Q&A from August 6, 2018 EPFSTF

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EPFSTF

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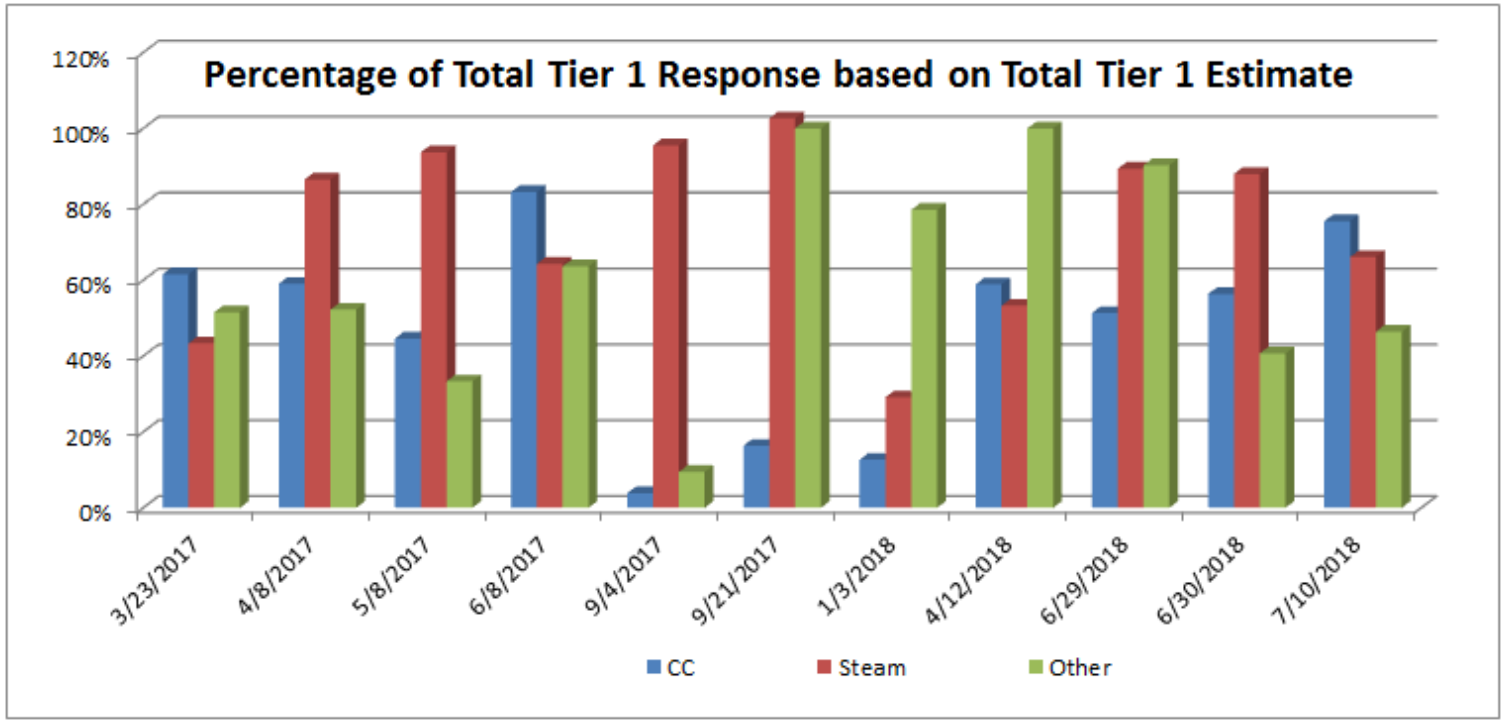
Synch Reserve Consolidation: Tier 1 Response

- A more in-depth look at Tier 1 response during spinning events was requested. Are there trends in response rate by unit class?

Tier 1 Estimates



Tier 1 Response over Tier 1 Estimate (%)			
Date	CC	Steam	Other
3/23/2017	62%	43%	52%
4/8/2017	59%	87%	52%
5/8/2017	45%	94%	33%
6/8/2017	83%	64%	64%
9/4/2017	4%	96%	9%
9/21/2017	16%	103%	100%
1/3/2018	13%	29%	79%
4/12/2018	59%	53%	100%
6/29/2018	51%	89%	90%
6/30/2018	56%	88%	41%
7/10/2018	76%	66%	46%

- Response evenly distributed between steam and CC
- Total Tier 1 response MW as a percentage of Tier 1 estimate by resource type
- Spinning events >= 10 minutes since January 2017
- Other units made up of CT, Hydro, and NUG

How are SR charges currently allocated between MAD and non-MAD (rest of RTO)?

- Credits are allocated as charges using the market participant's obligation ratio share (total credits * (participant obligation / total obligation))
  - Obligation ratio share is the load ratio share, adjusted by bilateral transactions and offset by Tier 1 estimates
- If the clearing price for MAD and RTO are equal, the credits are allocated as one bucket to all load in the RTO
  - The participant's obligation ratio share in the RTO is used to determine their allocation of total RTO credits
- If the clearing price for MAD and RTO separate, the credits awarded in MAD and non-MAD are allocated separately to load in MAD and non-MAD, respectively
  - The participant's obligation ratio share in MAD and non-MAD are calculated separately and used to determine their allocation credits in each sub-zone

Flexible Reserve Zone Modeling: Transmission Zones that Span Sub-zones

How are SR charges allocated to load that is in transmission zones that span reserve sub-zones (MAD and non-MAD)?

- PJM identifies the sub-zone in which each load bus in the transmission zone resides
- PJM calculates the percentage of zonal load residing in each sub-zone using the state estimator load at each bus
- PJM allocates the participant's zonal load to each sub-zone using this percentage. This is then used to calculate the obligation ratio share in the sub-zone.
- PJM proposes using this same process for any load that may span a new sub-zone that could be created under the flexible reserve zone modeling proposal

ORDC:
Annual Recalculation Process

As part of the annual recalculation of the downward sloping segment of the ORDC, would it make sense to review the results in a manner similar to what is done for the load forecast at the Load Analysis Subcommittee?

- Overview of the Load Analysis Subcommittee process
- Discussion of ORDC data to be reviewed

ORDC:
Annual Recalculation Process

Are extreme outliers in the forecast error included or excluded when calculating the downward sloping segment of the ORDC? How they will be handled going forward?

- Bad data was excluded from the distributions used to calculate the downward sloping segment of the curve.
- Valid outliers were included in the distributions.
- PJM proposes to do the same in the annual recalculation.

ORDC:
Seasonal and Time of Day Variation

Why were the season and time of day blocks chosen as proposed part of the PJM proposal?

Winter (Dec – Feb)
Spring (Mar – May)
Summer (Jun – Aug)
Fall (Sep - Nov)

Block 1 (2300 – 0200)
Block 2 (0300 – 0600)
Block 3 (0700 – 1000)
Block 4 (1100 – 1400)
Block 5 (1500 – 1800)
Block 6 (1900 – 2200)