

Tier 1 Compensation Proposals

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Tier 1 synch reserves are credited at the synch reserve market clearing price (SRMCP) when the non-synch reserve market clearing price (NSRMCP) is above \$0.

- Is it appropriate to compensate Tier 1 aside from when it responds to a synch reserve event?
 - If so, how should it be compensated?

- Should Tier 1 MW be compensated outside of response to an event? If so:
 - At what price should they be credited?
 - Should Tier 1 resources incur an obligation as a result of receiving compensation outside of event response? If so:
 - How is the obligation calculated?
 - What does the compensation refund look like if they do not perform when called?
- Should any changes be made to the amount of Tier 1 MW estimated on a unit?

- Continue to compensate Tier 1 MW at SRMCP when NSRMCP > \$0
 - Additionally, make units whole to cost to respond to a spin event
 - Make whole only applies to resources scheduled for energy by PJM and resources self-scheduled for energy and dispatched above min
- Create an obligation to perform to the Tier 1 estimate
 - Resources may opt out of receiving an obligation to perform if they feel uncomfortable with receiving an obligation based on the Tier 1 estimate
 - However, units that opt out of a Tier 1 obligation forgo credit outside of event response
 - Resources that opt out will still have their Tier 1 estimate MW used when clearing the Synch Reserve Market so opting out can not be used as a method of withholding MW from the market

- Tier 1 MW compensated during an event

- Status quo for units that respond and
 - a) had no Tier 1 estimate OR
 - b) had a Tier 1 estimate but chose not to accept an obligation to respond

Status quo = Lesser of T1 Actual Estimate and T1 response (up to 110% of Tier 1 Actual Estimate) for units with a T1 estimate

- Change: Units with Tier 1 estimate that accept an obligation to perform will be credited for their Tier 1 estimate MW
 - Akin to Tier 2 resources being compensated for Tier 2 assignment during an event
 - However, unit must refund the compensation received for any MW that were not provided during an event

- Refund calculation will be the same as that used for Tier 2 compensation refunds
 - “Day Of Refund” applies to all hours with an assignment in the current day
 - “Retroactive Refund” applies to all assigned hours going back the lesser of 14 days or the # of days since last shortfall
- Update the shared refund logic for both Tier 1 and Tier 2 shortfalls such that:
 - The refund applies to any hours with either a Tier 1 obligation or Tier 2 assignment
 - Both Tier 1 and Tier 2 over response can be netted against both Tier 1 and Tier 2 shortfalls within the same account

- Tier 1 MW compensated outside of an event when NSRMCP > \$0
 - Tier 1 obligation MW, which is the Tier 1 estimate for those units that accept an obligation to respond during an event
 - Units that opt out of a Tier 1 obligation receive no credit for their Tier 1 estimate
- Tier 1 estimate calculation remains the lesser of:
 - MW difference between economic base point and Eco Max or Spin Max
 - Ramp rate adjusted by Degree of Generation Performance * 10 minutes
- Make change to allow Spin Max to be updated intra-hour so that unit's operating parameters can be more accurately modeled and Tier 1 MW can be more accurately estimated
- No longer estimate Tier 1 MW on resources that are self-scheduled for energy and dispatched at min



Potential Tier 1 Credit Reduction from Opt Out – 2014 calendar year

No.	Original Tier 1 Credit	Tier 1 MW Opt-Out	New Credit with Opt-Out %	Reduction from Opt Out
1	\$26,976,902	0%	\$26,976,902	\$0
2		25%	\$20,232,677	\$6,744,225
3		50%	\$13,488,451	\$13,488,451
4		75%	\$6,744,226	\$20,232,676

- Do not compensate Tier 1 MW outside of response to a synch reserve event
 - Tier 1 credits essentially revert to the calculation in place prior to the shortage pricing implementation
- No longer estimate Tier 1 MW on self-scheduled units that are dispatched at economic minimum
 - In agreement with this portion of the PJM package

- Compensate Tier 1 MW at NSRMCP when NSRMCP > \$0
 - Changes clearing price paid to Tier 1 resources

- Do not impose an obligation on Tier 1 resources to respond during a synch reserve event
 - Status quo

2014 Tier 1 Credit Impact

Credits paid at SRMCP	Credits under ICC proposal if paid at NSRMCP	Difference	Difference %
\$26,976,902	\$14,475,254	-\$12,501,648	-46%

	PJM	MA	ICC
Price credited to Tier 1 resources outside of an event	SRMCP when NSRMCP > \$0	\$0	NSRMCP when NSRMCP > \$0
Tier 1 MW calculation	Status quo, but discontinue estimation of Tier 1 MW on resources self-scheduled and dispatched at min	Same as PJM	Status quo
Obligation to respond	Y	N	N
Refund owed for non-performance	Y	N	N
Parameter Changes	Allow Spin Max to be updated intra-hour	N/A	N/A

	July	August	September	October
MIC	Vote	<i>Review manual & tariff changes</i>	<i>Approve manual & tariff changes</i>	
MRC		First Read	Vote	
MC				Vote