

CSP2 Proposal Load Management Testing

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Where we are today



- PJM1a and CSP2 are results of important compromises
- Some remaining differences have big significance to Enel X (particularly week testing window)
- This presentation will focus on opportunities to consolidate, should PJM and stakeholders agree

Background: System conditions and Load Management (Demand Response) in real events



- In real grid emergencies, a black out is a serious threat to the full grid, including LM customers. A black out can cause physical damage to customer assets and put employee safety at risk.
- Customers receive an incentive payment (starting at \$1,000/MWh) for LM performance in addition to avoiding their own cost of lost load (difficult to quantify). Result: Customers have always showed up in a real event!
- Load forecasts 7 days forward provide a week ahead suggestion that an event may be on horizon. In addition, in most grid emergencies, a Hot/Cold Weather Alert generally precedes the LM event.

Interest Identification



- Example Interests represented in CSP2
 - "Testing results consistent with expected performance during LM events under various conditions"
 - "Load not paying for winter testing through uplift"
 - "LM will be compensated for test events"
 - "Avoid unnecessary testing"

Key difference: Week-Ahead Notification (Component 12 a)



- Key Concern: If the RTO gives relatively little notice of a test and compensates at only LMP, as is the plan in both proposals (say ~ \$30/MWh), will LM test performance indicate anticipated performance as in a real event?
 - Will the test results be biased negatively becuase customers aren't incentivized in same way as in a real event?
- Background: In real LM events, with or without much advanced notification, LM customers have performed extremely well (97% among historic events).
 - Customers are paid a strike price (\$1,000/MWh and above based on lead time) to perform. Customers also face the risk of loss of load (expensive, but difficult to quantify).

Key difference: Week-Ahead Notification (Component 12 a) -Continued



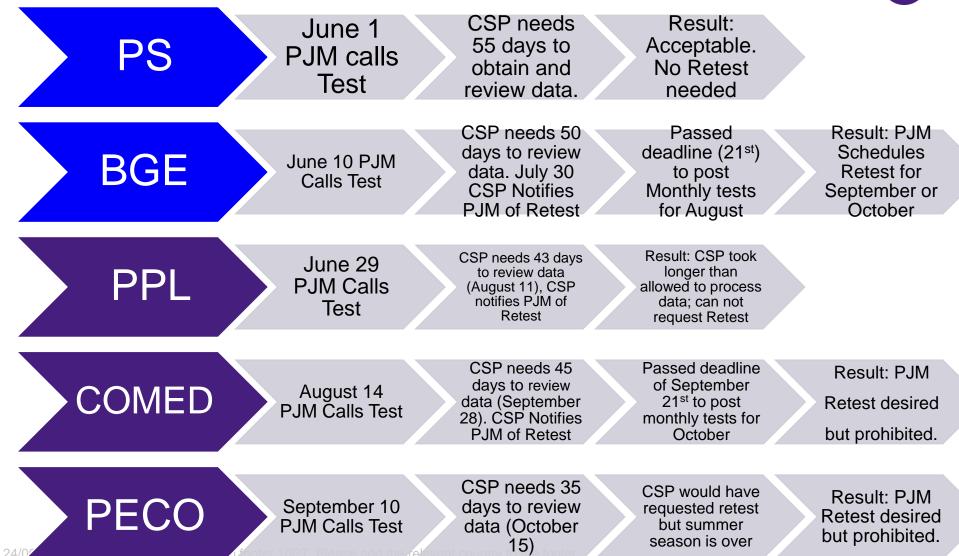
- Impact: RTO procures less DR than is capable of performing in real event. Reliability is reduced. Load pays for more expensive units.
- Solution: A week window of the upcoming test.
 - This is common in other RTOs.
 - Balances RTO's desire for surprise with actual test-day economics.

Other Differences with PJM1a and Areas to Understand Better



- Windows PJM1a testing windows do not differentiate between test and retest. This
 enables the RTO to call a test at times (ex: September) when it would not leave sufficient
 time to conduct a PJM retest in the season should it be requested (Component 4). Why not
 make more clear / set specific periods for test or retest?
- Retest Request Process Rapid "retest/no retest" decision deadline (Component 8).
 - CSPs rely on customer utility data after a test. Obtaining the data may take longer than just the end of the billing month. 60 days is usually sufficient.
 - PJM1a's proposal gives 31-59 days to request a retest depending on when PJM schedules the initial test. If the available time were on the 30-day side, this could be insufficient simply from a data processing and review standpoint.
 - Why not give 60 days as standard amount of time?
 - CSP2 gives sufficient time while respecting need to get data in time to PJM for scheduling retest.
- PJM presentation highlights other areas of differences /potential consolidation for discussion.

Continued – Concerns on PJM1a that may lead to discriminatory PJM retesting process. See theoretical examples below.



These
Examples
Showcase
Key
Concern
Areas

Conclusion



CSP2 accepts most PJM1a elements but has key differences that are vital to fairly account for Load Management Demand Response as an emergency and pre-emergency resource to PJM.

Thank you

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Appendix



	DR Status Quo	Gen Status Quo
Duration	1 hour	1-2 hours 1 Hour for infrequently used resources
Scheduling Test	Capacity Owner	Capacity Owner
Seasons	Summer – Jun- Sept	Summer and Winter Winter met through data adjustment
Test Limit	No limit	No limit
Retest Limit	No Limit	No limit
Test shortfall Impact	Full year	Until next full test