

**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)

**NOTICE OF EX PARTE COMMUNICATIONS OF THE  
CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION**

Pursuant to Article 8.3 and 8.4 of the California Public Utilities Commission (Commission) Rules of Practice and Procedure, the California Independent System Operator Corporation (CAISO) hereby files this notice of written ex parte communication in the above captioned proceeding.

On December 9, 2016, CAISO sent the attached unsolicited written ex parte communication to all five Commissioners and their respective Chiefs of Staff and Energy Advisors.

Respectfully submitted

**By: /s/ Jordan Pinjuv**

Roger E. Collanton

General Counsel

Anthony Ivancovich

Deputy General Counsel

Anna McKenna

Assistant General Counsel

Jordan Pinjuv

Counsel

California Independent System

Operator Corporation

250 Outcropping Way

Folsom, CA 95630

Tel.: (916) 351-4429

Fax: (916) 608-7222

[jpjuv@caiso.com](mailto:jpjuv@caiso.com)

Attorneys for the California Independent  
System Operator Corporation

June 9, 2016

## **Attachment A**

December 9, 2016

California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102

Commissioners,

The CAISO seeks to clarify three topics that were discussed at the December 6, 2016 Final Oral Arguments regarding San Diego Gas & Electric Company's (SDG&E) request for a certificate of public convenience and necessity for the South Orange County Reliability Enhancement (SOCRE Project). Specifically, the CAISO clarifies (1) the North American Electric Reliability Corporation's (NERC) definition of Bulk Electric System (BES) as it applies to the South Orange County transmission system, (2) Alternative J's negative impact on the southern California 230 kV transmission corridor, and (3) SOCRE's ability to provide a second transmission source into the South Orange County area.

***The South Orange County Transmission System is BES.*** Federal Energy Regulatory Commission (FERC) Order No. 773 defines the scope of the BES and provides a process by which transmission owners or operators may request to exclude specific transmission elements greater than 100 kV from the bright line of 100 kV established in Order No. 773 based on specific conditions. In Order No. 773 FERC specifically noted that an entity would be obligated to inform NERC and WECC regarding any determination that an element of the transmission system was excluded from the definition of BES prior to the adoption of Order No. 773 and from the bright line criterion established by Order No. 773. As a result, any determination that the South Orange County transmission system is a local network and not part of the BES must be submitted to WECC and NERC for review and concurrence.

Prior to adopting the new definition of BES in Order No. 773, FERC and NERC defined BES as "the electrical generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher. Radial transmission facilities serving only load with one transmission source are generally not included in this definition."

The South Orange County transmission system clearly fell within this definition of BES because it operated at 138 kV and was physically connected to the 230 kV high voltage transmission system through multiple 138 kV lines that serve a network of 138 kV substations (*i.e.*, South Orange County is not "radially" served).<sup>1</sup> Because it was considered part of the BES prior to implementation of Order No. 773, the South Orange County transmission network continues to be part of the BES unless the CAISO or SDG&E request to exclude it, and the request is granted by either NERC or FERC, as applicable.

In Order No. 773, FERC also determined that registered entities<sup>2</sup> "were obligated to inform the Regional Entity [WECC] of any self-determination that an element is no longer part of the bulk electric system" and NERC is required to maintain a list of those elements excluded from the BES.<sup>3</sup> FERC Order 773

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<sup>1</sup> Pursuant to discretion provided under the prior rules, WECC also included radially served transmission lines within the definition of BES where a backup feed was possible, but normally open. (Order No. 743at P 48).

<sup>2</sup> All bulk power system owners, operators and users are required to register with NERC as "registered entities."  
<http://www.nerc.com/pa/comp/Pages/Registration-and-Certification.aspx>.

<sup>3</sup> <http://www.nerc.com/pa/RAPA/BES%20DL/BES%20Notification%20Review%20Guideline%202-4-14%20REMG%20App.pdf>, p. 1.



states: “a registered entity that concludes that an element is no longer part of the bulk electric system must notify the Regional Entity of such change” and that “the revised definition allows entities the discretion to “declassify” certain facilities as part of the bulk electric system, and NERC, Regional Entities and the Commission need notification of such instances to assure that the entities are appropriately implementing the revised definition.”

Neither the CAISO nor SDG&E has requested that NERC exclude the South Orange County system from being BES or applied to FERC for an exclusion. The CAISO has treated it part of the BES since the CAISO assumed operational control over the facilities. Both the CAISO and SDG&E agree that the facts do not support such an exclusion, and any exclusion would be imprudent for purposes of maintaining reliability to South Orange County customers. As a result, these facilities unequivocally remain part of the BES and subject to mandatory NERC transmission planning standards.

The South Orange County facilities also continue to be BES elements based on the Order No. 773 definition. As the CAISO pointed out in this proceeding, the South Orange County 138 kV system provides reactive support required to support San Diego import transmission, which is identified as an Interconnection Reliability Operating Limit (IROL) due to the post-transient voltage instability concern in the SDG&E and LA Basin areas after the SONGS retirement. A 100 MVAR STATCOM (Dynamic Reactive Power Device) are located at the 138 kV Talega bus, and a 40 MVAR shunt capacitor (Static Reactive Power Device) is located at Capistrano 138 kV bus.<sup>4</sup> Pursuant to NERC’s Inclusion I5 to the BES definition all of these devices are BES elements because they support voltages and transfer capability on the 138 and 230 kV systems. Intervenors assert that the reactive power devices are included in the BES, but that the network linking these devices to the BES is not. This interpretation is not logical because there would be no reason to treat the reactive power devices as BES if they could not actually provide reactive power to the BES due to their location within a local network.

The CAISO hopes that the foregoing discussion and references make clear that the South Orange County facilities are part of the BES and that neither the CAISO nor SDG&E would seek a NERC exemption for these facilities. As we have stressed in this proceeding, this issue is irrelevant to the question of whether NERC standards apply to the South Orange County facilities. Because the Southern Orange County facilities are part of the ISO Controlled Grid, they must comply with NERC planning standards pursuant to the CAISO Planning Standards, which are part of the CAISO tariff.

***Alternative J Limits the Capability of Southern California’s Backbone 230 kV Transmission System.*** The Southern California 230 kV system connecting the Los Angeles basin and San Diego is an important transmission corridor that allows significant flexibility to move energy efficiently and effectively between two major population and economic centers. This operational flexibility is vital to meeting future energy needs as the state continues to ramp up renewable generation, retire once-through-cooled gas-fired generation and deal with unexpected challenges, such as the moratorium on withdrawals at the Aliso Canyon natural gas storage facility. By putting the weaker South Orange County 138 kV system in parallel with the 230 kV system, Alternative J would significantly limit the operational flexibility provided by the this critical infrastructure by lowering maximum transfer capability.

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<sup>4</sup> This device is beyond the Talega Substation, contrary to Frontlines’ argument that the reactive power devices are only located at Talega. See Tr. at 1520:8-10. “I would submit are part of the BES, but they are at Talega.”



The 230 kV system can currently provide transfer capacity up to 2440 MW northbound and 2200 MW southbound. Based on evidence in the record, Alternative J would reduce northbound transfer capacity on the 230 kV corridor by approximately 1,000 MW, a 41% reduction, to a level that is below flows already experienced to date (*i.e.*, would create congestion). Southbound transfer capacity would be reduced by 600 MW, representing a 27% reduction. Alternative J imprudently jeopardizes overall grid flexibility in an attempt to solve sub-regional reliability issues.

Intervenors in this proceeding submit that these reliability concerns can be addressed using a special protection system (SPS). The City of San Juan Capistrano (SJC) asserted at Final Oral Argument that a “simple” SPS can address these concerns. However, an effective SPS would need to monitor at least five transmission system elements, thus exceeding the maximum number of elements that may be monitored under the CAISO Planning Standards, which were established to ensure the reliability of the SPS operation. Based on this information alone, an effective SPS is infeasible. The “simple” SPS described by SJC fails to address credible P7 N-2 (previously category C) contingencies and therefore does not meet the requirements of WECC’s Remedial Action Scheme Design Guide. Further, overly simplifying monitoring can lead to SPS tripping of transmission elements when system conditions do not necessitate tripping. It is not clear if this meets the needs of NERC Standard TPL-001-4, especially if the unnecessarily weakened system results in load shedding for a subsequent event. Moreover, the SPS that was previously proposed by SJC and FRONTLINES to mitigate the single Trabuco transformer overload issue created by Alternative J 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.

***SOCRE Provides a New Source into the South Orange County System.*** The SOCRE project provides a new and second 230 kV source into the 138 kV network in South Orange County. While the Capistrano 230/138 kV substation will rely on the same 230 kV transmission lines serving the Talega substation, the restoration times for transmission lines is significantly lower than the potentially long term outages following a major loss of substation equipment, as SDG&E’s Mr. Geier noted at the December 6 Final Oral Argument. However, in contrast to the Santa Clara-Goleta 230 kV double-circuit transmission lines in the Santa Barbara area referenced by Commissioner Florio at Final Oral Argument, the 230 kV lines serving Talega and Capistrano are comparatively short and in much more accessible terrain.

We hope these clarifications help the Commission in its deliberations on this critically important project. We strongly urge the Commission to adopt President Picker’s Alternate Proposed Decision. Both the CAISO and SDG&E have provided ample evidence on the record demonstrating that the SOCRE project is the best solution to fully address all of the critical reliability needs on the South Orange County system. In contrast, Alternative J would only partially address the needs and severely weaken the BES between the SCE and SDG&E system.

Sincerely,



Neil Millar  
Executive Director  
Infrastructure Development

**Attachment B**

## Clark, Grace

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**From:** L&R Filings  
**Sent:** Friday, December 09, 2016 4:29 PM  
**To:** 'michael.picker@cpuc.ca.gov'; Picker (Office Of The Governor), Michael; 'nicolas.chaset@cpuc.ca.gov'; 'NLC@cpuc.ca.gov'; 'scott.murtishaw@cpuc.ca.gov'; 'SGM@cpuc.ca.gov'; 'david.peck@cpuc.ca.gov'; 'DBB@cpuc.ca.gov'; 'mike.florio@cpuc.ca.gov'; 'charlyn.hook@cpuc.ca.gov'; 'sepideh.khosrowjah@cpuc.ca.gov'; 'matthew.tisdale@cpuc.ca.gov'; 'carla.peterman@cpuc.ca.gov'; 'david.gamson@cpuc.ca.gov'; 'ehren.seybert@cpuc.ca.gov'; Sandoval (California Public Utilities Commission), Cathy; 'dita.katague@cpuc.ca.gov'; 'michael.colvin@cpuc.ca.gov'; 'liane.randolph@cpuc.ca.gov'; 'rachel.peterson@cpuc.ca.gov'; 'sean.simon@cpuc.ca.gov'; 'leuwam.tesfai@cpuc.ca.gov'  
**Cc:** Casey, Keith; Millar, Neil; Smit, Denise; Pinjuv, Jordan  
**Subject:** California Independent System Operator Corporation Notice of Ex Parte Communication  
**Attachments:** Letter\_to\_CPUC\_A.12-05-020.pdf

All,

Please find attached a letter from Neil Millar, California Independent System Operator Corporation Executive Director of Infrastructure Development, regarding certain issues addressed at the December 6, 2016 Final Oral Argument in proceeding A.12-05-020. This letter will be served all parties to the proceeding, consistent with the ex parte rules.

Thank you,

### Legal & Regulatory

California ISO  
250 Outcropping Way, Folsom, CA 95630



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