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| NPRR Number | [1310](https://www.ercot.com/mktrules/issues/NPRR1310) | NPRR Title | Dispatchable Reliability Reserve Service Plus Energy Storage Resource Participation and Release Factor |
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| Date | | February 3, 2026 | |
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| Market Segment | | Not applicable | |

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| Comments |

The IMM appreciates the opportunity to comment on Nodal Protocol Revision Request (NPRR) 1310, which proposes an augmentation of the Dispatchable Reserve Reliability Service (DRRS) product proposed by NPRR1309, Board Priority - Dispatchable Reliability Reserve Service Ancillary Service, to include an hourly capacity product with the objective of supporting resource adequacy. Whereas we offered qualified support for DRRS as an operating reserve product as proposed by NPRR1309, we oppose the resource adequacy features proposed by NPRR1310, subsequently referred to as DRRS+, and recommend that it be rejected.

The structure of these comments is as follows: 1) fundamental features of DRRS+, 2) implications for reliability and market performance, and 3) next steps.

1. **Fundamental Features of DRRS+**

This section summarizes the fundamental features of DRRS+ that reflect the objective to promote resource adequacy but that have implications that undermine reliability and market performance.

1. **“Overlapping” DRRS Capacity**

A primary feature of DRRS+ is that a fraction of the volume of DRRS procured by ERCOT would be allowed to overlap with energy and other Ancillary Services, while the remainder is treated exclusively as an operating reserve. The rationale for enabling this capacity to overlap is so that the target volume of DRRS procurement can be set high enough to award DRRS to the entire available supply that is qualified to provide DRRS in Real-Time, thus resulting in a kind of hourly capacity payment for dispatchable resources.

The premise of this concept is that capacity can be purchased in the present to ensure resource adequacy for future system conditions. In practice, this hourly capacity market will necessarily impact commitment behavior and price formation, meaning that whatever revenue is injected into the market via DRRS capacity payments will be partially offset by decreased revenue for energy and operating reserves. The net effect of these offsetting revenue sources is unclear, and ERCOT has not presented analysis demonstrating that DRRS+ as proposed by NPRR1310 could cost-effectively promote resource adequacy.

ERCOT contracted Aurora Energy Research to evaluate the cost‑effectiveness of several market design concepts for achieving resource adequacy, including DRRS as a strict operating reserve, expanded shortage pricing, and DRRS+. However, Aurora’s implementation of DRRS+ bears little resemblance to the construct proposed in NPRR1310. In Aurora’s study, the capacity component is not cleared through a market process using a demand curve; instead, a revenue budget is determined based on prior‑year net CONE and then distributed across the hours of the year using a function tied to hourly net load, concentrating revenues into the highest net‑load hours. By contrast, NPRR1310 proposes procuring DRRS+ through the Day-Ahead Market (DAM) and Real-Time Market (RTM) and pricing it through an extended DRRS demand curve with a flat $10/MWh segment. These concepts are completely different, and ERCOT has yet to present any analysis on the net effect of NPRR1310 on system-wide revenue outcomes.

1. **Release Factor, Single DRRS Demand Curve and Clearing Price**

The volumes of DRRS meant to function as an operating reserve vs. as a capacity product (i.e., “overlapping” DRRS) are expected to be set independently. Despite the obvious differences in function and intent of the overlapping and exclusive portions of DRRS, they would be treated in the market optimization as a single product sharing the same demand curve and clearing price. To maintain the pretense that these are in fact one Ancillary Service product, ERCOT has introduced the “release factor” concept, which is defined as the percentage of the total volume of DRRS awards that are allowed to overlap with energy and other Ancillary Services. This concept is formulated as an hourly, Resource-level constraint. For the market to go short on DRRS, it must go short on both the overlapping and exclusive components of DRRS proportionally according to the release factor. This formulation will inhibit co-optimization of DRRS with energy and other Ancillary Services, resulting in inefficient awards and clearing prices which we describe in the following section.

1. **Implications for Reliability and Market Performance**
2. **NPRR1310 Incentivizes Inefficient Commitment Behavior**

Under the proposed framework, offline resources with start times longer than two hours are not eligible to be awarded DRRS unless they are On-Line. That eligibility cliff, combined with the prospect of sustained DRRS revenues in hours when DRRS is being used as a resource adequacy tool, creates a predictable incentive: Resources that would otherwise remain Off-Line may choose to commit and run at Low Sustained Limit (LSL) to become eligible to carry DRRS on their On-Line headroom. In a construct designed to clear large volumes at a flat price for extended periods, even a relatively modest DRRS price can materially change commitment incentives, thus encouraging superfluous On-Line operation that is not driven by energy economics or reliability need.

1. **When DRRS Goes Short, it Goes Short on Both its OR and RA Components**

The formulation of the release factor means that shortages occur proportionally across the exclusive (operating reserve) and overlapping (capacity) components. For example, consider an RF of 98% and a total DRRS requirement of 100,000 MW. Of that, 2,000 MW represents true operating reserves, and 98,000 MW represents overlapping DRRS. Under this structure, DRRS will clear above $10/MWh only if the market is short more than 98,000 MW of overlapping DRRS. But a shortage of that magnitude necessarily wipes out almost the entire 2,000 MW operating reserve portion as well. In such a scenario, the market would be short 1,960 MW of operating reserves while still pricing DRRS at only $10/MWh.

1. **Excessive RA Procurement Results in Operating Reserve Shortages**

ERCOT has indicated that the DRRS procurement targets will be set such that the price clears according to the DRRS demand curve consistently throughout the year. To achieve that goal, the procurement target will always have to be set higher than the available supply of DRRS-qualified capacity. When the DRRS procurement target is higher than available eligible supply, the market will necessarily go short on DRRS, and that shortage will be shared across both the RA portion and the operating‑reserve portion. In practical terms, an attempt to tune procurement to ensure DRRS clears along the flat $10/MWh segment will inadvertently reduce the amount of exclusive operating reserves the market can procure, compromising the reliability purpose DRRS is supposed to serve.

Assuming the same 98% release factor as before, consider an interval in which the available supply of DRRS-eligible capacity is 40,000 MW. If the DRRS target is set at 50,000 MW, (i.e., 1,000 MW of operating reserve, 49,000 MW of capacity) the market necessarily goes short of at least 20% of the DRRS plan, and this volume is taken proportionately from both the operating reserve and resource adequacy portions of DRRS. That means the market will procure at most 800 MW of DRRS as an operating reserve[[1]](#footnote-1). Consider instead if, given the same supply, the procurement target is set at 60,000 MW. In that case, the market necessarily goes short 33% of the DRRS plan, and the total volume of DRRS operating reserve that the market will procure is no more than 666 MW. ERCOT has not provided analysis demonstrating how it would calibrate procurement targets to avoid this outcome under a range of supply conditions.

1. **DRRS Shortages Are More Expensive than Higher-Value AS in Many Conditions**

Assuming the same 98% release factor, the market must go short of 49 MW of overlapping DRRS to go short of 1 MW of exclusive DRRS, amounting to an effective penalty price of $500 for the first MW of exclusive DRRS shortage, significantly higher than the price associated with the first MW of shortage for any of the other Ancillary Services despite being a lower-quality reserve. Thus, it is likely that this formulation will result in SCED preserving DRRS capacity at the expense of other more valuable reserves while still only clearing DRRS at $10. Neither of these outcomes is desirable for either operational reliability or efficient market performance.

1. **Additional Next Steps**
2. **Demonstrate how NPRR1310 Supports Resource Adequacy**

To meaningfully evaluate this proposal, ERCOT should produce a quantitative analysis showing how DRRS+ as proposed by NPRR 1310 would impact net revenue and translate into improved resource adequacy outcomes. This involves explaining how ERCOT intends to set procurement targets in a way that avoids unintentionally reducing the volume of true operating reserves. This should include a transparent methodology for determining procurement targets, an explanation of how varying supply conditions would be handled, and an assessment of how the proposed structure preserves reliability rather than compromising it when DRRS goes short.

1. **Create a Path for ESR Participation**

We support the provision in NPRR1310 allowing Energy Storage Resources (ESRs) to participate in DRRS. However, this beneficial change should not be bound to an otherwise problematic RA construct. We therefore propose three possible paths forward: (1) incorporate ESR participation directly into NPRR1309; (2) modify NPRR1310 by removing all resource‑adequacy elements and retaining only the ESR participation language; or (3) reject NPRR 1310 in its entirety and bring forward a clean, narrowly focused NPRR that solely enables ESRs to provide DRRS.

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| Revised Cover Page Language |

None.

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| Revised Proposed Protocol Language |

None.

1. Note that offline DRRS awards are not constrained by the release factor, which complicates this accounting without refuting our point that DRRS shortages are taken proportionally from both operating reserves and overlapping DRRS. [↑](#footnote-ref-1)