

Synchronized Reserve Parameters

Tier 1 Compensation (MIC)

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- Tier 1 MW estimate uses
 - Synchronized Reserve Ramp Rate (Spin Ramp Rate), else
 - Energy Ramp Rate, else
 - Default Ramp Rate
- Tier 2 clearing uses
 - Energy Ramp Rate, else
 - Default Ramp Rate

- Section 4.2.1 of Manual 11



- Tier 2 offer quantities submitted for a capacity resource on the Synchronized Reserve Offer page in eMKT are automatically carried over from one day to the next unless updated. Changes made on the Synchronized Reserve Updates page of eMKT are not carried over into the next day.
- The following information must be supplied through the eMKT System:
 - Synchronized Reserve ramp rate for Tier 1 resources (MW/minute). A separate ramp rate may be submitted for multiple segments of a resource's MW range, and these ramp rates must be greater than or equal to the real-time economic ramp rate(s) submitted for the resource. Synchronized Reserve ramp rates that exceed economic ramp rates must be justified via submission of actual data from past Synchronized Reserve Events to the PJM Performance Compliance Department.
 - Resource's energy ramp rate is used for Tier 2 MW calculation.

- Tier 1 MW estimate uses
 - Synchronized Reserve Maximum (SpinMax), else
 - Economic Maximum (EcoMax)
- Tier 2 clearing uses
 - Economic Maximum (EcoMax)
 - ❖ Tier2 LOC captures the revenue forgone in the RT energy market for being held down uneconomically to create room for Tier2 MW

- Section 4.2.1 of Manual 11



Manual 11: Energy & Ancillary Services Market Operations
Section 4: Overview of the PJM Synchronized Reserve Market

- **Synchronized Reserve maximum for Tier 1 resources:** This value represents the maximum MW output a resource can achieve in response to a Synchronized Reserve Event. Synchronized Reserve maximum for Tier 1 resources must be greater than or equal to the economic maximum for the resource except for qualified resources that have been granted exception due to their physical limitation. Additional information on the communication process for consideration of resource physical limitation can be found on the PJM website at this location: <http://www.pjm.com/markets-and-operations/ancillary-services.aspx>.

Daily Tier 2 Offer

- A resource may offer or not offer for Tier 2 on a daily basis by setting Offer MW to a non-zero or zero MW respectively;
- Price is locked by 1800 a day before operating day

Intra-day Tier 2 Offer

- A resource may be available or not available for Tier 2 intra-day
- Intra-day Tier 2 available status is locked one hour before beginning of the operating hour

- A new column to allow daily opt in/out for Tier 1 obligation and compensation
- Default Tier 1 Status will be 'Available'
- Daily status must be submitted by 1800 day before operating day

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Synchronized Reserve Offers Search

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Synchronized Reserve Offers Results for ALL LOCATIONS on 04/01/2015

Location	Offer MW	Offer Price	Cond. Energy Use	Cond. Startup Cost	Cond. To Gen. Cost	Full Heat Rate	Reduced Heat Rate	VOM Rate	Spin as Cond.	Cond. Available Status	Tier 1 Status
SRR A	0.0	7.50	0.0	(null)	(null)	(null)	(null)	(null)	No	Not Available	Not Available
SRR B	20.0	7.50	0.0	(null)	(null)	(null)	(null)	(null)	No	Not Available	Available

- A new column to allow intra-day opt in/out for Tier 1 obligation and compensation
- By default, 'Tier 1 Status' will be 'Null', meaning daily value prevails unless overridden
- Hourly overrides to daily status can be submitted up to one hour before beginning of the operating hour

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Synchronized Reserve Updates

Portfolio: Sync Reserve Resources Unit: SRR A Date: 04/01/2015
(mm/dd/yyyy) Change Date Get Report Get CSV Report

Hourly Values **Apply To:** 08-23 Apply Use Defaults

Defaults 20 610

Offer MW 20 Spin Max 610 Available Available Self Sched. MW 0.0

Synchronized Reserve Update Results for SRR A (12345678) on 04/01/2015
Submit

Hour Ending	Offer MW	Spin Max	Tier 2 Available Status	Self Scheduled MW	Tier 1 Status
01	(null)	(null)	Available	(null)	(null)
02	(null)	(null)	Available	(null)	Available
03	(null)	(null)	Available	(null)	Not Available

