PRD Proposal

Discussion of Differences from PJM Proposal

Adjustment Factors

Account for differences between forecast and actual loads

- RPM purchases are based on Zonal Peak Load Forecasts.

- PJM costs are allocated based on actual peak loads in the prior year.

- This creates a discrepancy between quantity of MW purchased and actual load. For example, for 2017/18, the final PJM load forecast was 152,999MW, but the summer 2016 Weather Normalized Peak Load was 150.085MW. This means that, on average, every MW of 2016 load pays for 1.02MW of RPM forecast load.

- Adjustment factors for this are applied throughout RPM, and are part of the current PRD rules.

- Capacity Performance did not change the use of these adjustment factors.

- Whisker's proposal retains adjustment factors for summer and extends to cover winter months.

Aggregation

- Under both PJM and Whisker's proposal, much PRD will be a seasonal resource.

- PJM has invested considerable effort in developing aggregation rules, and has presented them as the solution to accommodating seasonal resources in Capacity Performance.

- We propose to grant PRD the same treatment as any other seasonal resource.

- Although implementation details are not a part of our proposal, we suggest that this can be straightforwardly done:

  - Pair PRD resources with opposite-season capacity resources in the existing way.

  - Once paired, allocate MW to the demand side and supply side resources proportionate to the number of days in each period. Example:

    - 10MW summer PRD at $100/MW-day, summer delivery period is 183 days

    - 10MW winter capacity resource at $80/MW-day, winter delivery period is 182 days.

    - Paired resource:

      - Offer Price = ($100 * 183 + $80 * 182) / 365 = $90.03/MW-day

      - VRR Curve Adjustment = 10MW * 183/365 = -5.01MW

      - Supply Resource = 10MW * 182/365 = 4.99MW

Other Differences

Deep in the weeds

- **Adjusted Winter Peak Load:** PRD is defined as the difference between load and what the load would have been if it was not price responsive. Our proposal adjusts Winter Peak Load to add-back any price responsive curtailments that occurred on Winter Peak days.
  - Based on the PRD energy curve, consistent with both proposals for capacity add backs.
  - Without this adjustment, PRD on winter peak days will be paid for twice during an emergency event: It will be added back to the customer's PLC and also subtracted from PRD compliance.
  - Unlikely to be significant in practice.
- **Winter Peak Load Forecast:** Adjustment factors (slide 1) usually use the last load forecast prior to the third IA, on the basis that the 3rd IA sets final capacity allocations. However, we propose to use the greater of the BRA and final load forecast for determining winter adjustment factors. Our reasoning for this is:
  - *If forecasts decrease*, PRD obligations are not reduced, and PRD providers have no opportunity to purchase replacement capacity. So, lowering PRD baselines because of lowered load forecasts would reduce PRD supplier's ability to comply with no recourse.
  - *If forecasts increase*, PJM purchases more load on behalf of each LSE, meaning that load reductions from the new capacity level provide system relief.

Other Differences, continued

Even deeper

- **Service Level Adjustment Factor:** For determining event compliance, current PRD rules adjust the MESL up if zonal loads are higher than forecast peaks. Our proposal retains this adjustment and extends it to winter months based on the winter forecast peak.

  - Adjustment is explained as being "to account for the fact that actual load can be greater than the PJM 50/50 load forecast during an emergency event" (M18, p48)

  - We are aware of nothing that Capacity Performance changed that affects this, and are unclear why removing this adjustment is in scope for this group.

  - Note that PRD values were calculated relative to PLC both before and after CP, so the reasoning that justified removeing the DR Factor do not apply here.