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| NOGRR Number | [272](https://www.ercot.com/mktrules/issues/NOGRR272) | NOGRR Title | Advanced Grid Support Requirements for Inverter-Based ESRs |

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| Date | June 13, 2025 |

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| Submitter’s Information |
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| Market Segment | Independent Generator |

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| Comments |

NextEra Energy Resources appreciates the opportunity to provide feedback on Nodal Operating Guide Revision Request (NOGRR) 272, Advanced Grid Support Requirements for Inverter-Based ESRs.

NextEra Energy Resources is one of the country’s largest energy infrastructure companies. In ERCOT, the company, through its subsidiaries, currently owns and operates approximately 7,500 megawatts of wind, solar, and battery energy storage. NextEra Energy Resources has invested more than $20 billion in Texas, demonstrating our commitment to investing in the state, creating jobs and serving the state’s energy needs with reliable, low-cost energy.

Given NextEra Energy Resources’ investment in Texas and the ERCOT market, the company has a strong interest in, and fully supports, ERCOT’s focus on maintaining the reliability of the ERCOT system. NextEra Energy Resources concurs with the fundamental reliability benefits of this new technical standard, including its mandatory application to future Energy Storage Resources (ESRs). We are actively evaluating the integration of Grid-Forming (“GFM”) technology across various markets and are eager to enhance ERCOT's reliability support.

Our goal in providing this feedback is to provide ERCOT with considerations that address the need for enhanced clarity, defined expectations, and commercial sensitivities to enhance implementation.

**NextEra Energy Resources’ Comments**

* Suggests that any chosen effective date should be forward-looking and reflect the approval of the Public Utility Commission of Texas (PUCT). Existing assets with Standard Generation Interconnection Agreements (SGIAs) approved before this forward-looking effective date should be grandfathered to only comply with current standard.
* Requests ERCOT to clarify how it intends to handle one or more situations where a previously approved SGIA may need to be amended. ESRs require ongoing augmentation over the life of the asset to maintain the energy storage duration and capacity of the resource. Any augmentation work undertaken after commercial operation that may require SGIA amendments should not impact the grandfathered status of ESRs with original SGIAs before the forward-looking date.
* Recommends that ERCOT staff document compliance requirements, performance metrics, and exemptions based on operational scenarios to be clearly outlined in Section 2.14, Advanced Grid Support Requirements for Inverter-Based ESRs.
* Requests ERCOT to provide additional clarity regarding Advanced Grid Support (“AGS”)-ESR testing and model acceptance criteria for co-located AGS-ESR (GFM) and existing or prospective Wind/Solar Grid-Following (“GFL”).
* Suggests limiting the Short Circuit Ratio (“SCR”) for which the AGS-ESR must be tested and required to ride through disturbances specified in the Dynamic Working Group (DWG) Procedure Manual. Feedback from various Original Equipment Manufacturers (“OEMs”) has indicated it may not be feasible to configure controls to meet requirements within the currently proposed broad SCR range of 1.2 to infinity (zero impedance test setup).
* Recommends modifying the test setup requirements, such as the initial dispatch, so the ESR is tested for AGS functionalities requiring a power boost only when operating below rated power (e.g., at 70-80% power output).
* Recommends further clarity on GFM response time when the ESR is idle. Requiring a grid-forming response any time the plant is online and idle would significantly impact the equipment lifecycle and auxiliary energy usage that is charged retail pricing for providing wholesale grid-reliability services.

After reviewing the DWG Procedure Manual approved at the May 2025 Reliability Operations Subcommittee (ROS), NextEra Energy Resources remains committed to actively collaborate with ERCOT staff regarding technical expectations. We are exploring methods to meet these expectations in collaboration with OEMs. We believe model testing and validation will necessitate close coordination amongst ERCOT, Resource Entities, and OEMs, especially during the early phases of AGS implementation. We anticipate that this process will be iterative and will evolve over time.

NextEra Energy Resources supports a market-based framework that compensates ESRs for providing AGS services when required to maintain a minimum State of Charge (SOC) and headroom for responding to system disturbances. ESRs with sufficient SOC and operating below max power can deliver more effective AGS responses than those at full capacity. This market-based framework should also enable ERCOT to target procurement in regions with weak grid issues. For example, Nodal Protocol Revision Request (NPRR) 1278, Establishing Advanced Grid Support Service as an Ancillary Service, with ERCOT, Independent Market Monitor (IMM), stakeholder, and other interested parties' input, could be an option for enabling such a market-based framework.

NextEra Energy Resources believes NOGRR272, Advanced Grid Support Requirements for Inverter-Based ESRs, should proceed forward with our suggested changes for clarity.

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| Revised Cover Page Language |

None

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| Revised Proposed Guide Language |

None