Proposed Decision appropriately uses the CAISO's technical analysis to review project alternatives.

The CAISO's technical analysis considers renewable generation that is built (or will be built by 2021) and dispatches those resources at their net qualifying capacity (NQC). The CAISO modeled renewable generation at NQC based on the Commission's directives adopted in an Assigned Commissioner Ruling on assumptions and scenarios for use in the CAISO's transmission planning process.[6] This Ruling specifically notes that "[r]esources should be accounted for in terms of their most current net qualifying capacity (NQC)."[7] More recently, the Commission reaffirmed that the CAISO should continue to use the current exceedance methodology (rather than ELCC) to model renewable resources in the 2016-2017 transmission planning process.[8] The CAISO's technical analysis follows the Commission's directives, while BAMx's position relies on unsupported speculation regarding how the Commission's resource counting will change in the future.[9]

Despite explicit Commission direction, BAMx argues that the Commission should now use the ELCC methodology instead of the existing methodology in this proceeding. The

[6] Exhibit CAISO-01, p. 8, fn. 9.
[7] *See* Commission Rulemaking 13-12-010, Assigned Commissioner's Ruling on Updates to the Planning Assumptions and Scenarios for Use in the 2014 Long-Term Procurement Plan and the California Independent System Operator's 2015-2016 Transmission Planning Process issued October 28, 2015, Attachment 1, p. 18.
[8] *See* Commission Rulemaking 13-12-010, Assigned Commissioner's Ruling Adopting Assumptions and Scenarios for Use in the California Independent System Operator's 2016-2017 Transmission Planning Process and Future Commission Proceeding, issued May 17, 2016, Attachment, p. 15. ("For 2016-17 TPP modeling purposes, the current Resource Adequacy exceedance methodology should continue to be utilized to model output levels of variable resources in the power flow (load flow) and stability studies typical of the CAISO's TPP.")
[9] The CAISO notes that BAMx provided no testimony regarding the projected impact the ELCC methodology would have on the transmission system or the Mesa Substation.

Commission's recent decisions make it clear that ELCC is not yet ready to be used for resource adequacy and transmission planning purposes. The Commission's most recent resource adequacy decision noted that "[t]here are real challenges that remain to be resolved before [ELCC] can be adopted in our RA program, and therefore we do not adopt ELCC for 2017 and instead leave the existing NQC rules in place for wind and solar resources."[10] The Commission has consistently rejected arguments that the ELCC should be used for transmission planning purposes before an ELCC methodology is actually adopted.[11] Circumstances have not changed, and BAMx has not presented any evidence to the contrary. Consistent with the Commission's explicit directives and relevant precedent, the Commission should reject BAMx's argument. The CAISO's technical analysis is based on the most accurate and up-to-date information available at the time of this proceeding. The CAISO's technical analysis should be used as the basis to review the technical feasibility of project alternatives.

III. Conclusion

BAMx presents no factual, legal or technical errors in the Proposed Decision. The Proposed Decision relies on a sound and well-reasoned analysis of the technical capabilities of the alternatives to the Proposed Project. It is undisputed that Alternatives 1 and 2 will result in violations of NERC and CAISO planning standards under the Commission's directed transmission planning assumptions. The Proposed Decision appropriately takes this information into account and properly approves the Proposed Project.

Respectfully submitted,

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[10] D. 16-06-045, p. 24.
[11] D.16-08-017, p. 19 ("ORA argues that the proposed project is not economically rational because the value of the solar resources represented by the generation resources it would serve is expected to significantly decline when California transitions to the use of effective load carrying capability methodology for calculating system resource adequacy. ORA asserts that, by taking this factor as well as distributed generation and out-of-state resources into greater account, the newer RPS calculator (version 6) is unlikely to lead to the identification of need for the proposed project in the CAISO's 2016-2017 TPP. However, the Commission has yet to rely upon version 6 to develop its renewable generation portfolios, and the premise that the Commission should use it to develop the 2016-2017 renewable generation portfolio is subject to dispute.") (internal citations omitted).

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