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| NOGRR Number | [245](https://www.ercot.com/mktrules/issues/NOGRR245) | NOGRR Title | Inverter-Based Resource (IBR) Ride-Through Requirements |

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| Date | January 23, 2024 |

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| Market Segment | Independent Generators |

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| Comments |

**Comments of the Advanced Power Alliance in support of the Reliability and Operations Subcommittee (ROS) endorsed version of Nodal Operating Guide Revision Request (NOGRR) 245.**

The Advanced Power Alliance (APA) and its member companies support efforts to maintain reliability in the Electric Reliability Council of Texas (ERCOT) power region, enhance the ability of Inverter-Based Resources (IBRs) to ride-through grid disturbances, and create transparency around the impacts of NOGRR245. APA appreciates the considerable feedback that ERCOT, stakeholders, and Original Equipment Manufacturers (OEMs) have provided on NOGRR245 through written comments and discussions in various forums.

APA continues to support the September 14, 2023 ROS-endorsed version of NOGRR245 that establishes more robust ride-through requirements for new IBRs, allows legacy IBRs to use commercially reasonable and technically feasible efforts to comply with newly proposed frequency and voltage ride-through requirements, and utilizes most of the same performance requirements from the ERCOT comments filed January 8, 2024. APA remains concerned that NOGRR245, as proposed by ERCOT, will have far-reaching impacts from a reliability perspective, will increase costs for consumers, and will diverge from long-standing regulatory precedent creating a chilling effect on new generation capacity investment in the ERCOT region.

The ERCOT-sponsored proposal differs from the ROS-endorsed version such that ERCOT’s proposal could lead to the expulsion from the market and premature retirements of legacy IBRs for failure to comply if ERCOT does not provide good cause exceptions. Given ERCOT’s record-breaking demand from consumers for supply, this is an imprudent risk to the overall reliability of the ERCOT system. Additionally, prohibiting IBRs from operating in the market will make ERCOT more reliant on fewer energy resources, removing those generation resources that provide downward pressure on market costs. Moreover, retroactive application of regulatory constructs with unfettered restrictions up to disconnection and premature retirements will upend contracts such as Power Purchase Agreements, eliminate landowner royalty payments, and negatively impact local taxing authority revenue. These retroactive requirements will disincentivize capital investments required for repower and retrofits, as well as creating a chilling effect on investment in new generation resources. Ultimately, it creates an environment where market certainty is called into question because of post-operational revisions to existing rules at a time when demand is increasing and ERCOT needs every megawatt of currently available and expected capacity to reliably serve Texans.

While APA believes ERCOT’s insistence on moving forward with NOGRR245 before the North American Reliability Corporation (NERC) completes its development of standards relating to IBR ride-through requirements is altogether premature, APA especially disagrees with the retroactive application of new regulatory requirements like these which will impose increased costs, restrict operations, and cause premature retirements. Additionally, the Texas Constitution prohibits the Legislature from enacting any law impairing the obligations of contracts and, similarly, retroaction application of regulations that impair existing contracts is disfavored. Despite this precedent, and in the interest of increased reliability and market certainty, APA has supported the ROS-endorsed version of NOGRR245 that imposes retroactive application of most of ERCOT’s performance requirements.

Additionally, there still has been no comprehensive reliability, technical, or economic study conducted to understand the problem ERCOT is trying to solve and whether ERCOT’s version of NOGRR245 is an appropriate remedy. Nor has ERCOT conducted a study that distinguishes the reliability impacts of losing a portion of existing IBR capacity due to noncompliance with NOGRR245 as proposed by ERCOT, compared to ERCOT allowing for a limited number of good cause exceptions for existing IBRs, as FERC and NERC appear to support.

Moreover, no consideration has been given to taking a more holistic view of grid stability, including transmission and other commercially available and fiscally responsible solutions laid out in public filings. Before implementing a policy that may result in retiring or suspending operations of a significant volume of IBRs, ERCOT should:

* Perform a study identifying the expected IBR megawatts unable to comply with ERCOT’s NOGRR245’s requirements and model the effects of retiring and/or suspending that generation capacity on resource adequacy and the costs that are borne by retail customers.
* Conduct a systemic analysis to determine the most efficient, least detrimental (i.e., narrowly tailored) approach, including using grid-forming inverters, synchronous condensers, and other transmission improvements or upgrades. ERCOT’s own recent study results on synchronous condensers and grid-forming inverter-based energy storage resources suggest that these existing technologies could reduce the claimed need for more stringent IBR ride-through requirements for existing IBRs.

Original Equipment Manufacturers have filed comments that emphasize the importance of an accepted testing and verification procedure which currently does not exist. The Institute of Electrical and Electronics Engineers (IEEE) is currently developing IEEE 2800.2, which defines recommended practices for test and verification procedures to confirm plant-level conformance of IBRs interconnected to the bulk power system. As GE Vernova describes in its most recent comments, “readiness of IEEE 2800.2 is of high importance in assessing compatibility to IEEE 2200.” Testing ride-through capabilities will produce different results under different conditions and guidance. The adoption of IEEE 2800.2 will ensure OEMs can design a universal standard that conforms to the IBR ride-through standards that are adopted by both NERC and ERCOT. As Vestas states in its November 1, 2023, comments, “discussions on IEEE 2800.2 are still evolving, and the verification process itself may raise difficulties in demonstrating compatibility to certain requirements, which may drive further changes to both requirements and product design.” Given the need stated by OEMs for standard testing and verification to ensure safe operation and reliable power generation resources, APA believes the adoption of IEEE 2800.2 is a crucial step in the process of ensuring conformance of new ride-through requirements and supports the recommendation of OEMs related to designing a universal standard for IBRs. APA continues to be concerned that ERCOT’s proposed standards are premised entirely on technologies that have not yet materialized and that have not yet been demonstrated to be physically or commercially viable as evidenced by OEM comments.

**Conclusion.**

The Advanced Power Alliance supports well-reasoned voltage ride-through requirements that are non-discriminatory on a prospective basis, or that are commercially reasonable and technically feasible for existing IBRs and WGRs. As such, APA believes that the adoption of ERCOT’s January 8, 2024, NOGRR245 would be unfair, discriminatory, and imprudent because it unreasonably imposes voltage ride-through standards retroactively that may be technically infeasible and/or commercially unreasonable, which could lead to a mass exodus of generation resources from the market. For the reasons stated here and in prior comments, we continue to support the ROS-endorsed version of NOGRR245 from September 14, 2023, as well as changes provided by Invenergy, NextEra Energy Resources, and Southern Power Company on January 23, 2024.

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| Revised Cover Page Language |

None

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| Revised Proposed Guide Language |

None