

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

North American Electric Reliability Corporation)
)
)

Docket No. RR24-2-000

**MOTION FOR LEAVE TO ANSWER AND ANSWER OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION**

The North American Electric Reliability Corporation (“NERC”) submits the following answer to the protest by Constellation Energy Generation, LLC (“Constellation”) and joint comments by the Solar Energy Industries Association (“SEIA”) and the American Clean Power Association (“ACP”).¹ NERC respectfully requests leave to submit this answer and that the Federal Energy Regulatory Commission (“Commission”) waive Rule 213(a)(2) for this purpose.² NERC submits that there is good cause to accept this response as it provides additional information relevant to NERC’s proposal in this proceeding and addresses why the alternatives offered by the commenters would be inappropriate methods to address the reliability needs of the transforming Bulk-Power System (“BPS”). This answer will help ensure that the Commission has a complete basis on which to review NERC’s proposed enhancements to its Rules of Procedure (“ROP”) responding to the Commission’s directive in Docket No. RD22-4 (the “Registration Order”)³ to address the registration of material BPS-connected inverter-based resources (“IBRs”) that are not

¹ *Motion to Intervene and Protest of Constellation Energy Generation, LLC*, Docket No. RR24-2-000 (Apr. 18, 2024) [hereafter Constellation Protest]; *Comments of the Solar Energy Industries Association and the American Clean Power Association*, Docket No. RR24-2-000 (Apr. 18, 2024) [hereafter SEIA/ACP Comments].

² 18 C.F.R. 385.213(a)(2) (2024).

³ *Registration of Inverter-Based Res.*, 181 FERC ¶ 61,124 (2022) [hereafter Registration Order]; *Order Approving Registration Work Plan*, 183 FERC ¶ 61,116 (2023) [hereafter Work Plan Order].

Bulk Electric System (“BES”) assets (“unregistered IBRs”).⁴ The Commission has accepted such answers in the past when they have assisted decision-making.⁵

On March 19, 2024, NERC submitted proposed revisions to its ROP to address unregistered IBRs that in aggregate materially impact reliability of the BPS. NERC’s filing provided a robust and well-developed record documenting the aggregate impacts of non-BES IBRs that: (i) either have or contribute to an aggregate nameplate capacity of greater than or equal to 20 MVA, (ii) are connected through a system designed primarily for delivering such capacity to a common point of connection at a voltage greater than or equal to 60 kV. Based on such evidence, Commission directive, and ROP development process, NERC proposed a new category of Generator Owners (“Category 2 GOs”) and Generator Operators (“Category 2 GOPs”) that own or operate IBRs meeting those thresholds. Approving NERC’s proposal would be the first step towards ensuring that such Category 2 GOs and GOPs will become subject to applicable NERC Reliability Standards consistent with the Registration Order.⁶

Constellation and SEIA/ACP fail to demonstrate that NERC’s proposal is unjust and unreasonable. Instead, Constellation’s proposal for BES Definition revisions is premised on its request to curtail NERC’s scope of authority to the BES Definition contrary to section 215 of the Federal Power Act (“section 215”).⁷ SEIA/ACP’s proposal would result in an unnecessarily complex and unduly delayed approach to integrate unregistered IBRs in NERC’s model for a reliable BPS. While NERC appreciates the effort that will be involved as new entrants adapt to registration and compliance with Reliability Standards, the proposed alternatives would impede

⁴ NERC Request for Approval of Proposed Revisions to the Rules of Procedure to Address Unregistered Inverter Based Resources and Request for Expedited Review, Docket No. RR24-2-000 (Mar. 19, 2024) [hereinafter NERC Filing].

⁵ *See, e.g., N. Am. Elec. Reliability Corp.*, 182 FERC ¶ 61,094, at P 33 (2023).

⁶ Work Plan Order, at P 52.

⁷ 16 U.S.C. § 824o.

NERC and Commission action to ensure a reliable, resilient, and secure BPS as it evolves to welcome increasing levels of IBRs. NERC underscores that it remains committed to working with new entrants to help smooth this transition. NERC respectfully reiterates its request that the Commission approve NERC’s ROP proposal on an expedited basis.

I. RESPONSE TO COMMENTS

A. Constellation Would Curtail NERC’s Scope of Responsibility Contrary to Statute

Constellation’s Protest seeks to curtail NERC’s scope of responsibility under section 215 to the BES contrary to the statutory language stating the BPS. Constellation attempts to claim that NERC’s approach circumvented “application of the BES Definition, which is the foundation of NERC’s compliance registry process,” and that any deviation thereof would contradict section 215 and Commission precedent.⁸ This is incorrect – the BPS is the foundation of NERC’s compliance registry process. Based on Constellation’s faulty premise, it asks the Commission to reject NERC’s proposed improvements to the ROP and instead direct NERC to revise its BES Definition to address the unregistered IBRs.

Contrary to Constellation’s assertions, section 215 provides Congressional directive that the purpose of the Electric Reliability Organization (NERC) is “to establish and enforce reliability standards for the bulk-power system, subject to Commission review.”⁹ Rather, as recognized in comments by the Transmission Access Policy Study Group (“TAPS”) in this proceeding, the BES is a subset of the statutorily defined BPS.¹⁰ NERC agrees with TAPS’s legal interpretation and appreciates TAPS’s support for prompt approval of NERC’s ROP proposal.

⁸ Constellation Protest, at p. 7.

⁹ Section 215(a)(2).

¹⁰ TAPS Comments at p. 4 (quoting the Registration Order at P 1 n.3 and its citation to *Revisions to Elec. Reliability Org. Definition of Bulk Elec. Sys. & Rules of Proc.*, Order No. 773, 141 FERC ¶ 61,236 (2012), *order on reh’g*, Order No. 773-A, 143 FERC ¶ 61,053, *reh’g denied*, 144 FERC ¶ 61,174 (2013), *petition for review denied sub nom. People of the State of N.Y. v. FERC*, 783 F.3d 946 (2d Cir. 2015)).

NERC’s proposed ROP revisions would conform with NERC’s responsibility as the ERO to develop and enforce Reliability Standards for reliable operation of the BPS as defined by statute.¹¹ As defined in section 215:

“reliability standard” means a requirement, approved by the Commission under this section, to provide for reliable operation of the bulk-power system. The term includes requirements for the operation of existing bulk-power system facilities....

The term “reliable operation” means operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.¹²

In the Commission’s underlying proceeding in Docket No. RR24-2-000, it directed NERC to address unregistered IBRs that in aggregate materially impact reliability of the BPS and declined to direct NERC to revise the BES Definition.¹³ The Commission stated, “[i]n the IBR Registration Order, the Commission gave NERC discretion as to how to address the registration of Bulk-Power System-connected unregistered IBRs, ‘whether by working with stakeholders to change the BES definition, a change to its registration program, or some other solution.’”¹⁴ The Commission’s order thereby recognized NERC’s authority to register users, owners, and operators of the BPS (vs. only BES) consistent with section 215. In addition, a category of GOs and GOPs with non-BES assets is anticipated to facilitate standard drafting team efforts to tailor requirements that take into account the unique characteristics associated with different types of IBRs.¹⁵

¹¹ NERC confirms that nothing in its proposal seeks to revise the BPS definition.

¹² Section 215(a)(3) and (4).

¹³ Registration Order, at P 1; Work Plan Order, at P 43.

¹⁴ Work Plan Order, at P 43 (quoting the Registration Order, at P 1).

¹⁵ As stated in NERC’s Filing, out of an abundance of caution, NERC underscores that nothing herein is intended to preclude consideration of BES Definition revisions.

B. SEIA and ACP Would Unduly and Unnecessarily Delay and Complicate Efforts to Address Unregistered IBRs

SEIA/ACP claim that the record does not demonstrate that the affected unregistered IBRs are in aggregate material to the BPS. SEIA and ACP oppose NERC's proposed ROP revisions, seeking a slower approach to integrate IBRs in the NERC regulatory model with technical conferences and workshops that would eventually result in a more individualized or regional approach to registration.¹⁶ This slower and unduly complex approach ignores the robust and well-established record demonstrating the grid transformation across North America and the urgency of addressing the reliability risks presented by the rapidly evolving grid.

NERC's Filing demonstrated that the electric power grid in North America is undergoing a significant transformation at an unprecedented pace of change, with advances in IBRs having a major impact. One core identified issue has been the fact that nearly 16% of BPS-connected IBRs are not subject to registration and therefore subject to compliance with NERC Reliability Standards. As discussed in NERC's Filing, this means that while the majority of BPS capacity was historically subject to compliance with Reliability Standards, this has changed as a result of the changing resource mix and that gap is expected to widen. NERC's IBR Strategy highlights that, "[i]mplemented correctly, inverter technology can provide significant benefits for the BPS; however, the new technology can introduce significant risks if not integrated properly. Based on recent analysis, these are high impact and high likelihood events that require substantive action by the ERO..."¹⁷ Multiple event reports, including those cited in the Registration Order and NERC's Filing, demonstrate these risks. Thus, NERC's proposed thresholds reflect a rational approach developed as a result of years of analysis and is designed to ensure that only IBRs that in aggregate

¹⁶ See, e.g., SEIA/ACP Comments, at p. 6.

¹⁷ NERC, IBR Strategy, at p 1, https://www.nerc.com/comm/Documents/NERC_IBR_Strategy.pdf.

are material to BPS reliability could become subject to Reliability Standards. If the Commission approves NERC’s proposal, BPS-impactful IBRs would be subject to compliance on par with BPS-impactful synchronous resources (although actual Reliability Standards obligations might vary).¹⁸ SEIA/ACP make light of the years’ worth of data cited in support of NERC’s proposal by ignoring both the 20 MW aggregate capacity and 60 kV voltage connection materiality thresholds in NERC’s proposed Category 2 GO/GOP registry criteria.

The primary data provided in SEIA/ACP’s filing is a list of presently installed IBR resources by Balancing Authority Areas (“BAA”). That list does not take into account the ever-growing interconnection queue. Further, breaking down installed IBR capacity by BAA provides an incomplete view as there are no barriers that protect a BAA from an event on a neighbor’s system. In addition, SEIA/ACP misrepresent the results of NERC’s Level 2 Alert Report where the report stated – among other conclusions – that about 27% of the BPS-connected solar PV fleet are not configured with recommended ride-through mode settings.¹⁹ Key findings and recommendations from the Level 2 Alert Report also included, for example, that many GOs indicated they did not have requested facility data readily available, that voluntary NERC recommendations are not being implemented, and that approximately one-quarter of reported facilities use phase lock loop loss of synchronism protection with a trip threshold that results in an increased likelihood of inadvertent tripping during normally cleared grid faults.²⁰ In contrast with NERC data, SEIA/ACP’s material provides a very incomplete picture.

¹⁸ See, NERC Filing, at p. 11.

¹⁹ NERC, IBR Performance Issues Report: Findings from the Level 2 Alert, at p. 5, https://www.nerc.com/comm/RSTC_Reliability_Guidelines/NERC_Inverter-Based_Resource_Performance_Issues_Public_Report_2023.pdf [hereinafter Level 2 Alert Report].

²⁰ *Id.* at pp. iv-v.

Interestingly, SEIA/ACP also seem to state that adoption of Reliability Guidelines by some owners and operators of unregistered IBRs makes such entities not material. Such an argument is inapposite. If this assertion were true, enhanced reliability due to implementing NERC Reliability Guidelines would reflect the materiality of these IBR assets. However, SEIA/ACP provide no evidence for the claim that many new IBR resources are using equipment to ensure they ride through grid disturbances and avoid reliability concerns. While NERC appreciates those unregistered IBRs that are implementing NERC recommendations, NERC’s recent Level 2 Alert Report for IBRs “shows that the voluntary recommendations set forth in NERC guidelines and other publications are not being implemented.”²¹

Further, SEIA/ACP’s request to delay action registering Category 2 GOs/GOPs fails to recognize the urgent reliability need documented and presented by the changing resource mix, an urgency which the Commission itself has recognized in two orders regarding IBRs. The Registration Order and order accepting the Work Plan directed NERC to: (i) modify its processes to encompass unregistered IBRs by May 18, 2024; (ii) ensure that unregistered IBR owners and operators under the new registry criteria are identified by May 18, 2025; and (iii) register new entrants so that they are required to comply with applicable Reliability Standards by May 18, 2026. In addition, under Order No. 901, the Commission directed NERC to expeditiously develop new or modified Reliability Standards addressing reliability gaps pertaining to IBRs.²² Order No. 901 stated that the Commission took such “action in light of the rapid change in the mix of generation resources connecting to the Bulk-Power System, including the addition of an ‘unprecedented proportion of nonsynchronous resources’ projected to connect over the next decade....”²³ The

²¹ *Id.* at p. iv.

²² *Reliability Standards to Address Inverter-Based Resources*, Order No. 901, 185 FERC ¶ 61,042 (2023) (quoting NERC’s 2020 Long Term Reliability Assessment Report.) (footnotes omitted).

²³ *Id.* at P 2.

Commission later added, “as a general matter, we believe that there is a need to have all of the directed Reliability Standards effective and enforceable well in advance of 2030, at which time IBRs are projected to account for a significant share of the electric energy generated in the United States.”²⁴ NERC’s proposal would facilitate North America’s timely development of a reliable modern grid with an increasing proportion of IBRs.

II. CONCLUSION

For the reasons stated in NERC’s request for approval of proposed ROP revisions to address unregistered IBRs and this filing, NERC respectfully requests that the Commission accept NERC’s proposed ROP revisions and reject Constellation and SEIA/ACP’s proposals.

Respectfully submitted,

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²⁴ *Id.* at P 57.

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in the above-referenced proceeding.

Dated at Washington, D.C. this 30th day of April 2024.

/s/ Candice Castaneda

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