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| NPRR Number | [1278](https://www.ercot.com/mktrules/issues/NPRR1278) | NPRR Title | Advanced Grid Support Services |
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| Date | May 13, 2025 |
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| Submitter’s Information |
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| Cell Number | 603-481-6390 |
| Market Segment | Not applicable |

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| Comments |

The proposal targets transient instability mitigation in the grid forming space through an auction to provide mitigating services. We generally appreciate taking a market approach to resolving reliability issues and expanding the base of Resources that could be eligible to provide the service beyond Energy Storage Resources (ESRs). However, we do not support the Advanced Grid Support Service (AGSS) as an Ancillary Service proposed in Nodal Protocol Revision Request (NPRR) 1278.

We take this position primarily because there is not sufficient indication that ERCOT has identified a need for this service. Beyond that, based on ERCOT analysis this has not been an issue to date and increasing need in the near to midterm is not supported by analysis. To date, Generic Transmission Constraints (GTCs) have been implemented as a measure to mitigate potential transient instability issues arising from Inverter-Based Resources (IBRs). A measure of success for AGSS would be a lesser need for GTCs. This would be better understood via further analysis that would guide the reliability impact of AGSS, the appropriate procurement quantity, and potentially any shortage pricing mechanism through analysis of marginal reliability value.

Further, appropriate pricing and potential market power issues should be further explored. At this point there is not sufficient analysis to indicate how to reasonably value the service from either a competitive offer perspective or a marginal reliability perspective. In addition, the concentration of supply capable of providing AGSS needs to be evaluated for potential market power issues, with a mitigation framework applied if applicable. The IBR supply is controlled by a smaller number of Decision Making Entities (DMEs) compared to the broader supply of energy and Ancillary Services system-wide. An accurate analysis of market power would require a target procurement quantity of AGSS in addition to supply attributes.

Finally, there is an aspect of causation that confounds the application of a market to resolve the potential reliability issue. The source of the transient instability issue is IBR-based due to the interaction IBRs have with the grid. Prior to the introduction of IBRs to power grids, conventional Resources operated as synchronous generators making it easier for the grid to reclaim pre-disturbance frequency. The asynchronous nature of IBR operations can impact power flow patterns and change angle and speed of the power system. With increased penetration, this makes it more difficult for ERCOT to mitigate transient concerns and reliably operate the grid. GTCs were implemented to increase ERCOT’s situational awareness of the limits specific transfers can operate at and reduce the potential risk IBRs pose to transient stability when a contingency occurs. The GTCs allow ERCOT to maintain reliability via transient stability in the event of a contingency. It is not clear that it is appropriate to develop a service and pay the group of resources to resolve the reliability issue that they cause. To the extent IBRs are the source of transient stability concerns, it is more appropriate to require IBRs (existing and new) to mitigate their contribution to transient instability.

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| Revised Cover Page Language |

None

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| Revised Proposed Guide Language |

None