UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

North American Electric Reliability Corporation	Docket No. RD20-7

MOTION TO INTERVENE AND COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION

The California Independent System Operator Corporation (CAISO) hereby files this motion to intervene and comments pursuant to Rule 214 of the Commission's Rules of Practice and Procedure[1] and the Commission's March 26, 2020 Notice of Combined Filings.[2] The CAISO supports approval of proposed Reliability Standard PRC-024-3 – Frequency and Voltage Protection Settings for Generating Resources.

I. Introduction

On March 20, 2020, the North American Electric Reliability Corporation (NERC) filed a petition requesting Commission approval of proposed Reliability Standard PRC-024-3. This proposed reliability standard resulted from a standard

[1] 18 C.F.R. § 385.214. The CAISO is a non-profit public benefit corporation organized under the laws of the State of California with its principal place of business at 250 Outcropping Way, Folsom, California 95630. The CAISO is a Balancing Authority and Transmission Operator responsible for the reliable operation of the electric grid consisting of the transmission systems of several utilities. The CAISO also serves as a Reliability Coordinator for 40 entities operating in the Western Interconnection, which includes Generator Owners that would be subject to proposed Reliability Standard PRC-024-3. The CAISO has a direct and substantial interest in this proceeding and requests that it be permitted to intervene with full rights as a party.

[2] *See* Combined Notice of Filings dated March 26, 2020. https://elibrary.ferc.gov/idmws/common/opennat.asp?fileID=15494238

authorization request developed by NERC's Inverter Based Resource Performance Task Force. Representatives of the CAISO actively participated on this task force and the standard drafting team. Proposed Reliability Standard PRC-024-3 includes important clarifications regarding how Generator Owners subject to the standard should configure their voltage and frequency protection settings so the protection does not cause a generating resource to trip or cease injecting current within a certain time period during a frequency or voltage excursion. Accordingly, approving the proposed Reliability Standard will enhance the reliability and resilience of the Bulk Power System (BPS).

II. Proposed Reliability Standard PRC-024-3 appropriately clarifies voltage and frequency protection setting requirements

The purpose of the NERC Reliability Standard PRC-024 is to ensure Generator Owners set their generator protective relays so their units remain connected during defined frequency and voltage excursions. Proposed Reliability Standard PRC-024-3 includes provisions to help ensure inverter-based resources configure their protective function controls for voltage and frequency excursions to ensure they do not trip or momentarily cease injecting current within specified no trip zones. Proposed Reliability Standard PRC-024-3 also clarifies that the region outside the no-trip zone should be interpreted as a "may-trip" zone and not a "must-trip" zone. This allows Generator Owners of inverter-based legacy resources to set protective settings to cease injecting current during certain frequency or voltage disturbances based on documented equipment limitations as opposed to a

mandatory setting not required to protect the safety or reliability of the resource's equipment.

As explained in prior filings with the Commission, the CAISO has observed inverter-based resources entering into momentary cessation within the no trip zone defined by the current version of Reliability Standard PRC-024-2.[3] As a result, the CAISO experienced a loss of supply during the clearing of routine transmission faults. To address this issue, the CAISO filed tariff revisions applicable to newly interconnecting inverter-based resources to eliminate unnecessary momentary cessation for inverters during the clearing of a transmission line fault. The Commission accepted these tariff revisions as just and reasonable because they clarified specific requirements for inverter-based resource protection controls that enhanced reliability and resilience of the CAISO-operated grid.[4] Similar to the CAISO's tariff revisions, proposed Reliability Standard PRC-024-3 provides greater clarity regarding voltage and frequency protective settings for Generator Owners and will help enhance the reliability and resilience of the BPS.

III. Conclusion

The CAISO respectfully requests that the Commission approve NERC's petition for approval of proposed Reliability Standard PRC-024-3. Approval will ensure that both synchronous and non-synchronous resources subject to the standard have a clear understanding with respect to their voltage and frequency

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[3] CAISO tariff amendment in Docket No. ER19-1153, filed February 28, 2019.

[4] *Cal. Indep. Sys. Operator Corp.,* 168 FERC ¶ 61,003 (2019) at P 18.

protection settings, so that these resources can support grid stability during defined system voltage and frequency excursions.

Respectfully submitted,

By: *<u>/s/ Andrew Ulmer</u>*

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Dated: April 20, 2020

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon all of the parties listed on the official service list for the captioned proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 20th day of April 2020.

/s/ Anna Pascuzzo

Anna Pascuzzo