

**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

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

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

The California Independent System Operator Corporation (CAISO) submits its reply 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

Throughout the course of this proceeding, the CAISO provided direct, uncontested evidence demonstrating that the Proposed Project is necessary to provide deliverability for renewable resources that the Commission identified as necessary to meet state renewable portfolio standard (RPS) and public policy goals. Specifically, the CAISO conducted a detailed deliverability analysis showing that without the Proposed Project, the resources included in the Commission's RPS portfolios will not be deliverable. No party contests the accuracy of the CAISO's power flow analysis. Instead, parties opposing the project generally question (1) the assumptions underlying the CAISO's updated analysis and (2) the CAISO's use of its existing deliverability methodology to the conduct its analysis. They broadly challenge the conclusions of the state and federal planning and procurement processes, which are not at issue in this proceeding. Instead, the scope of this proceeding is narrowly focused on whether the Proposed Project is necessary to meet state's policy goals—in this case, achieving RPS and greenhouse-gas emissions targets implemented in the Commission's planning and procurement processes.

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

The Commission-developed RPS portfolios are not at issue in this proceeding. The CAISO used the most up-to-date RPS portfolios with generation resource assumptions from the Commission’s Integrated Resource Plan (IRP). The California Public Advocates Office (Cal Advocates) and Wild Tree Foundation (WTF) question the underlying resource assumptions—arguing that the resources identified in the Commission-developed RPS portfolios are not necessary to meet state public policy goals. However, the Commission-developed RPS portfolios provide the best available information regarding future renewable resource development, including the quantity, location, deliverability status, and types of resources expected to be developed. This permitting proceeding is not a venue to reconsider the state’s generation portfolio. Instead, the Commission should consider whether the Proposed Project is necessary to achieve the RPS portfolio that it developed in the IRP process. The CAISO’s updated analysis conclusively shows that the Proposed Project is necessary to achieve the most recent Commission-developed RPS portfolios and to meet the state’s public policy goals for reducing greenhouse gas emissions.

II. DISCUSSION

A. The Proposed Project Is Necessary to Meet Public-Policy Driven Needs.

Cal Advocates asserts that the Proposed Project does not serve a present or future public convenience and necessity because it is “not necessary to enable procurement of additional system [resource adequacy].”² Similarly, WTF argues that the Proposed Project is not needed to meet RPS goals.³ Cal Advocates assertion is based on the premise that the Proposed Project is not needed for generators to achieve full capacity deliverability status or provide resource adequacy.⁴ Regarding the former point, Cal Advocates is incorrect: the generation included in the most recent Commission-developed RPS portfolios will not achieve full capacity deliverability status without the Proposed Project. On the latter point, Cal Advocates incorrectly assumes that Interim Deliverability Status is sufficient to provide durable resource adequacy capacity. This assumption is incorrect. Full Capacity Deliverability Status is necessary to ensure resources can provide long-term resource adequacy capacity.

² Cal Advocates Opening Brief, p. 7.

³ WTF Opening Brief, p.23-29.

⁴ Cal Advocates Opening Brief, p. 7.

1. The Proposed Project Is Necessary to Provide Full Capacity Deliverability Status to Generation in the Commission-Developed RPS Portfolio.

The CAISO used its current deliverability assessment methodology to determine whether the generation resources included in the most recent Commission-developed RPS portfolio could achieve deliverability without the Proposed Project. The CAISO's assessment showed thermal overloads on the Marketplace-Adelanto and Lugo-Victorville 500 kV lines without the Proposed Project.⁵ This means that Desert area generation in the Commission-developed RPS portfolio would not be deliverable without the Proposed Project.

Cal Advocates argues that the CAISO should conduct an additional deliverability analysis using its newly proposed assessment methodology—despite that the new methodology has not yet been approved—because “the revised on peak deliverability assessment assumptions mean that more resources would be deliverable without further upgrades to the transmission system.”⁶ Cal Advocates suggests that the Proposed Project may be unnecessary if considered with the new “on peak deliverability assessment assumptions.” However, Cal Advocates ignores that the CAISO's proposed deliverability methodology does not change the on peak deliverability assessment assumptions in isolation without regard to impacts on existing resource planning. To the contrary, the on peak deliverability assessment (or high system need (HSN) assessment) referenced by Cal Advocates is merely one aspect of the larger deliverability assessment proposal. The proposed deliverability methodology includes a secondary system needs (SSN) assessment and an off-peak deliverability assessment in addition to several elements that will provide a smooth transition to the new deliverability methodology without unreasonably upsetting past planning activities.

In addition to the HSN, which confirms deliverability during the highest system need hours when solar output is relatively low, the SSN aspect of the proposed deliverability methodology assesses the system at peak consumption levels when solar resource output is significantly higher.⁷ The proposed deliverability methodology also includes an off-peak deliverability assessment that considers higher levels of renewable production during off-peak hours. The off-peak assessment will identify transmission upgrades necessary to relieve

⁵ Exhibit CAISO-1 (Barave), p. 7.

⁶ Cal Advocates Opening Brief, p. 9.

⁷ Exhibit Cal Adv-5, p. 12.

excessive renewable curtailment caused by transmission constraints.⁸ As part of the transition to the new methodology, the CAISO will study all interconnection projects in Clusters 10, 11, and 12 as requesting off-peak deliverability.⁹ The CAISO proposal also establishes a one-time deliverability allocation to allow existing interconnection to use any newly available deliverability.¹⁰ In the areas affected by the Proposed Project, interconnection customers responded by adding 1,935 MW of incremental storage to projects that depend on the Proposed Project for deliverability.¹¹ Considered holistically, the CAISO's proposed deliverability assessment actively protects against upsetting the renewable development community's reasonably formed expectations regarding future transmission upgrades. It would be imprudent to use this permitting proceeding to undermine those reasonable expectations.

2. The Proposed Project Is Necessary to Provide Durable Resource Adequacy Capacity.

Cal Advocates asserts that the Proposed Project is unnecessary because generation projects provide resource adequacy capacity by achieving Interim Deliverability Status.¹² Cal Advocates points to one specific generator, Copper Mountain, as having Interim Deliverability Status.¹³ However, as SCE explained at the evidentiary hearings, Interim Deliverability Status is granted a year-by-year basis and does not guarantee long-term deliverability.¹⁴ Thus the Commission and load-serving entities cannot rely on the underlying resource to provide resource adequacy capacity outside of the next year. As a result, projects with only Interim Deliverability Status cannot meet long-term reliability needs like those the Commission identified in its most recent IRP procurement, which directs load-serving entities to procure 3,300 MW of new resource adequacy resources by 2023.¹⁵ Cal Advocates' suggestion that the Commission can rely on projects with Interim Deliverability Status to provide resource adequacy is short-sighted and inconsistent with long-term system needs.

⁸ *Id.* at 15.

⁹ *Id.* at 23

¹⁰ *Id.*

¹¹ Exhibit Cal Adv-7, p. 9.

¹² Cal Advocates Opening Brief, p. 10.

¹³ *Id.*

¹⁴ Transcript (Chacon), p. 30:10-13.

¹⁵ D.19-11-016, p. 70.

B. Cal Advocates Misunderstands the Relationship between the Proposed Project and Planned Lugo-Victorville 500 kV Line Upgrades.

Cal Advocates suggests it is “unreasonable to construct the Proposed Project in the hopes that LADWP will then construct the Lugo-Victorville [500 kV line] project because CAISO has no method of ensuring that LADWP will perform.”¹⁶ This misunderstands the relationship between the two separate projects. If LADWP does not complete the Lugo-Victorville 500 kV line upgrades, the need for the Proposed Project will increase because the Lugo-Victorville upgrades will not be in place to mitigate thermal overloads. The value of the Proposed Project does not hinge on completing the Lugo-Victorville upgrades. The salient point is that the Lugo-Victorville 500 kV line upgrades will not *independently* address the thermal overloads addressed by the Proposed Project.

C. Cal Advocates’ Suggestion that the Proposed Project May Increase Curtailment and Ramping Issues is a Non-Sequitur.

Cal Advocates argues that the Proposed Project “has the potential to exacerbate curtailment and ramping issues.”¹⁷ As support, Cal Advocates points to its direct testimony, which asserts generally that the Proposed Project would interconnect new renewable resources that would “increase the frequency and magnitude of curtailments.”¹⁸ The Commission considers economic and policy tradeoffs—including acceptable renewable curtailment levels—as part of its RPS portfolio development process. In previous planning analyses, the Commission found that economic curtailment may be preferable to other options to address ramping needs in some circumstances.¹⁹ The Commission does not plan its RPS portfolios to minimize curtailment, and neither SCE nor the CAISO is obliged to prove that the Commission-developed RPS portfolios do so.

Furthermore, Cal Advocates provides no substantive analysis showing curtailment will increase with the Proposed Project. Instead, it provides only generalized, conclusory

¹⁶ Cal Advocates Opening Brief, p. 12.

¹⁷ *Id.* at 11.

¹⁸ Exhibit Cal Adv-1, p. 19.

¹⁹ See D.18-02-018, p. 40. (“First, curtailment of renewables is an integration option in the model. Curtailment is modeled by assuming that the developer is paid its production cost regardless of whether its output is curtailed or delivered to the grid; this is consistent with the terms of most current IOU RPS contracts. This curtailment alternative is lower cost than many of the more expensive renewable integration options for much of the time period analyzed.”)

assumptions based on a cursory review of the interconnection queue.²⁰ As the CAISO noted in its response to Cal Advocates interrogatories, there are currently 7,825 MW of storage resources in the interconnection queue that require the Proposed Project to achieve deliverability. All of these resources can mitigate curtailment or ramping issues.

D. The Commission Considered Alternatives Consistent with the Objective of the Proposed Project.

Cal Advocates and WTF claim that SCE failed to provide alternatives to the Proposed Project consistent with CPCN statutes, specifically Public Utilities Code Section 1002.3 and 1005.1. Those sections require the Commission to consider cost-effective alternatives to transmission facilities, such as distributed generation or battery storage, before issuing a CPCN. The CAISO notes that the Commission fully considered all alternatives, including distributed generation and battery storage, in selecting the RPS portfolios that drove the need for the Proposed Project. The Proposed Project objective is to provide deliverability to the generation resources identified in the Commission-developed RPS portfolios. The mitigated negative declaration for the Proposed Project specifically notes that one project objective is to “[i]ntegrate planned generation resources in order for those facilities to become fully deliverable.”²¹ Alternatives such as distributed generation and battery storage cannot independently meet the Proposed Project’s objective to integrate planned generation resources in the RPS portfolios.

In previous similar circumstances, the Commission found it consistent with the CPCN statutes to approve a policy-driven project and reject “non-wires alternatives” because they “would fail to meet one of the primary...one of the principle objectives of the project, namely the interconnection of the renewable resources” in a particular renewable energy zone.²² In the present case, SCE provided appropriate wires alternatives in its PEA, and non-wires alternatives fail to meet the primary project objective to interconnect planned renewable resources. Consistent with its precedent, the Commission should find that the statutory requirements have been satisfied.

²⁰ Cal Adv-1, p. 22. (“The possible addition of about 9,300 MW of solar/wind/hybrid generation to the transmission system by the Proposed Project, based on the interconnection queue list provided by SCE, does not mitigate the CAISO’s current ramping requirements.”)

²¹ Exhibit SCE-3, (Mitigated Negative Declaration), pp. 1-2.

²² *In the Matter of the Application of the S. California Edison Co. (U 338 e) for A Certificate of Pub. Convenience & Necessity for the Eldorado-Ivanpah Transmission Project.*, No. 09-05-027, 2010 WL 5650688 (Dec. 16, 2010)

E. WTF’s Arguments Suffer from Multiple Factual Deficiencies.

WTF makes several additional arguments that are either contradicted by the evidence in this proceeding or based on factually unsupported opinions. The CAISO addresses each of these briefly below.

1. The CAISO Demonstrated Need for the Proposed Project Based on the Most Recent RPS Portfolios.

WTF asserts that the “CAISO provides no analysis, data, or any information on this assessment other than to state that this expedited assessment is not based upon comprehensive results from the 2019-2020 transmission planning process.”²³ This is fundamentally incorrect. CAISO witness Sushant Barave conducted detailed power flow assessment based on the most recent RPS portfolios and modeling assumptions. The CAISO had to expedite this assessment specifically for this proceeding, but the CAISO used same modeling methods and assumptions it used in the regular 2019-2020 transmission planning process.

2. The CAISO Does Not Assert that the Proposed Project Is Necessary to Meet Los Angeles Department of Water and Power (LADWP) RPS Needs.

WTF incorrectly asserts that the CAISO “argues for the project based on the claimed RPS need of municipal power agencies, specifically Los Angeles Department of Water and Power.”²⁴ The CAISO never made such an assertion. Instead, the CAISO stated that the Proposed Project is necessary to respect LADWP’s scheduling rights, not to provide for LADWP’s RPS needs. CAISO load serving entities maintain 3,579 MW of entitlements on the Northern West of River Path, which is used to deliver renewable resources from Eldorado, Mountain Pass, and Southern Nevada. Without the Proposed Project, CAISO load-serving entities will not be able to deliver resources in the Commission-developed RPS portfolios without causing loop flow on LADWP’s system.

3. WTF Incorrectly Repeats that Only Two Projects Rely on the Proposed Project for Deliverability.

WTF again states that the “entire argument” for the Proposed Project “to meet the requirements of existing [interconnection agreements] that allegedly require the Project to

²³ WTF Opening Brief, p. 28.

²⁴ *Id.* at 27.

achieve FCDS, hinges on two projects.”²⁵ The CAISO addressed this argument in rebuttal testimony, noting that “[t]he two projects WTF mentions are only a small subset of projects that require the Proposed Project to achieve FCDS. Table 4 of [Mr. Barave’s] opening testimony lists 33 active queued projects that require the Proposed Project to achieve FCDS.”²⁶

4. WTF Incorrectly Suggests that Providing Deliverability to Projects in the CAISO Interconnection Queue Would be Contrary to Commission Policy.

In testimony and briefs, the CAISO noted that generation projects with over 10,000 MW in nameplate capacity require the Proposed Project to achieve deliverability. WTF suggests that providing these resources with deliverability would be “in contradiction to Commission policy.”²⁷ WTF does not explain how it reached this conclusion, but it appears partially based on the fact that Commission’s most recent RPS portfolio allocates “just 800 MW of FCDS for *solar only* for S. Nevada area”²⁸ (emphasis in the original). WTF’s position is unsustainable in several respects. First, WTF materially understates the quantity of RPS portfolio resources served by the Proposed Project, which provides deliverability to several renewable energy zones, including Southern Nevada, Eldorado and Mountain Pass. The latest Commission-developed RPS portfolios include 3,006 MW of resources in these combined areas.²⁹ Second, the CAISO has not argued that Commission-developed RPS portfolio includes all 10,000 MW of generation resources in the CAISO interconnection queue resources. Rather, the substantial generation in the interconnection queue shows that developers have taken action to construct projects in the area based on a reasonable expectation the Proposed Project will be built. Finally, the Commission has previously acknowledged that a transmission owner’s obligations to upgrade its transmission system to meet interconnection requests are a relevant consideration in determining project need.³⁰ Providing deliverability as requested by interconnection requests is fully consistent with Commission policy.

²⁵ WTF Opening Brief, p. 30.

²⁶ Exhibit CAISO-2 (Barave), p. 5:16-19.

²⁷ WTF Opening Brief, p. 33.

²⁸ *Id.* at 33.

²⁹ Exhibit CAISO-1 (Barave), p. 8:28.

³⁰ *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 *6 (Aug. 18, 2016). The Commission specifically found that “Under FERC orders and interconnection agreements executed pursuant to the CAISO’s FERC tariff, SCE is obligated to provide for the requested level of interconnection.”

5. The CAISO's Analysis Takes into Account Changed Circumstances.

WTF asserts that the CAISO's planning is based on "outdated assumptions that do not take into account installation of large quantities of behind the meter solar; energy efficiency; or past load departure due to formation of community choice aggregators ("CCAs") and future load departure."³¹ This is assertion is untrue. The CAISO's updated assessment for this proceeding considered relevant material changes in transmission and resource assumptions that have taken place since the Proposed Project was initially approved.³² This includes updating assumptions for demand, distributed generation, and energy efficiency. The CAISO notes that load departure from the investor-owned utilities does not affect the Commission-developed RPS portfolios because the portfolios are planned to optimize the system rather than the procurement for any individual load-serving entity.

III. CONCLUSION

The CAISO reiterates its support and recommends that the Commission approve SCE's application for a CPCN to construct the Proposed Project.

Respectfully submitted,

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³¹ WTF Opening Brief, p. 35.

³² Exhibit CAISO-01 (Barave), p. 8:19-9:2.