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

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| Date | August 1, 2025 |

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| Submitter’s Information |
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| Cell Number |  |
| Market Segment | Not Applicable |

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| Comments |

ERCOT submits these comments in response to various stakeholder comments and to propose additional Nodal Operating Guide Revision Request (NOGRR) 272 edits:

* For clarity, an Energy Storage Resource (ESR) is not required to reserve its capacity or State of Charge (SOC) to provide advanced grid support.
* HGP Storage submitted comments on July 10, 2025, citing paragraph (a) of Texas Utilities Code § 39.918, however ERCOT is unable to locate the quoted language in any statute. Regardless, the adoption of requirements that are specific to a category of Resources is not discriminatory *ipso facto* as each technology has unique characteristics that may necessitate reliability requirements specific to those characteristics. ERCOT believes that the requirements proposed for inverter-based ESRs in NOGRR272 are reasonable in their applicability to ESRs and not discriminatory.
* To recognize the Joint Commenters’ concerns in their July 9, 2025 comments, while ensuring timely adoption of advanced grid support, ERCOT agrees to further revise the applicability date to April 1, 2026. This will also ensure that the effective date is after the potential Public Utility Commission of Texas (PUCT) approval of NOGRR272, which if approved is anticipated in fall 2025.

Certain stakeholders have also raised concerns that the presence of too many “Grid-forming” (GFM) Inverter-Based Resources (IBRs), which is similar to the advanced grid support proposed for ESRs in this Revision Request, may cause issues. Power systems have traditionally operated with a high penetration of synchronous generators which are GFM. The interconnection processes used by ERCOT and the interconnecting Transmission Service Providers (TSPs) ensure reliable integration and identification of potential system limitations related to any proposed interconnection with the ERCOT System. Additionally, before proposing NOGRR272 and the related Planning Guide Revision Request (PGRR) 121, ERCOT conducted extensive studies and coordinated with findings and observations from other regions that have adopted GFM requirements for ESRs. ERCOT's assessment found significant benefits, including reducing event impact and improving grid stability, with no major issues observed.[[1]](#footnote-1)

ERCOT has considered the concerns regarding potential issues caused by higher numbers of ESRs providing advanced grid support. Those concerns would only be valid if interconnection occurred without thorough studies and coordination. If NOGRR272 and PGRR121 are adopted, all new Resources interconnecting to the ERCOT System, including Resources providing advanced grid support, will continue to be examined and coordinated through the ERCOT interconnection process. ERCOT is confident that the proposed NOGRR272 and PGRR121 requirements in combination with current interconnection and operation processes will not only facilitate the reliable integration of new advanced grid support-capable ESRs, but will improve the reliability and stability of the overall grid.

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| Revised Cover Page Language |

None

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| Revised Proposed Guide Language |

**2.14 Advanced Grid Support Requirements for Inverter-Based Resources (IBRs)**

(1) An Energy Storage Resource (ESR) shall provide the following advanced grid support when within the inverter current limit.

(a) An ESR shall meet the modeling requirements described in Planning Guide Section 6.2, Dynamics Model Development, to demonstrate its capability to maintain an internal voltage phasor in the sub-transient-to-transient timeframe and control the voltage phasor to maintain synchronism with the ERCOT Transmission Grid.(2) An ESR interconnected to the ERCOT Transmission Grid pursuant to a Standard Generation Interconnection Agreement (SGIA) executed before April 1, 2026 is not required to comply with the requirements of this Section. The requirements of this Section apply to those portions of any subsequent ESR modifications that add MW capacity or make non-in-kind replacements of equipment.

1. *See generally,* ERCOT Advanced Grid Support Inverter-based Energy Storage System Assessment and Adoption Discussion, IBR Working Group (July 12, 2024), presentation available at: <https://www.ercot.com/files/docs/2024/07/09/2024_07_ERCOT_IBRWG_ERCOT%20Advanced%20Grid%20Support%20Inverter-based%20ESRs%20Assessment%20and%20Adoption%20Discussion_v1_.pdf>; *see also generally,* NOGRR272/PGRR121 Advanced Grid Support Requirements for Inverter-Based ESRs, Reliability and Operations Subcommittee (Feb. 6, 2025), presentation available at: https://www.ercot.com/files/docs/2025/02/03/15-2025\_feb\_ros\_nogrr272\_pgrr121\_ercot.pdf. [↑](#footnote-ref-1)