

Load Management Testing Topics from MRC

Demand Response Subcommittee October 2, 2019



PJM 1a Proposal

- Main motion for endorsement at MRC
- Consider other changes if they will lead to more support (friendly amendment)

PJM Number of Days needed to collect load data to make decision on whether or not performance was greater than 75% to request retest

- Proposed: By end of month after month tested
 - Translates into 30 to 60 days depending on test date
 - Allows for 10 months of testing
 - Could be tight timeframe for late in month test days
- Possible alternative: Fixed number of days
 - 45 days
 - Can maintain 10 months of testing
 - Accommodates data gathering for test days late in the month
 - Vast majority of utility data available within 30 days

This is time period for CSP to evaluate performance, NOT time period to submit settlements



- Proposed 3 tier notification: Month ahead, Day before, Event day
 - There is general agreement that Day before and Event day tiers are needed but there may be other options for month ahead
 - Month ahead designed to help with planned maintenance
- Possible Alternative:
 - Replace month ahead with Friday before a 2 week test period
 - Example, announce on Friday September 6, 2019 that Zone X and Y will be tested between 9/9 (Monday) and 9/20 (following Friday).



Economic DR market performance as a substitute for a test

- General principals/assumptions:
 - Use nominated capacity on registration as target and associated capacity compliance methodology
 - FSL/GLD
 - Capacity commitment allocated to registration
 - No performance aggregation across registrations
 - Avoid retroactive application of results (ie: economic activity as the test)
 - Market participation should be similar situation as a test
 - Avoid introducing same issues we are trying to resolve
 - Economic DR registration must be comprised of same location(s) as on Load Management registration



Economic DR Synchronized Reserve market performance

as a substitute for a test

• Pros

- emergency type of product
 - offer and clear but do not know when resource will be dispatched until needed by system
 - CSP can not simply schedule when convenient
- Fast response time relative to Load Management
- Challenges
 - Short duration
 - Most events less than 20 minutes
 - 11 minute event means 10 minute lead time and 1 minute to perform during event (instead of 2 hours required for test).
 - How to handle multiple events?
 - First, last, average, min, max or CSP choice
 - Timing of SR event vs LM Test.

Typically 75 MWs participate as SR resource (Load Management ~ 8,000 MW)



Economic DR Energy market performance as a substitute for a test

- Economic energy challenges
 - CSP can effectively schedule to be dispatched when convenient (or when load is down) for each registration
 - This exacerbates identified issues with existing test protocol
 - Reduces "event like" simultaneous testing
 - DA energy market provides advanced notice of exact hours to reduce load– this is not how an emergency event works with 30-120 minute lead time
 - Normal Operations requirements load reductions only qualify if they would not have otherwise occurred.
 - How to handle multiple events? (first, last, average, min, max or CSP choice)
 - How to handle Economic (vs LM) offer parameters
 - Lead time, min run time, price, daily/hourly availability



Economic DR in energy market

- CSP determines the following for Economic DR in the RT market:
 - What days and hours are considered for dispatch
 - The offer price which drives whether or not PJM will dispatch
 - The lead time/notification time prior to dispatch
 - The minimum run time if the registration is dispatched
 - The quantity of load reduction that is available by hour
- Potential issues to avoid:
 - Schedule only in the morning when load is typically low
 - Schedule when weather is cool and load is low
 - Schedule when production line already expected to be shutdown

Typically 25 MWs participate as Real Time energy resource (Load Management ~ 8,000 MW)

It is easy for CSP to effectively self schedule when they will be dispatched



Other thoughts

- Implementation date Should we consider 2022/23 instead of waiting for 2023/24 since the auction was postponed?
- Other..