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PJM Summer Only DR Senior Task Force:

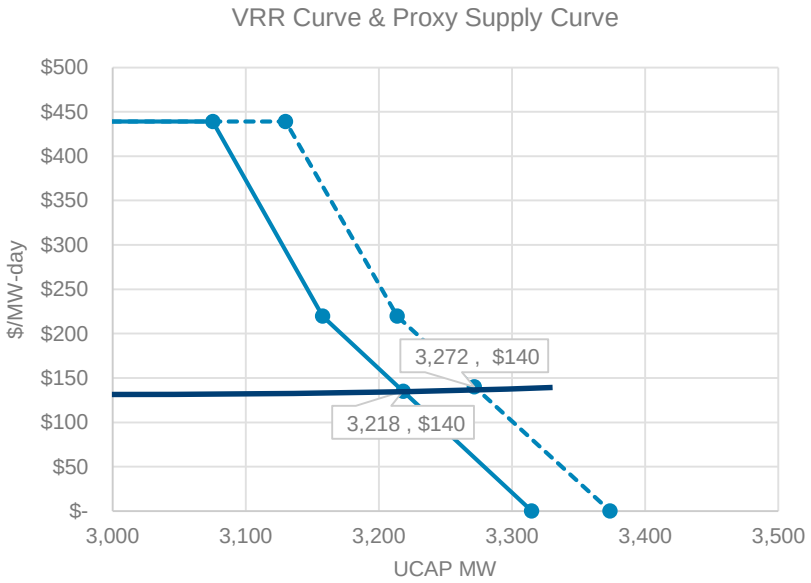
Proposal D

August 29, 2018

Dual Eligibility is Integral to Cost Reduction Goal

- Proposal A (PJM) and Proposal D are virtually the same, albeit on one essential item: Eligibility (Design Component 2m).
- This pivotal issue is the difference between a solution that saves load money (the goal of a peak shaving program) and a solution that costs load more than the status quo.
- Forcing a customer to choose between peak shaving and emergency demand response, in states that have dual participation now, will likely REDUCE the total MWs from the status quo, thereby RAISING costs to all customers.

Background Example: State Peak Shaving Programs



- 50 MW of LFA-qualified retail peak-shaving program (Act 129)
- Pre-LFA capacity costs to MetEd LSEs = 3,272 MW x $140/MW-day x 365 days = **$167.2 MM**
- Post-LFA capacity costs cost to MetEd LSEs = 3,218 MW x $140/MW-day x 365 days = **$164.4 MM**
- Savings = **$2.8 MM**
- PPUC decides to “keep” X% as savings for all MetEd ratepayers; allocate (1-X)% of savings as direct compensation to program participants via non-bypassable retail charge to all MetEd ratepayers
- <u>Assumptions:</u>
  - 1:1 ratio of Act 129 MW:Peak Load Forecast MW
  - PJM has perfect load forecast at time of BRA
  - No IA activity
  - $0.10/MW supply curve sensitivity

Case in Point

- Same **50 MW** of LFA-qualified retail peak-shaving program in MetEd EDC zone (We call this “LFA Gross”)

- Act 129 program has a cap on # of peak-shaving hours and only targets day-ahead load forecast in excess of 96% of RTO summer peak forecast (correlates roughly to 85 THI trigger)
  - PJM will not see sufficient peak-shaving in all peak hours across 20-year backcast to warrant 1:1 impact
  - Only ~**10 MW** reduction to MetEd peak load forecast (We call this “LFA Net”)

- Wholesale savings from reduced VRR curve are cut roughly by 80% → $2.8 MM down to $0.6 MM

- Under PJM’s proposal, those 50 MW of DR customers would be categorically prevented from registering in ELRP (either as standalone CP resources or as part of a seasonal aggregation), despite PJM only “recognizing” 20% of their capabilities

Dual Participation is the Key Design Element

- How do you overcome a net loss of (1) direct payments to DR customers plus (2) indirect savings to ratepayers with institution of an LFA construct that includes prohibition on dual-enrollment? (*hint: trick question*)
  - Use lower THI trigger → more frequent dispatches → less customer adoption/penetration → fewer savings to use as direct payments to program participants → **no net benefit to load**
  - States earmark higher % of savings as direct payments to program participants → ratepayers see less benefit → becomes "transfer of wealth" (essentially worse version of status quo) → **no net benefit to load**

- Any construct that results in X MW currently able to participate on the supply side (as year-round CP or seasonally-aggregated CP) and translates that in its entirety to <X MW on the demand side can **NEVER** result in a net benefit to load—it's basic math

- The only way LFA can result in a net benefit to load (vs. a net loss, or at best, a zero-sum outcome) is to allow "residual" program MW *not recognized* as peak load reductions to participate in RPM auctions as supply-side capacity resources → an "LFA Residual" construct supports this outcome

Implementation of Dual Participation

- Nomination
  - Customer dictates which load is seasonal and which is annual.
- Planning
  - PJM Planning updates historic load as it does under Proposal A.
- Event Compliance
  - Event compliance measured with CBL for LFA; PLC for CP portion.
  - In occasion of simultaneous events, performance cascades with LFA first and CP second.
    - This ensures that a customer dual enrolled is incentivized to meet all requirements.

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