

Overview of Synchronized Reserves Proposed Changes

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- As of May 4th EPFSTF meeting discussion
- Proposal Highlights
 1. Consolidation of Tier 1 and Tier 2 Reserves
 2. Using energy offer parameters for SR Market
 3. Better modeling of resources with operational limitations

1. Consolidation of Tier 1 and Tier 2 Reserves

- Only resources that can reliably provide reserves will be considered eligible to clear in the SR Market
 - Resources such as nuclear, wind, solar, and energy storage are not eligible, but can request an exception to be included if they can demonstrate their ability to provide the service
- Unloaded capacity (previously Tier 1) will be treated similar to a Tier 2 product
- All reserves will incur an obligation to perform and be compensated for MW assigned at the SRMCP
- The Must Offer requirement will remain unchanged
- All reserves will be subject to non-compliance penalties

2. Using energy offer parameters

- Spin max must be \leq economic max
 - Exceptions must be submitted to allow spin max $<$ ecomax
 - The exception process can be viewed [here](#)
- Spin Ramp Rate will no longer be used
- By default, a resource’s submitted energy offer will be used to determine its SR Market offer

Availability	Capability (Offer MW)	Price (Offer Price)
<p>In general, if a resource is a capacity resource that is online, scheduled by PJM, and available to provide energy, it will be considered available to provide reserves.</p> <p>Resources below may submit a change in their reserve availability (exceptions):</p> <ul style="list-style-type: none"> • Hydro units • Self-Scheduled for energy • Condensers (offline or in condensing mode) • Demand Resources • Non-capacity resources 	<p>The 10-minute capability (offer MW) will be automatically calculated for resources that are available for synchronized reserves based on the segmented energy ramp rate, limited by the economic max (or spin max if applicable).</p> <p>Resources below may submit a MW value different than what PJM calculates (exceptions):</p> <ul style="list-style-type: none"> • Hydro units • Self-Scheduled for energy • Condensers (offline or in condensing mode) • Demand Resources • Non-capacity resources 	<p>An offer price will be allowed to be submitted for all resources, up to a pre-determined margin (the cap for this component is currently \$7.50).</p> <p>The VOM costs will no longer be a component of the offer price</p> <p>Any condenser-specific costs may be included in the offer price (status quo)</p> <p>The LOC considered in the clearing and pricing will be calculated by PJM based on the submitted energy offer price</p>

Some resources find it difficult to accurately reflect the operational limitations of their units in the SR Market

- Currently, spin max is an hourly value
 - Proposal: Allow spin max updates intra-hour, similar to energy MW limits
- Currently, ramp rate is a daily value
 - Proposal: Allow intra-day ramp rate changes

Open Item: are there rules we can implement to help prevent the misuse of intra-day ramp rate changes?

- Add language to tariff stating that Market Participants must submit ramp rates that reflect the physical capability of resources?