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| **Date:** | June 11, 2024 |
| **To:** | Board of Directors |
| **From:** | Caitlin Smith, Technical Advisory Committee (TAC) Chair |
| **Subject:** | Non-Unanimous Revision Requests Recommended by TAC for Approval |

## Issue for the ERCOT Board of Directors

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| **ERCOT Board of Directors Meeting Date:** June 18, 2024  **Item No.:** 9.1 |

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| **Issue:**Consideration of the following Revision Requests: Nodal Protocol Revision Requests (NPRRs) and Nodal Operating Guide Revision Request (NOGRR) recommended for approval by TAC (with opposing votes recorded):  * NPRR1224, ECRS Manual Deployment Triggers – URGENT; and * NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT. |
| **Background/History:** **Unless otherwise noted: (i) all Market Segments participated in each vote; (ii) For NPRRs, ERCOT Credit Staff and the Credit Finance Sub Group (CFSG) have reviewed the NPRR and do not believe it requires changes to credit monitoring activity or the calculation of liability; (iii) ERCOT supports the Revision Request; and (iv) the Independent Market Monitor (IMM) has no opinion on the Revision Request.**   * ***NPRR1224, ECRS Manual Deployment Triggers – URGENT***   **Sponsor:** ERCOT  **Proposed Effective Date:** The first of the month following Public Utility Commission of Texas (PUCT) approval  **Estimated Impacts:** No impact  **Revision Description:** This NPRR introduces a trigger that ERCOT may use to manually release ERCOT Contingency Reserve Service (ECRS) from Security-Constrained Economic Dispatch (SCED)-dispatchable Resources when the system power balance constraint is consistently violated and the MW amount of the power balance violation is at least 40 MW for ten consecutive minutes. This NPRR also requires that the Energy Offer Curves for the capacity assigned to ECRS be offered at no less than $750 per MWh.  **TAC Decision:** On 5/22/24, TAC voted to recommend approval of NPRR1224 as recommended in the 5/9/24 PRS Report as revised by TAC. There were ten opposing votes from the Consumer (6) (Residential, OPUC, CMC Steel, Lyondell Chemical, City of Eastland, City of Dallas) and IREP (4) (Reliant, Rhythm Ops, APG&E, Demand Control 2) Market Segments.  **ERCOT Opinion:** ERCOT supports approval of NPRR1224.  **ERCOT Market Impact Statement:** ERCOT Staff has reviewed NPRR1224 and believes the market impact for NPRR1224 provides an additional trigger that the ERCOT Control Room Operators may use to manage the release of ECRS Capacity to SCED in the near term, but acknowledges longer-term solutions will be proposed in subsequent NPRR(s).  **IMM Opinion:** See 5/15/24 and 5/17/24 IMM comments   * ***NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT***   **Sponsor:** ERCOT  **Proposed Effective Date:**  The first of the month following PUCT approval for all sections, with the exception of the grey-boxed paragraph (4)(c) of Section 2.12.1, which will be effective no earlier than March 1, 2025  **Estimated Impacts:** Between $150k and $250k; Between $1.3M and $1.8M (Annual Recurring O&M); Between $0.5M and $0.8M (Short term contract labor O&M); Between 7.2 and 8.2 Full-Time Employees (FTEs)  **Revision Description:** This NOGRR replaces the current voltage ride-through requirements for Intermittent Renewable Resources (IRRs) with voltage ride-through requirements for Inverter-Based Resources (IBRs) and Type 1 and Type 2 Wind-powered Generation Resources (WGRs) and provides new frequency ride-through requirements for IBRs and Type 1 and 2 WGRs consistent with or beyond requirements identified in the new 2800-2022 - Institute of Electrical and Electronics Engineers (IEEE) Standard for Interconnection and Interoperability of Inverter-Based Resources (IBRs) Interconnecting with Associated Transmission Electric Power Systems (“IEEE 2800-2022 standard”).  **TAC Decision:** On 6/7/24, TAC voted to recommend approval of NOGRR245 as recommended by TAC in the 3/27/24 TAC Report as amended by the 6/5/24 ERCOT comments as revised by TAC. There was one opposing vote from the IREP (Demand Control 2) Market Segment and ten abstentions from the Independent Generator (Luminant), IPM (2) (Morgan Stanley, SENA), IREP (3) (Reliant, Rhythm Ops, APG&E), and Municipal (4) (GP&L, DME, CPS Energy, Austin Energy) Market Segments.  **ERCOT Opinion:** ERCOT supports approval of NOGRR245.  **ERCOT Market Impact Statement:** ERCOT has reviewed NOGRR245 as recommended for approval by TAC in the 6/7/24 TAC Report and believes the rate and severity of ride-through failures will be reduced as Resource Entities maximize their ride-through capability and implement the modified performance failure mitigation process. This version of NOGRR245 is a reasonable compromise that is responsive to most stakeholder concerns while addressing the reliability concerns ERCOT had with the version of NOGRR245 in the 3/27/24 TAC Report. Customers will likely continue to face exposure to the current high risk of instability and uncontrolled Outages until improvements are implemented by the Resource Entities of IBRs and Type 1 and Type 2 WGRs. As improved models are submitted as part of maximization efforts, ERCOT may discover limitations that had not been previously modeled leading to transmission congestion or transmission project needs as well.  The TAC Reports and Impact Analyses for these Revision Requests are included in the [ERCOT Board meeting materials](https://www.ercot.com/calendar/06182024-Board-of-Directors-Meeting).  In addition, these Revision Requests and supporting materials are posted on the ERCOT website. |
| **Key Factors Influencing Issue:** The PRS met, discussed the issues, and submitted a report to TAC regarding NPRR1224.  The ROS met, discussed the issues, and submitted a report to TAC regarding NOGRR245. The TAC met, discussed the issues, and submitted a report to the Board regarding NOGRR245. The Board remanded NOGRR245 to TAC. The TAC met, discussed the issues, and again submitted a report to the Board regarding NOGRR245. |
| **Conclusion/Recommendation:** As more specifically described above, TAC recommends that the Board recommend approval of NPRRs 1224 and NOGRR245. |

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**

**BOARD OF DIRECTORS RESOLUTION**

WHEREAS, after due consideration of the alternatives, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to recommend approval of the following Nodal Protocol Revision Request (NPRR) and Nodal Operating Guide Revision Request (NOGRR) recommended for approval by TAC:

* NPRR1224, ECRS Manual Deployment Triggers – URGENT; and
* NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT.

THEREFORE, BE IT RESOLVED, that the Board hereby recommends approval of NPRR1224 and NOGRR245.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Jonathan M. Levine, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its June 18, 2024 meeting, the Board passed a motion approving the above Resolution by \_\_\_\_\_\_.

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_ day of June, 2024.

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Jonathan M. Levine

Assistant Corporate Secretary