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| NPRR Number | [1096](https://www.ercot.com/mktrules/issues/NPRR1096) | NPRR Title | Require Sustained Six Hour Capability for ECRS and Non-Spin |
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| Date | | February 1, 2022 | |
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| Submitter’s Information | | | |
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| Market Segment | | Not applicable | |

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| Comments |

ERCOT appreciates the stakeholder discussion on Nodal Protocol Revision Request (NPRR) 1096. ERCOT respectfully disagrees with Reliability and Operations Subcommittee’s (ROS’s) endorsement of a two-hour duration for Non-Spinning Reserve (Non-Spin) in NPRR1096. ERCOT believes that a four-hour duration requirement for Non-Spin is needed at this time.

Non-Spin is an Ancillary Service that can be expected to be utilized to cover risks associated with net load forecast errors. Non-Spin plays the role of replacement reserve and may be deployed to restore Regulation Service and Responsive Reserve (RRS). Non-Spin may also be used to cover risks associated with thermal Resource intra-day Forced Outages, which may also last several consecutive hours. Depending upon the operating conditions and available Resources, Non-Spin deployments may be needed to cover supply shortfalls until additional Off-Line generation can be brought On-Line.

In looking at historic data, 97% of historic sustained net load under forecast errors with 4,000 MW or more magnitude have lasted four hours or less, and all of the sustained net load under forecast errors with 4,500 MW or more magnitude have lasted four hours or less. Comparatively, 81% of historic sustained net load under forecast errors with 4,000 MW or more magnitude have lasted two hours or less and 89% of the sustained net load under forecast errors with 4,500 MW or more magnitude have lasted two hours or less. A two-hour duration for Non-Spin may not be sufficient to cover approximately 1-in-5 of the 4,000 MW net load under forecast error events and 1-in-10 of the 4,500 MW net load under forecast events. Additionally, ERCOT expects that as more wind and solar Resources are added to the grid net load forecast errors will increase.

When Resources are forced out, Non-Spin is needed until other Resources can be brought online to replace the lost capacity. Given ERCOT’s current generation fleet, during tighter operating conditions, a two-hour lead time to bring additional Resources online leaves operators with only a small amount of possible capacity; increasing the lead-time to four hours in those situations, increases the capacity potentially available to operators

The Day-Ahead Market (DAM) tools and processes do not currently account for state-of-charge of limited-duration Resources and may award a limited-duration Resource Ancillary Services for several consecutive hours well beyond its capability. Relying on Market Participants to self-regulate this presents ERCOT with an unacceptable risk. A duration limit on the capacity used to provide Non-Spin is necessary until changes to ERCOT tools can be implemented. Some examples of changes that may lead to reassessment of the duration limit include but are not limited to accounting for state-of-charge in DAM and Reliability Unit Commitment (RUC), improving Real-Time monitoring of reserves to account for state-of-charge, etc.

Given the multi-hour reliability needs that Non-Spin may be needed to address and the current set of tools that ERCOT has to manage unit commitment and Ancillary Services, ERCOT respectfully requests that stakeholders approve NPRR1096 as amended by the 11/3/21 ERCOT comments which includes a two-hour duration requirement for ECRS and a four-hour duration requirement for Non-Spin. Please note the proposed Non-Spin duration in the 11/3/21 ERCOT comments was revised based on stakeholder feedback and additional analysis that ERCOT conducted. ERCOT commits to continue working with stakeholders to develop a longer-term solution on this issue.

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| Revised Cover Page Language |

None at this time.

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| Revised Proposed Protocol Language |

None at this time.