Item 5: TAC Report regarding R&M Committee Charter Revision Requests Recommended for Board Approval

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2024 Technical Advisory Committee (TAC) Chair

Reliability and Markets Committee Meeting

ERCOT Public
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Committee Request

Why this is being presented today:

NPRR1224 was considered at the May 22, 2024 TAC Meeting.

NOGRR245 was considered at the May 22, May 31, and June 7, 2024 TAC meetings.

This is the resulting Technical Advisory Committee (TAC) recommendation on the following Revision Requests that were recommended by TAC for Board approval, for which the R&M Committee is expected to vote on a recommendation to the Board:

- NPRR1224, ECRS Manual Deployment Triggers – URGENT
  - Recommended for approval by TAC with 10 opposing votes
- NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT
  - Recommended for approval by TAC with 1 opposing vote

NPRR1224, ECRS Manual Deployment Triggers – URGENT

Revision Description (ERCOT)	This Nodal Protocol Revision Request (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.
Reason for Revision	Strategic Plan Objective 1 - Be an industry leader for grid reliability and resilience
Justification of Reason for Revision and Market Impacts	This NPRR proposes to include a trigger that will allow manually releasing ECRS capacity on SCED-dispatchable Resources when the power balance constraint is consistently violated and the MW amount of the power balance violation is at least 40 MW for ten consecutive minutes. When manually releasing SCED-dispatchable ECRS, ERCOT plans to preserve some SCED-dispatchable ECRS to ensure that ERCOT has sufficient capacity that can respond and help recover frequency within the parameters required by North American Electric Reliability Corporation (NERC) Reliability Standards. However, if the power balance constraint violation remains at or above 40 MW, ERCOT will continue to release ECRS in small blocks. Further, when ECRS capacity from SCED-dispatchable Resources is manually released, ERCOT will recall the manually released ECRS when the triggering condition has ended and the ERCOT System is operating with a steady-state frequency above 59.97 Hz.
ERCOT Impact / Effective Date	No impact / The first of the month following Public Utility Commission of Texas (PUCT) approval
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).
TAC Vote	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.

NPRR1224, ECRS Manual Deployment Triggers – URGENT

Explanation of Opposing TAC Votes	**Consumer/Residential, OPUC** – We agree with Lyondell Chemical's perspective on the IMM's comments, and also appreciate that the NPRR will lead to an earlier deployment of ECRS, which will allow the reserved capacity to meet the energy demands of ERCOT's consumers more efficiently. While an offer floor is inappropriate, if the ERCOT Board were to approve the NPRR with an offer floor, it should be in the range of $200 instead of $750. $200 is a little above the Non-Spin offer floor. **Consumer/CMC Steel** – We support the IMM's comments and believe that a price floor, particularly a price floor as high as $750/MWh, is inappropriate. The price floor merely maintains market inefficiencies that this NPRR was meant to address. As the IMM explained, while it may be in the economic interest of suppliers in the short term, artificially setting prices so high will undermine the credibility of the ERCOT market. **Consumer/Lyondell Chemical** – We voted against the current language in NPRR1224 because its high price floor will impose needlessly high costs on ERCOT consumers. We note that during the highest Load hours during summer peak, there is no need for ERCOT to procure so much ECRS, as the ERCOT market design already provides overwhelming incentives for the ERCOT bilateral commercial market to make all available resources ready for real-time dispatch. As NPRR1224 currently stands, the price floor of $750/MWh will interact with this artificial shortage of dispatchable Resources created by high levels of ECRS procurement during summer peak to burden ERCOT consumers with excessive costs. We support the IMM's comments and believe that a price floor, particularly a price floor as high as $750/MWh, is inappropriate. The price floor merely maintains market inefficiencies that this NPRR was meant to address. As the IMM explained, while it may be in the economic interest of suppliers in the short term, artificially setting prices so high will undermine the credibility of the ERCOT market. Notably, a price floor at $750 is not backed by any robust analysis. The Joint Commenters attempt to equate a 500 MW release of ECRS to a 500 MW shortage, which the IMM explained was improper because it's not clear how much of the ECRS will be dispatched. Without a more thorough analysis, implementing a $750/MWh price floor will only serve to maintain market inefficiencies at the expense of consumers. **Consumer/City of Eastland, City of Dallas** – The $750 price floor is excessive and undermines the purpose of NPRR1224—to reduce the $12 billion of ECRS related artificial shortage prices. As the IMM commented, a price floor retains significant levels of artificial shortage prices that exceed the floor. Moreover, there is insufficient analysis demonstrating the price floor, at such a high threshold, appropriately values ECRS. In sum, the price floor (1) reinforces market inefficiencies that NPRR1224 intends to address, and (2) lacks analytical support. Thus, NPRR1224—with the $750 price floor—imposes unnecessary and unsubstantiated cost on consumers.

NPRR1224, ECRS Manual Deployment Triggers – URGENT

Explanation of Opposing TAC Votes	**IREP/Reliant** – Reliant opposes the level of offer price floor at $750 and whether that high of a floor could offset the benefits of releasing portions of ECRS earlier for "undergen" conditions. Reliant has concerns with the excessive amount of Ancillary Service procurement given the overlap in objectives between ECRS and Non-Spin to address net Load variability. We understand the need to value reserves consistent with the reliability benefits provided to the ERCOT System but establishing price floor levels at this time pre-empts the process to perform a comprehensive review of the Ancillary Service methodology and procurement amounts at the PUCT. **IREP/Rhythm Ops** – Rhythm opposes for the same reasons as Reliant and would prefer no floor for the reasons above. That said, the discussions at TAC (particularly the graphs presented by the Joint Commenters) indicated that even if ECRS is being used to support conservative operations, a $500 floor was a more appropriate read of the data. **IREP/APG&E** – Explanation requested but not provided. **IREP/Demand Control 2** – Demand Control 2 agrees with the comments of Reliant and Rhythm Ops above.

NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT

Revision Description (ERCOT)	This Nodal Operating Guide Revision Request (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").
Reason for Revision	Strategic Plan Objective 1 - Be an industry leader for grid reliability and resilience
Justification of Reason for Revision and Market Impacts	This NOGRR was submitted based on reliability issues associated with the inability of some IBRs to ride-through system disturbances, and in light of the IEEE 2800-2022 standard. This NOGRR proposes ride-through requirements for IBRs and Type 1 and Type 2 WGRs with specificity consistent with or beyond the IEEE 2800-2022 standard where appropriate (e.g., applying to the Point of Interconnection Bus (POIB) instead of the "Resource Point of Applicability"). The revisions specify the ride-through requirements for IBRs rather than IRRs or Energy Storage Resources (ESRs) because some ESRs may not be IBRs and the IBR attributes create unique ride-through requirements. Additionally, due to Type 1 and 2 WGRs failing to ride through normal system disturbances, ERCOT proposes to apply several of the new requirements to these Resources. Some clarifications included from the IEEE 2800-2022 standard may not require additional "capability" but provide additional specificity for settings that can prevent failures rather than adjustments being made after a failure occurs.
ERCOT Impact / Effective Date	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)

NOGRR245, Inverter-Based Resource (IBR) Ride-Through Requirements – URGENT

ERCOT Opinion / Market Impact Statement	ERCOT supports approval of NOGRR245 / 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.
TAC Vote	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.
Explanation of Opposing TAC Votes	**IREP/Demand Control 2** – Demand Control 2 opposed NOGRR245 recommend for approval by TAC in the 6/7/24 TAC Report because: (1) TAC members were not provided adequate time to give the 6/6/24 Joint Commenters 2 comments full consideration since the comments were not available until late evening on 6/6/24, and the 40 percent cost threshold proposed by ERCOT is arbitrary, extremely high and does not take into account the plant life of generating units or existing offtake contracts (i.e., either the threshold should be much lower or some aspect of commercial reasonableness added).