

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

In the Matter of the Application Of
SOUTHERN CALIFORNIA EDISON
COMPANY (U338E) for a Certificate of
Public Convenience and Necessity: Eldorado-
Lugo-Mohave Series Capacitor Project.

Application 18-05-007

**OPENING BRIEF OF THE
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

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The California Independent System Operator Corporation (CAISO) submits its opening brief in this proceeding pursuant to Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission (Commission) and the *Assigned Commissioner's Scoping Memo and Ruling* issued in this proceeding on August 12, 2019 (Ruling).¹

I. INTRODUCTION

The CAISO recommends that the Commission approve Southern California Edison Company's (SCE) application for a certificate of public convenience and necessity (CPCN) to construct the Eldorado-Lugo-Mohave Series Capacitor Project (Proposed Project). The Proposed Project is necessary to meet California's public policy-driven transmission requirements, provide requested full capacity deliverability service to generation and storage developers, and meet North American Electric Reliability Corporation (NERC) and CAISO transmission planning standards. In addition, the Proposed Project will provide significant access to preferred resources that can address the Commission-identified need for system resource adequacy capacity.

¹ As modified by the Administrative Law Judge's December 9, 2019 Ruling Confirming Adjustment to Scoping Memo Schedule.

II. BACKGROUND

The Proposed Project consists of series capacitor upgrades on the Lugo-Eldorado 500 kV transmission line and the Lugo-Mohave 500 kV line and associated terminal equipment upgrades. The CAISO identified the policy-based need for the Lugo–Eldorado series capacitor upgrades in the 2012-2013 Transmission Plan.² Subsequently, in the 2013-2014 Transmission Plan, the CAISO identified a policy-based need for the Lugo–Mohave series capacitor upgrades.³ The respective transmission plans noted that the project’s policy-based purpose was to integrate renewable resources sufficient to meet the State’s renewable portfolio standard (RPS) requirements.⁴ The CAISO subsequently re-studied the need for the Proposed Project in this proceeding and determined that it remains necessary to integrate renewable resources to meet the State’s RPS goals and provide adequate transmission capability to reliably operate the grid.⁵

III. DISCUSSION

A. The Proposed Project is Necessary To Meet Public Policy-Driven Needs.

The Commission has previously acknowledged the need for transmission solutions to meet the state’s policy goals as represented by the Commission-developed RPS portfolios. Specifically, the Commission has found that transmission solutions are necessary “to facilitate deliverability for renewable energy resources identified in the Commission’s renewable portfolios.”⁶ In making this conclusion, the Commission further noted that it is appropriate for the CAISO to rely upon RPS generation portfolios developed in the Commission’s resource planning proceedings, as contemplated under a May 13, 2010, Memorandum of Understanding (RPS Planning MOU) between the Commission and the CAISO.⁷

² Exhibit CAISO-03 (Millar Direct), p. 10:18-20.

³ *Id.*, p. 11:2-4.

⁴ Exhibit CAISO-03 (Millar Direct), p. 10:7-15.

⁵ Exhibit CAISO-01 (Barave Direct), p. 6:18-8:17.

⁶ *In the Matter of the Application of S. California Edison Co. (U 338-e) for A Certificate of Pub. Convenience & Necessity for the W. of Devers Upgrade Project & for an Interim Decision Approving the Proposed Transaction Between S. California Edison & Morongo Transmission LLC.*, No. 13-10-020, 2016 WL 4699448, at p. 7 (Aug. 18, 2016).

⁷ *Id.* at p. 7.

Consistent with RPS Planning MOU and previous Commission decisions, the CAISO identified the need for the Proposed Project based on its Federal Energy Regulatory Commission (FERC) approved policy-driven planning assessment.⁸ In the 2012-2013 and 2013-2014 transmission planning processes, the CAISO identified the Proposed Project as a policy-driven transmission solution necessary to provide deliverability for both existing interconnection requests and the Commission-developed RPS portfolios and to avoid causing overloads on the Los Angeles Department of Water and Power (LADWP) transmission system.⁹

The CAISO updated its policy-driven transmission planning analysis for this proceeding and confirmed that the Proposed Project remains necessary to meet the state's public policy goals. Specifically, the CAISO assessed whether existing transmission capacity could provide deliverability to the resources identified in the most recent Commission-developed RPS portfolios.¹⁰ The CAISO's power flow analysis identified overloads on the Marketplace–Adelanto 500 kV line and the Lugo–Victorville 500 kV line without the Proposed Project and the associated improvements to the Lugo–Victorville 500 kV line upgrades.¹¹ This means that without the Proposed Project, the Commission-developed RPS portfolios will not be fully deliverable. The CAISO's deliverability assessment confirms the need for the Proposed Project to reduce the loop flow through neighboring systems and to make the most recent Commission-developed RPS portfolio deliverable.

B. The Proposed Project Is Necessary to Interconnect Existing Generator Interconnection Requests.

In addition to deliverability necessary to interconnect the Commission-developed RPS portfolio resources, the project is necessary to fulfill SCE's obligations to interconnect generation resources in the CAISO interconnection queue that have applied

⁸ The CAISO notes that it initially identified the need for both components of the Proposed Project based on its Phase II generator interconnection process.

⁹ Exhibit CAISO-3 (Millar Direct), p. 10:17-11:5.

¹⁰ Specifically, the CAISO assessed the transmission system using the Commission-developed RPS portfolios provided for the 2019-2020 transmission planning process.

¹¹ As the CAISO explained in testimony, the Lugo-Victorville 500 kV line upgrades are a joint project between the CAISO and LADWP. The Lugo-Victorville 500 kV line upgrades are unlikely to be completed if the Proposed Project is not built. Barave Opening Testimony 7:24-8-4.

for Full Capacity Deliverability Status.¹² The Commission has noted that such interconnection requests and SCE's associated obligations to upgrade its transmission system are a relevant consideration in determining the need for transmission system improvements.¹³

In this proceeding, the CAISO noted that as of October 2019, there were 485 MW of generation projects online and awaiting the completion of the Proposed Project to achieve Full Capacity Deliverability Status and another 3,715 MW of active projects in the CAISO interconnection queue with executed Generation Interconnection Agreements that require the Proposed Project to achieve deliverability.¹⁴ In total, the CAISO identified approximately 10,900 MW of resources in its interconnection queue that depend on the Proposed Project to achieve deliverability.¹⁵ Although the CAISO does not expect all of this generation to be built, it demonstrates that there is substantial developer interest in the area well beyond the levels indicated in the Commission-developed RPS portfolios. The Proposed Project therefore further serves the public convenience and necessity by interconnecting proposed generation projects in addition to the RPS portfolios.

The CAISO notes that the significant generator interconnection request activity in the areas supported by the Proposed Project are consistent with the Commission and CAISO planning processes. The vast majority of these projects are preferred resources—primarily solar, storage, and hybrid (*i.e.*, combined solar and storage)—that are key to achieving the state's renewable and greenhouse gas reduction goals.¹⁶ This preferred resource development shows that resource developers have invested in specific renewable energy zones based on the Commission and CAISO planning and procurement processes. By approving the Proposed Project, the Commission will reinforce its planning and procurement processes and ensure that future preferred resource development is consistent with those processes.

¹² Full Capacity Deliverability Status entitles a Generating Facility to a Net Qualifying Capacity amount that could be as large as its Qualifying Capacity and may be less pursuant to the assessment of its Net Qualifying Capacity by the CAISO. *See* Exhibit CAISO-03 (Millar Direct), p. 6, fn. 2.

¹³ *Id.* at p. 6.

¹⁴ Exhibit CAISO-1 (Barave Direct), p. 11:9-13.

¹⁵ *Id.*, p. 11:3-4.

¹⁶ Exhibit CAISO-1 (Barave Direct), p. 11-13, Table 4.

C. The Proposed Project Serves Public Convenience and Necessity by Providing Deliverability to Preferred Resources that Can Meet Commission-Identified Resource Adequacy Needs.

In Decision (D.) 19-11-016, the Commission directed its jurisdictional load-serving entities to procure 3,300 MW of incremental resources to meet system resource adequacy needs.¹⁷ Load serving entities must procure resources that count toward resource adequacy purposes, which means that the resources must be deliverable to load. As noted in Section B. above, the Proposed Project will provide deliverability to a significant amount of new resources—including solar, storage and hybrid resources—that will be able to count toward meeting system resource adequacy requirements. The CAISO estimates that the Proposed Project will provide access to a minimum of approximately 2,700 MW of incremental qualifying capacity that can count toward system resource adequacy needs.¹⁸ Further, this estimate is extremely conservative, especially in light of recent requests to add approximately 1,935 MW of energy storage to existing renewable interconnection projects, as the CAISO discusses in more detail in Section D, below. At a minimum, the Proposed Project will provide access to effective resources that will be eligible to provide system resource adequacy consistent with D. 19-11-016.

D. The Commission Should Not Discount the Need for the Proposed Project Based on the CAISO's Proposed New Deliverability Methodology.

During the course of 2019, the CAISO undertook a stakeholder process to consider prospective changes to its deliverability assessment methodology.¹⁹ This stakeholder process initially focused on adapting the deliverability assessment study assumptions to consider changing system conditions.²⁰ Specifically, the CAISO explored adjusting the study assumptions to assess deliverability during periods of peak resource adequacy capacity needs.²¹ Based on stakeholder input, the CAISO expanded the scope of the stakeholder process and ultimately adopted modifications to address deliverability

¹⁷ D.19-11-016, p. 34.

¹⁸ Transcript, p. 67:5-8.

¹⁹ Exhibit CAL ADV-7, p. 21-23.

²⁰ *Id.*

²¹ *Id.*

requirements during both peak system need periods and hours outside of the summer peak load period.²² The purpose of assessing deliverability outside of the peak load period is to ensure that generators have some reasonable level of protection to otherwise potentially unlimited excessive curtailment.²³ As a result of this stakeholder process, the CAISO Board of Governors approved a revised deliverability assessment methodology December 2019.²⁴ The prospective deliverability assessment methodology is not yet effective, nor has it been approved by FERC.²⁵

The Commission should refrain from speculating on the potential impact the prospective deliverability methodology will have on the need for the Proposed Project. The deliverability methodology has not been implemented, and the CAISO has no experience with it. For this proceeding, the CAISO used the currently effective deliverability assessment methodology to consider the need for the Proposed Project. This is appropriate because the existing methodology is consistent with the planning and procurement processes that developed the RPS portfolios and encouraged resource development in the renewable zones served by the Proposed Project. Speculating on the potential impact of the new deliverability assessment methodology is unwarranted, both prudentially—because the prospective deliverability methodology is not yet effective—and substantively—because the ramifications of the proposed methodology are unclear and it is uncertain how the methodology will affect the need for the Proposed Project. The changes to the methodology must work their way through the generator interconnection and transmission planning process, and it is unclear what the industry response to those changes will be and what the ultimate effect will be.

There is no basis to conclude that the prospective deliverability assessment methodology will obviate the need for the Proposed Project or enable the RPS portfolio resources to achieve deliverability.²⁶ The new methodology would consider lower solar output levels during later-day peak loads, which, at face value, might suggest lower transmission requirements to achieve deliverability for solar resources; however,

²² *Id.*

²³ *Id.*

²⁴ Exhibit CAL ADV-3.

²⁵ Exhibit CAL ADV-7, p. 21.

²⁶ Transcript (Barave), p. 59:20-26.

including the off-peak deliverability assessment will potentially counteract reductions in transmission requirements²⁷ because the off-peak deliverability assessment will identify new transmission upgrades that are necessary to mitigate excessive transmission-related curtailment.

In addition, the CAISO notes that generation developers have already responded to the proposed deliverability methodology by modifying their projects to make use of any incremental deliverability that is available. Specifically, in anticipation of the new deliverability methodology, the CAISO allowed existing interconnection queue projects to supplement their projects with storage to use any incremental deliverability that may be available as a result of the new methodology.²⁸ On December 2, 2019, the CAISO received interconnection project modifications that add 1,935 MW of incremental storage resources to projects that depend on the Proposed Project to achieve deliverability and are currently in the interconnection queue.²⁹ These incremental storage additions demonstrate that preferred resources will use any deliverability freed up by the prospective assessment methodology. This means that new preferred resources will use the Proposed Project to achieve deliverability even with the new deliverability assessment in place.

Lastly, the Commission should not reject the Proposed Project based on the prospective deliverability methodology because it will create unacceptable investment and operational risk for generation projects under development. The need for the Proposed Project is based on the deliverability methodology that was—and remains—in place at this time. Generators made investment and siting decisions based on the reasonable expectation that the Proposed Project would provide deliverability and reduce congestion consistent with the Commission and CAISO planning and procurement processes. Moving the goalposts at this late stage in the permitting process would create uncertainty for preferred resource developers and undercut the state’s efforts to create a stable and reliable investment environment for preferred resources to develop.

²⁷ Exhibit CAL ADV-7, p. 22-23.

²⁸ Exhibit CAL ADV-7, p. 9.

²⁹ *Id.*.

IV. CONCLUSION

The CAISO recommends that the Commission approve SCE's application for a CPCN to construct the Proposed Project. The Proposed Project is necessary to provide deliverability consistent with the Commission-developed RPS portfolios. The Proposed Project is also necessary to provide Full Capacity Deliverability Status to projects that have requested it through the CAISO's generator interconnection process. Furthermore, the Proposed Project provides significant access to incremental resources that can help meet the Commission-identified system resource adequacy needs. Based on the foregoing, the Proposed Project serves the public convenience and necessity.

Respectfully submitted

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