

PJM Load Management Test proposed changes

MIC

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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
- Conduct test throughout the Delivery Year since DR is required to perform throughout the Delivery Year
- Leverage communication/notification mechanism used for real events.

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)

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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.
- Compensate for load reductions in the energy market as a price taker to help offset cost.



Minimize unnecessary testing and mitigate costs (cont')

- 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.
 - 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



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.



Transition Plan – 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.



PJM Proposal 3 – PJM schedules test, CSP schedules retest (more closely simulates events)

- PJM schedules tests with day ahead notice
 - PJM will provide normal lead time advanced notification on the test day
 - Leverage communication/notification mechanism used for real events
- Test duration is 5 hours
- Tests can occur on any day of year
- Tests can occur during any hour of day as defined by the product
 - Summer, 10AM-10PM
 - Winter, 6AM-9PM
- Test performance >75%, CSP can schedule retests
 - Score of 75% or less, result is final
- Compensate for load reductions in the energy market as a price taker to help offset cost



Appendix



PJM Proposal 1a – Use Cases

* If Test Result is <= 75% there is only 1 retest scheduled by PJM upon request by CSF Zonal test results are based on aggregate performance for all customers in the zone.										Penaity/C	Committed MW		0.47%
* If Tost Possult is <= 750/ those is only 1 rotest schoduled by DIM upon request by					wast by CCD				Donalty/C	Committed NAVA		0.470/	
										Committe	ed MW		370
Total			370									Penalty	1.75
Comed	2	winter	50)		85%	CSP	92%	104%		104%	0%	C
DEOK	1	winter	35			101%	no retest ne	eded			101%	0%	C
DPL	12	winter	40	8/20/2019	event	no test need	ded						C
					No test, prior								
AEP	11	winter	60			103%	no retest ne	eded			103%	0%	C
JCPL	9	summer	40)		74%	PJM	105%			105%	0%	C
Dom	10	summer	50			0%	PJM	99%			99%	1%	0.5
PPL	9	summer	35			85%	CSP	102%			102%	0%	C
Peco	8	summer	25			78%	CSP	83%	95%	90%	95%	5%	1.25
Meted	7	summer	35	8/20/2019	•	needed							C
					subsequent	no test							
					Tested but							V ,	,
Zone	Test Month	Season	MW	Event	Test Status	Test Result	Scheduler*	result	result	result		(%)	(MW)
							Retest				Final test	Volume	Volume
								Retest 1	Retest 2	Retest 3		Penality	Penality

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- 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.