



PJM Load Management Test proposed changes

DRS

7/23/19

- CP requires DR to be available on annual basis for up to 15 hours per day
 - Limited DR only required for 10 days for 6 hours per day
- Test performance (123%) does not reflect prior event performance (97%)
- Mandatory Load Management has not been dispatched in over 5 years (but accounts for > 5% of overall capacity)
- DR load reduction capability under a variety of conditions is not clear

- Testing reflective of LM product availability requirements
- Testing results consistent with expected performance during LM events under various conditions (time of day, time of year, etc.)
- Both resource capability and PJM/CSP communications are tested
- Streamline process for resource energy compensation for reductions provided when performing tests (Currently done through economic DR)
- Test notification process aligns with actual event process (i.e.: Emergency messages prior to LM event day)
- Load not paying for CP DR winter testing through an uplift mechanism
- LM will be compensated for test events
- Avoid unnecessary testing
- Align rules for PRD (note: PJM waiting for FERC Order on PRD)

PJM Proposal 1a – PJM schedules test, CSP schedules retest(s) or PJM schedules retest based on test performance

- PJM managed test will better simulate event conditions and therefore actual DR load reduction capability
 - Avoid CSP “open book” test
 - Align with other ISOs/RTOs/utilities practices
- Conduct test throughout the Delivery Year since DR is required to perform throughout the Delivery Year
- Leverage communication/notification mechanism used for real events.
- Keep DR and PRD test requirements aligned

High Impact / Low Frequency event – requires training/practice/testing to be ready.
DR only dispatched when we are in emergency conditions (expected to be short on reserves)

Modified proposal to address key CSP concerns: Minimize unnecessary testing and mitigate costs

- Testing only required when there is no event in the Delivery Year
- Only 1 test per year required when there is no event
 - ½ the zones tested in the summer and ½ tested in the winter
- Only test for 2 hours whereas typical events are ~ 5 hours
 - load reduction averaged over 2 hours, provides more flexibility in case load reduction starts late.

- Allow CSP to get prepared and schedule necessary maintenance activities
 - PJM will provide month ahead and day ahead notification of zones that will be tested
 - PJM will provide normal lead time advanced notification on the test day.
 - Note: PA Act129 only receives day ahead notification.
 - PJM will test when notified unless there is a reliability issue
 - CSP knows there will be a test and can get ready. For events, the CSP needs to get ready (more cost) but in most cases the event does not occur
 - Testing only done from HE12-18 which is in line with summer peak, winter second peak and normal workday
 - Avoid winter early morning test which would require personnel to be ready before typical work hours.
 - Narrow window allows CSP to better prepare for test
 - Testing only done on non-NERC holiday weekdays
- Compensate for load reductions in the energy market as a price taker to help offset cost.

Ability to retest ("do-over") and/or improve score if CSP has unforeseen problem

- Performance aggregated to zone
 - customer over-performance can offset another customer's underperformance
- Allow CSP to self direct zonal retest(s) if performance >75%.
 - More chances to test if performance was decent but had a few issues
 - Leverage status quo CSP directed retest provisions
 - minimize rule changes
 - provide retest flexibility (multiple retests, only registrations that had performance issue are retested)
- Allow CSP to have one time PJM directed retest if performance <=75%
 - CSP notifies PJM with list of registration to retest and PJM will retest with day ahead notification.
 - CSP not required to retest all registration together, only registrations that had performance issue are retested.



PJM Proposal 1a – Use Cases

Zone	Test Month	Season	MW	Event	Test Status	Test Result	Retest Scheduler*	Retest 1 with test result	Retest 2 with test result	Retest 3 with test result	Final test Performance	Penalty Volume (%)	Penalty Volume (MW)
Meted	7	summer	35	8/20/2019	Tested but subsequent event	no test needed							0
Peco	8	summer	25			78% CSP		83%	95%	90%	95%	5%	1.25
PPL	9	summer	35			85% CSP		102%			102%	0%	0
Dom	10	summer	50			0% PJM		99%			99%	1%	0.5
JCPL	9	summer	40			74% PJM		105%			105%	0%	0
AEP	11	winter	60			103%	no retest needed				103%	0%	0
DPL	12	winter	40	8/20/2019	No test, prior event	no test needed							0
DEOK	1	winter	35			101%	no retest needed				101%	0%	0
Comed	2	winter	50			85% CSP		92%	104%		104%	0%	0
Total			370									Penalty	1.75
												Committed MW	370
* If Test Result is <= 75% there is only 1 retest scheduled by PJM upon request by CSP											Penalty/Committed MW	0.47%	
Zonal test results are based on aggregate performance for all customers in the zone.													

give CSPs plenty of time to adjust to new requirements

- PJM proposes to wait to implement new rules until 23/24 Delivery Year
 - New test requirements apply to new Capacity commitments (May 2020, BRA)
 - Allows CSPs to incorporate into contracts
 - Provides CSPs 3 years to get ready to implement the new test requirements
- PJM can run mock test dispatch in interim years where CSP schedule test under status quo but uses PJM test dispatch to practice.

- CSP 1 and CSP 2 proposal does not address the following identified interests:
 - “Testing reflective of LM product availability requirements”
 - Too many months removed from test cycle
 - “Testing results consistent with expected performance during LM events under various conditions (time of day, time of year, etc.)”
 - Too many opportunities for “do over” – there are no “do overs” during an event
 - “Test notification process aligns with actual event process (i.e.: Emergency messages prior to LM event day)”
 - Too much notification and CSP scheduling which enables test to be choreographed (eliminates the element of surprise)
 - CSP does not schedule actual events
- IMM proposal and identified interest:
 - “Avoid unnecessary testing”
 - Amount of testing compared to potential gain in accuracy.

- Test Event Compliance
 - RAA
 - Schedule 6 PROCEDURES FOR DEMAND RESOURCES AND ENERGY EFFICIENCY, Sections H and K
 - Schedule 6.1 PRICE RESPONSIVE DEMAND
 - OATT Attachment DD.11A, DEMAND RESOURCES TEST FAILURE CHARGE
 - PJM Manual 18, PJM Capacity Market, Section 8.8 Load Management Test Compliance
- Test Event Energy Settlements
 - PJM Manual 28: Operating Agreement Accounting, Section 11: PJM Load Response Programs Accounting
 - PJM Manual 11: Energy & Ancillary Services Market Operations, Section 10: Overview of the Demand Resource Participation