

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

In the Matter of the Application of San Diego
Gas & Electric Company (U902E) for a
Certificate of Public Convenience and
Necessity for the South Orange County
Reliability Enhancement Project.

Application 12-05-020
(Filed May 18, 2012)

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

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I. Introduction

Pursuant to the Rule 14.3(d) of the California Public Utilities Commission (Commission) Rules of Practice and Procedure, the California Independent System Operator Corporation (CAISO) files these reply comments on the Alternate Proposed Decision (APD) on San Diego Gas & Electric Company's (SDG&E's) request for a certificate of public convenience and necessity (CPCN) for the South Orange County Reliability Enhancement (SOCRE) Project. The CAISO replies to opening comments submitted by the City of San Juan Capistrano (SJC), Forest Residents Opposing New Transmission Lines (Frontlines), and the Office of Ratepayer Advocates (ORA). In general, the comments submitted by SJC, Frontlines, and ORA suffer from many of the same factual errors and logical missteps as the Proposed Decision, which are discussed in detail in the CAISO's Opening Comments on the Proposed and Alternate Proposed Decisions.¹ In these reply comments, the CAISO focuses on the following issues: (1) the appropriate level of deference the Commission should give to the CAISO's need determination; (2) the technical feasibility of Alternative J; and (3) claims that SOCRE reduces reliability in South Orange County.

II. Discussion

A. The Alternative Proposed Decision Appropriately Defers to the CAISO on Issues Regarding Transmission System Reliability.

SJC and Frontlines assert that the APD errs in giving deference to the CAISO's analysis because such deference is "inappropriate and not consistent with the Commission's statutory duties."² These assertions misconstrue both the deference outlined in the APD and the Commission's duties under the Public Utilities Code.

The APD carefully and correctly delineates between the CAISO's reliability planning and the Commission's decisions on particular transmission projects. The APD notes that the Commission

¹ <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M168/K527/168527425.PDF>.

² SJC APD Opening Comments, p. 4. Frontlines makes similar claims at pages 1-2 of its opening comments.

should not “set aside CAISO’s executing of its paramount duty to ensure system reliability.”³ This language recognizes that the CAISO must determine whether the transmission system complies with Applicable Reliability Criteria no matter what project the Commission ultimately approves in the state regulatory process.⁴ Typically, this reliability review occurs during the course of the CAISO’s transmission planning process, and the CAISO participates in the Commission’s CPCN process to inform the Commission about the CAISO-identified need for the project and the ability of alternatives to meet that need. In the present case, the CAISO has fully participated in the CPCN process by performing electric power flow studies on each alternative proposed in the course of this proceeding. This review clearly and convincingly demonstrates that none of the alternatives will allow the CAISO to meet its Applicable Reliability Criteria. As a result, the APD properly notes that the “CAISO’s charge [to ensure system reliability] must be given effect and complement, not be overruled by, the [Commission]’s.”⁵

The Commission maintains authority to decide whether a particular CAISO-identified project serves the public convenience and necessity, but is not authorized to find that a particular alternative to a CAISO-approved project meets Applicable Reliability Criteria. NERC and WECC establish and enforce the Applicable Reliability Criteria. The CAISO is obligated to maintain Applicable Reliability Criteria,⁶ and is the entity subject to penalties if it fails to meet such requirements. The APD recognizes that the Commission should defer to the CAISO on the issue of whether a particular alternative will or will not meet Applicable Reliability Criteria. In this case, the CAISO has noted that not only does Alternative J fail to meet Applicable Reliability Criteria, it will also cause significant new negative effects on the transfer capacity of the 230 kV transmission system. Deference to the CAISO on these issues is proper, because if the Commission approves Alternative J, the CAISO will be required to develop additional transmission solutions to address Alternative J’s negative impacts, further increasing costs and impacts.⁷ The CAISO would fully develop these additional transmission solutions in its

³ APD, p. 29.

⁴ Terms not otherwise defined herein are defined in the CAISO tariff.

⁵ APD, p. 29.

⁶ Pub. Util. Code Section 346 (“The Independent System Operator shall ensure that additional filings at the Federal Energy Regulatory Commission request confirmation of the relevant provisions of this chapter and seek the authority needed to give the Independent System Operator the ability to secure generating and transmission resources necessary to guarantee achievement of planning and operating reserve criteria no less stringent than those established by the Western Electricity Coordinating Council and the North American Electric Reliability Council.”)

⁷ As provided in Exhibit CAISO-505, p. 5-6. In addition, because Alternative J is electrically distinct from the CAISO-approved SOCRE Project, the CAISO would be compelled to review any Commission approved Alternative J in the planning process.

transmission planning process, and at a minimum these additional solutions would include the elements outlined in Exhibit CAISO-505.

In this instance, deference to the CAISO on whether a specific alternative meets Applicable Reliability Criteria is reasonable and appropriate, especially given the detailed power flow analysis the CAISO conducted, because the Commission cannot absolve the CAISO of its obligation to meet reliability standards, and the CAISO has already found that the identified alternatives will not work.

B. The Alternative J Variants Proposed in Opening Comments Do Not Meet Applicable Reliability Criteria.

In Opening Comments, SJC, Frontlines, and ORA continue to argue that Alternative J is technically feasible, if certain modifications are made. The continued confusion regarding what version of Alternative J should be approved, even after a Proposed Decision has been issued, is emblematic of the problem posed by attempting transmission planning without conducting electrical power flow analysis to support that planning. SJC⁸ and Frontlines⁹ agree that a second 230/138 kV transformer at the proposed Trabuco Substation is necessary to make Alternative J feasible, but ORA does not.¹⁰

However, even with the second transformer at the Trabuco Substation, Alternative J is not technically feasible because installing the second transformer causes additional overloads on the South Orange County 138 kV system.¹¹ SJC erroneously asserts that the CAISO's modeling shows that no South Orange County 138 kV lines are overloaded by the implementation of Alternative J, but it appears that SJC did not review the evidence clearly showing the five South Orange County transmission system elements that are overloaded when a second transformer is added to Trabuco Substation.¹² The CAISO found additional elements that would be overloaded under Alternative J. They are generally referenced in the transcript of this proceeding¹³ and would be further identified in the transmission planning process if the Commission approves Alternative J. Based on evidence in the record, the northbound transfer capacity on the 230 kV corridor connecting the San Diego and Los Angeles Basin areas would be

⁸ SJC Opening Comments, p. 8 (“The first three items on CAISO’s list of necessary refinements... (3) the addition of a second transformer at Trabuco... have been incorporated into the refinements of Alternative J advanced in the record.”)

⁹ Frontlines Opening Comments, p. 17 (“Frontlines recommends a Trabuco Alternative that includes the construction of a new 230 kV ‘breaker and a half’ GIS substation.”)

¹⁰ ORA Opening Comments on the Proposed and APDs, p. 7 (“the different parties’ opinions as to optimal configurations for Trabuco do not preclude adoption of Alternative J.”)

¹¹ CAISO Opening Comments, p. 6-7; Exhibit Frontlines-436, p. 7 of 10.

¹² Exhibit Frontlines-436, p. 7 of 10.

¹³ Tr. at p. 340, ln. 1-7.

reduced by approximately 1,000 MW.¹⁴ These issues further demonstrate the infeasibility of Alternative J and the additional costs Alternative J would impose to maintain Applicable Reliability Criteria.

SJC, Frontlines, and ORA submit that any reliability concerns can be addressed using a special protection system (SPS). SJC even proposes a specific SPS (for the first time) and asserts that “[s]uch an SPS is not complex.”¹⁵ Frontlines misleadingly states that “opening up the Trabuco 230 kV transformers,” *i.e.*, imposing an SPS, “would stop power flow and eliminate any overload conditions” without analyzing whether such an SPS could be implemented. As stated in the CAISO’s Opening Comments, such an SPS would need to monitor at least five transmission system elements, thus exceeding the maximum number of elements that allowed to be monitored by an SPS under the CAISO Planning Standards.¹⁶ Based on this information alone, the SPS is infeasible. The SPS proposed by SJC addresses only the circumstance in which there is one transformer at the Trabuco Substation, and the single Trabuco transformer overload is the worst in the South Orange County system. This “simple” SPS solution would not be valid if the second Trabuco transformer is in service. With the addition of the second transformer, which would increase loop flow concerns, the SPS would not maintain reliability while meeting the CAISO Planning Standards.¹⁷

C. The SOCRE Project Does Not Reduce Reliability in South Orange County.

Frontlines and ORA claim that the SOCRE Project reduces the level of reliability in South Orange County because loads can be dropped if a contingency completely removes the new Capistrano Substation from service.¹⁸ This statement is misleading because the contingency scenario presented has no bearing on whether upgrades are necessary to meet Applicable Reliability Criteria. The complete loss of the Capistrano Substation represents an “extreme event” under NERC standards, which is not a contingency that requires mitigation under NERC or CAISO Planning Standards. It is particularly ironic that Frontlines and ORA fault the SOCRE Project for not addressing one particular extreme contingency event given the alternatives advanced by Frontlines and ORA fail to address contingencies that the CAISO is required to mitigate under mandatory planning standards.

Frontlines also argues that South Orange County “will experience voltage problems when Talega [Substation] is removed from service.”¹⁹ Frontlines misunderstands SDG&E’s witness, who clearly

¹⁴ Transfer capacity would be reduced to 1470 MW (Tr. at p. 338, ln. 2-8) from the current 2440 MW transfer capacity.

¹⁵ SJC APD Opening Comments, p. 12.

¹⁶ CAISO Opening Comments, p. 7-8.

¹⁷ Additional analysis by the CAISO shows that the SPS would need to monitor even more transmission elements (at least 10). The CAISO cannot use an SPS to address these overloads because it would exceed CAISO Planning Standards.

¹⁸ Frontlines APD Opening Comments, p. 11; ORA Opening Comments, p. 3-5.

¹⁹ Frontlines APD Opening Comments, p. 11.

indicated that service would not be affected.²⁰ Likewise, the CAISO found no voltage issues for loss of the Talega Substation with the SOCRE Project in service.

Lastly, Frontlines claims without support that load shedding would be required with SOCRE in place under overlapping contingencies on the 230 kV lines from Escondido and SONGS to Talega.²¹ Based on the CAISO's analysis, there is no problem beyond the 10-year planning horizon. Frontlines does not provide any power flow data supporting its assertion. On the other hand, the CAISO's studies show there is no reliability concern associated with SOCRE.

D. Miscellaneous Issues

The Opening Comments address many issues that have either been exhaustively addressed elsewhere, are not relevant to this proceeding or are completely nonsensical. These are addressed in brief in this section.

- Impacts on the Southern California Edison Company (SCE) System – The CAISO identified significant impacts on the SCE system, contrary to Frontlines' assertions.²² The CAISO identified numerous elements in the SCE transmission system that experience incremental loading conditions of one to two percent. These reliability impacts are real and costly, as outlined in the CAISO's Opening Comments.²³
- Load Issues – SJC, Frontlines, and ORA spend considerable effort on the appropriate load level used for transmission planning in South Orange County. Generally, these arguments are irrelevant because the load levels used do not change the outcome.²⁴
- 2010 SOCRE Project Approval – Frontlines spends considerable efforts criticizing the CAISO's 2010 review of the SOCRE Project. This section is (1) not relevant given CAISO's updated analysis in this proceeding and (2) riddled with factual errors.²⁵
- Temporal Feasibility of Alternative J – SJC asserts in a conclusory manner that Alternative J is “temporally feasible” because “to the extent, [sic] any mitigation is necessary, such mitigation has already been incorporated into the CAISO's 2015-2016 transmission plan.”²⁶ SJC provides no cite for this assertion, which is factually inaccurate. If the Commission approves Alternative J, the CAISO will not be able to study it until the CAISO's 2017-2018 transmission plan, at the earliest. Thus, the full extent of additional mitigation measures required by Alternative J will not be identified until that plan is finalized in 2018.

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Respectfully submitted,

²⁰ Tr. at 1139, ln. 18-20.

²¹ Frontlines APD Opening Comments, p. 11-12.

²² Frontlines APD Opening Comments, p. 21-22.

²³ CAISO Opening Comments, p. 10.

²⁴ CAISO Opening Comments, p. 13.

²⁵ For example, the CAISO does consider “cross boundary” solutions to address reliability issues (*see* the Harry Allen – El Dorado Project and the Delaney – Colorado River Project approved in recent CAISO transmission plans. These solutions not only “cross boundaries” between utilities, but interconnect the CAISO grid with other transmission systems, *contra* Frontlines APD Comments, Sec. 2.1.2), the SONGS substation still provides a robust energy source given its interconnections with the grid (*contra* Sec. 2.1.3); load forecasts have been updated and still show the need for SOCRE (*contra* Sec. 2.1.4); Sec. 2.1.5 bears no relevance to this case; Sec. 2.1.6 is contradicted by the evidence (See Exhibit CAISO-500, p. 11, ln. 16-19.)

²⁶ SJC APD Comments, p. 12.

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