UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Reliability Standards for Frequency and Voltage Protection Settings and Ride-Through for Inverter-Based Resources

MOTION FOR LEAVE TO COMMENT OUT-OF-TIME AND LIMITED COMMENTS OF DERIVA ENERGY, LLC

Pursuant to Rules 212 and 214 of the Federal Energy Regulatory Commission's (FERC or Commission)¹ Rules of Practice and Procedure and the notice of proposed rulemaking issued on December 19, 2024 (NOPR),² Deriva Energy, LLC (Deriva) respectfully requests leave to provide the following limited comments on the Notice of Proposed Rulemaking (NOPR), which proposes to adopt, *inter alia*, Reliability Standard PRC-029-1 on frequency and voltage ride-through requirements for inverter-based generating resources (IBRs).

I. COMMENTS

Deriva does not ask for any substantive changes to the existing language of proposed Reliability Standard PRC-029-1. Rather, Deriva asks that, in any order approving that proposed standard, the Commission incorporate and emphasize the North American Electric Reliability Corp.'s (NERC) conclusion that the exemption process under the standard is necessary because requiring Generator Owners to "wholesale retrofit and redesign legacy facilities currently in operation to meet the requirements of the proposed standard would be unreasonable and unduly

² Reliability Standards for Frequency and Voltage Protection Settings and Ride-Through for Inverter-Based Resources, NOPR, 189 FERC ¶ 61,212 (2024).

¹ 18 C.F.R. §§ 385.212, 385.214 (2024).

burdensome, and . . . could lead to undesirable impacts on reliability."³ This rationale in the NERC petition is based on several key factors driving the need for an exemption process:

First, as other commenters have pointed out, most existing IBRs are unable to comply fully with all of the proposed standard's ride-through requirements. Original equipment manufacturers design and construct IBR equipment to comply with the reliability standards that are in effect at the time they are designed and constructed. PRC-029-1 has been under consideration only for a relatively short period of time, and it imposes voltage ride-through requirements that are more stringent than prior ride-through reliability standards (i.e., it requires that IBRs be able to ride-through a broader spectrum of voltage excursions, including more extreme voltage excursions, than prior standards). Accordingly, there are only a limited number of newer IBR equipment models that are available on the market that can satisfy the full set of upgraded voltage ride-through requirements set forth in proposed Reliability Standard PRC-029-1.

Second, the newer, fully-compliant equipment, even if available, is not interchangeable with earlier models, and often does not fit within existing infrastructure. A single component of an IBR generator – for example, a converter – cannot be swapped out for a replacement component of a different model type, while leaving the other components untouched. Rather, if the single component is to be swapped out for a component of a different model type, then the other key components – for example, the driveshaft, the turbine, the inverter – also would have to be replaced with components of the same model type, resulting in a far more costly retrofit which may not be economically feasible, complicating maintenance of the facility and forcing early retirement.

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³ North American Electric Reliability Corporation, Petition for Approval of Proposed Reliability Standards PRC-029-1 and PRC-024-4, Docket No. RM25-3-000, at 38 (filed Nov. 4, 2024) (NERC Petition).

Third, even if all the components of the generator could be switched out to a newer model, in most cases the new model would not be able, physically, to fit within the existing infrastructure of the relevant plant. The infrastructure housing most IBR equipment – for example, the concrete foundations and towers for a wind generator – is capable of housing only a specific model or subset of models of IBR technology. The models of IBR equipment that are able to satisfy the full panoply of ride-through requirements set forth in proposed Reliability Standard PRC-029-1 tend to be larger than the models for which much existing IBR infrastructure was built. In many cases, the existing infrastructure will not be able to accommodate, physically, the upgraded equipment models that are able to address the full set of PRC-029-1 ride-through requirements; rather, the existing infrastructure would have to be torn down and rebuilt completely in order to accommodate commercially-available equipment types that can meet the full scope of PRC-029-1 ride-through requirements. Again, such forced retrofits, redesigns and construction necessary to accommodate equipment replacements could greatly complicate upkeep of legacy wind facilities and force early retirements.

Fourth, in many cases, applicable zoning and similar regulatory restrictions, like Federal Aviation Administration height restrictions, will not accommodate replacement of existing equipment with equipment that is able to fully comply with PRC-029-1. Existing wind facilities were constructed to comply with the zoning and other similar regulatory requirements that were in effect at the time of design and construction. Installation of new equipment compliant with the PRC-02901 requirements, which are often larger than older models, may not be feasible under these requirements. Furthermore, for some wind facilities, zoning rules may have been changed since the applicable wind facility was originally constructed; and the revised rules, while allowing the existing facility to remain, impose updated rules – for example, new setback requirements or

tower height limitations – that will not permit the types of material modifications to the facility necessary to accommodate the type of updated, commercially-available equipment needed for full compliance with PRC-029-1. Indeed, Deriva has at least two such facilities that would be subject to such changed restrictions. For these reasons, a requirement that facilities replace existing equipment with the new equipment required to accommodate the full set of PRC-029-1 requirements may be tantamount, under applicable zoning and similar regulatory requirements, to compelling a substantial redesign, retrofit and/or reconstruction of the facility, impeding upkeep and possibly forcing the early retirement of the facility.

Fifth, proposed Reliability Standard PRC-029-1 recognizes these issues through the exemption process set forth in Requirement R4. In the Technical Rationale issued by the North American Electric Reliability Corporation (NERC), NERC emphasized that its effort to expand the ride-through requirements required NERC "to balance the expansion [of the ride-through requirements] with the feasibility of producing and installing equipment that can meet the newly proposed criteria." NERC also emphasized that it sought to avoid the circumstance where "expanded criteria lead to widespread non-compliance of legacy IBR due to hardware limitations." For this reason, Requirement R4 of the proposed standard provides Generator Owners with an exemption for "known hardware limitations that prevent the IBR from meeting Ride-through criteria."

Sixth, the implementation of the exemption provisions of PRC-029-1 is intended to accomplish the "balance" between encouraging Generator Owners to achieve full compliance with

⁴ NERC Technical Rationale (Sept. 17, 2024) (Technical Rationale Sept. Draft), https://www.nerc.com/pa/Stand/202002 Transmissionconnected Resources DL/2020-02 PRC-029-1 Technical Rationale redlines 091724.pdf.

⁵ *Id*.

the updated ride-through requirements while not driving their facilities toward wholesale redesign and retrofit and potential premature retirements. It is this concern that prompted NERC to inform the Commission, in support of the exemption process, that NERC had "determined that the anticipated difficulty of Generator Owners having to wholesale retrofit and redesign legacy facilities currently in operation to meet the requirements of the proposed standard would be unreasonable and unduly burdensome" because it could "lead to undesirable impacts on reliability." The exemption provisions should be interpreted and applied in a manner that reflects the important balance identified above.

For these reasons, Deriva asks that the Commission, in any order approving proposed Reliability Standard PRC-029-1, incorporate and emphasize NERC's point that where a Generator Owner is unable to bring its legacy IBR into full compliance with PRC-029-1 without a "wholesale retrofit" or a "wholesale . . . redesign" of that facility, then the Generator Owner will not be obligated to undertake such a "wholesale retrofit" or "wholesale . . . redesign." Reinforcing NERC's justification for the limited exemptions provided under PRC-029-1 will help give owners of legacy facilities the assurance that they can continue to make life-extending investments in those facilities well into the future.

II. MOTION FOR LEAVE TO COMMENT OUT-OF-TIME

Deriva respectfully submits that there is good cause for the Commission to allow these limited out-of-time comments. The comments in this proceeding relating to the exemption provisions in Requirement R4 focus on the need for an exemption for generating facilities that are not "in-service" on the date that PRC-029-1 becomes effective. To Deriva's knowledge, no other party to this proceeding has addressed squarely the obligations of Generator Owners that own

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⁶ NERC Petition at 38.

legacy IBRs to come into full compliance with proposed Reliability Standard PRC-029-1 pursuant

to the language of Requirement R4. Deriva asks the Commission to incorporate and emphasize

NERC's rationale for the exemption process in order to help clarify the scope of the exemption,

and to allow Generator Owners to plan adequately for future investments.

Deriva also would emphasize that taking Deriva's comments into consideration in this

proceeding will not unduly disrupt the proceeding. Deriva does not ask for any changes to the

proposed Reliability Standard PRC-029-1. Rather, Deriva only asks the Commission to

incorporate and emphasize NERC's stated rationale for the adoption of Requirement R4. For these

reasons, Deriva respectfully submits that there is good cause to allow Deriva to submit, and for the

Commission to consider, these comments.

III. **CONCLUSION**

Deriva respectfully requests that the Commission accept these comments and consider this

input when acting on the NOPR, and provide the clarifications requested above by Deriva.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in these proceedings.

Dated this 11th day of June, 2025.

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