Summer 2025 Demand Response Performance

Market Monitoring Unit
Advisory Committee

December 5, 2025

IMM

Monitoring Analytics

June 23: Mid-Atlantic and Dominion

Deploy Time (EPT)	Release Time (EPT)	Resource Type	Lead Time	Zones
1500	2200	Pre-emergency	120 minute	AECO, BGE, DOM, DPL, METED, PECO, PENELEC, PEPCO, PPL, PSEG
1500	2200	Pre-emergency	60 minute	AECO, BGE, DOM, DPL, METED, PECO, PENELEC, PEPCO, PPL, PSEG

June 24: RTO

Deploy Time (EPT)	Release Time (EPT)	Resource Type	Lead Time	Zones
1500	2200	Pre-emergency	120 minute	BGE, DOM, PECO, PEPCO
1530	2200	Pre-emergency	120 minute	AECO, DPL, JCPL, METED, PENELEC, PPL, PSEG
1600	2200	Pre-emergency	120 minute	AEP, APS, DAY, DUQ
1630	2200	Pre-emergency	120 minute	ATSI, COMED, DEOK, EKPC
1500	2200	Pre-emergency	60 minute	BEG, DOM, PECO, PEPCO
1530	2200	Pre-emergency	60 minute	AECO, DPL, JCPL, METED, PENELEC, PPL, PSEG
1600	2200	Pre-emergency	60 minute	AEP, APS, DAY, DUQ
1630	2200	Pre-emergency	60 minute	ATSI, COMED, DEOK, EKPC

June 25: Mid-Atlantic, Dominion and APS

Deploy Time (EPT)	Release Time (EPT)	Resource Type	Lead Time	Zones
1500	1745	Pre-emergency	120 minute	APS
1500	1810	Pre-emergency	120 minute	AECO, BGE, DPL, JCPL, METED, PECO, PENELEC, PEPCO, PPL, PSEG
1500	1900	Pre-emergency	120 minute	DOM
1500	1745	Pre-emergency	60 minute	APS
1500	1810	Pre-emergency	60 minute	AECO, BGE, DPL, JCPL, METED, PECO, PENELEC, PEPCO, PPL, PSEG
1500	1900	Pre-emergency	60 minute	DOM

July 28: BGE, Dominion and PEPCO

Deploy Time (EPT)	Release Time (EPT)	Resource Type	Lead Time	Zones
1545	2100	Pre-emergency	60 minute	BGE, DOM, PEPCO
1645	2100	Pre-emergency	120 minute	BGE, DOM, PEPCO

July 29: RTO

Deploy Time (EPT)	Release Time (EPT)	Resource Type	Lead Time	Zones
1400	2045	Pre-emergency	60 minute	ATSI, BGE, DOM, PEPCO
1430	2115	Pre-emergency	60 minute	AEP, EKPC
1500	2045	Pre-emergency	120 minute	ATSI, BGE, DOM, PEPCO
1500	2130	Pre-emergency	60 minute	AECO, DPL, JCPL, METED, PECO, PENELEC, PPL, PSEG
1530	2115	Pre-emergency	120 minute	AEP, EKPC
1600	2130	Pre-emergency	120 minute	AECO, DPL, JCPL, METED, PECO, PENELEC, PPL, PSEG
1700	2145	Pre-emergency	60 minute	APS, COMED, DAY, DEOK, DUQ
1800	2145	Pre-emergency	120 minute	APS, COMED, DAY, DEOK, DUQ

August 11: BGE

Deploy Time (EPT)	Release Time (EPT)	Resource Type	Lead Time	Zones
1000	2000	Pre-emergency	60 minute	BGE
1000	2000	Pre-emergency	30 minute	BGE
1045	2000	Pre-emergency	120 minute	BGE
1445	1715	Emergency	60 minute	BGE
1515	1715	Emergency	30 minute	BGE

PAI vs Non-PAI Events

- **The summer 2025 dispatch events did not trigger a PAI.**
- **There are no penalties for demand resources failing to perform outside of a PAI.**
- **If a demand resource is dispatched only outside of Performance Assessment Events for the delivery year, its performance for the delivery year may be determined based solely on a Load Management Test.**

Performance Data

- Load management compliance data for event performance is due 45 days after the month in which the event occurs.
- Data supporting requested energy settlements is due 60 days after an event.
- Due the to lag in settlements, performance data for the August 11, 2025 event is not presented
  - Will be available in 2025 Annual State of the Market Report

Performance Metric

- Load management resources were evaluated based on their ability to reduce load to their nominated Firm Service Level (FSL).
- Customer Base Line (CBL) is an hourly estimate of the load level of a demand resource in the absence of a demand response event.
- The expected hourly reduction of each resource is defined as the difference between the CBL and the FSL.
- The actual hourly reduction is defined as the difference between the CBL and the metered load.
- If a resource reduces to its FSL, then its actual reduction equals its expected reduction.

Performance Metric

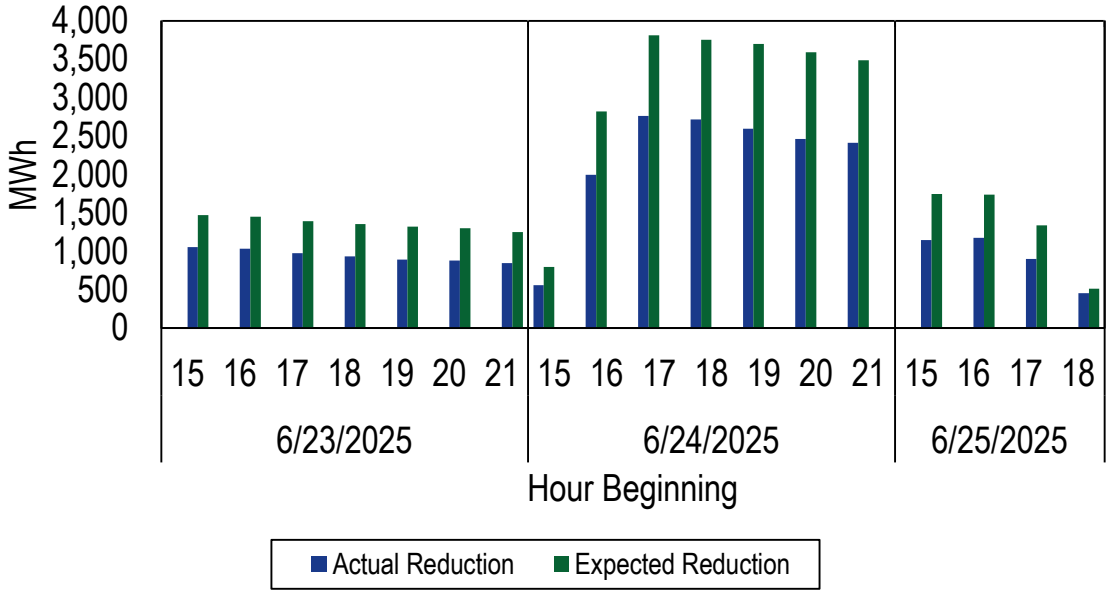
- This metric provides a better assessment of demand response performance than simply comparing metered load to FSL.
- During Winter Storm Elliott, demand resource loads were already at a reduced level when dispatched.
  - While deemed to have generally met their ICAP commitments, there was very little incremental reduction provided in order to reach their FSL.
- The difference between CBL and FSL provides a better estimate of the expected incremental reduction.
- If a dispatched registration has a CBL equal to or less than the FSL, the expected incremental reduction is zero.

Expected vs Actual Daily Performance

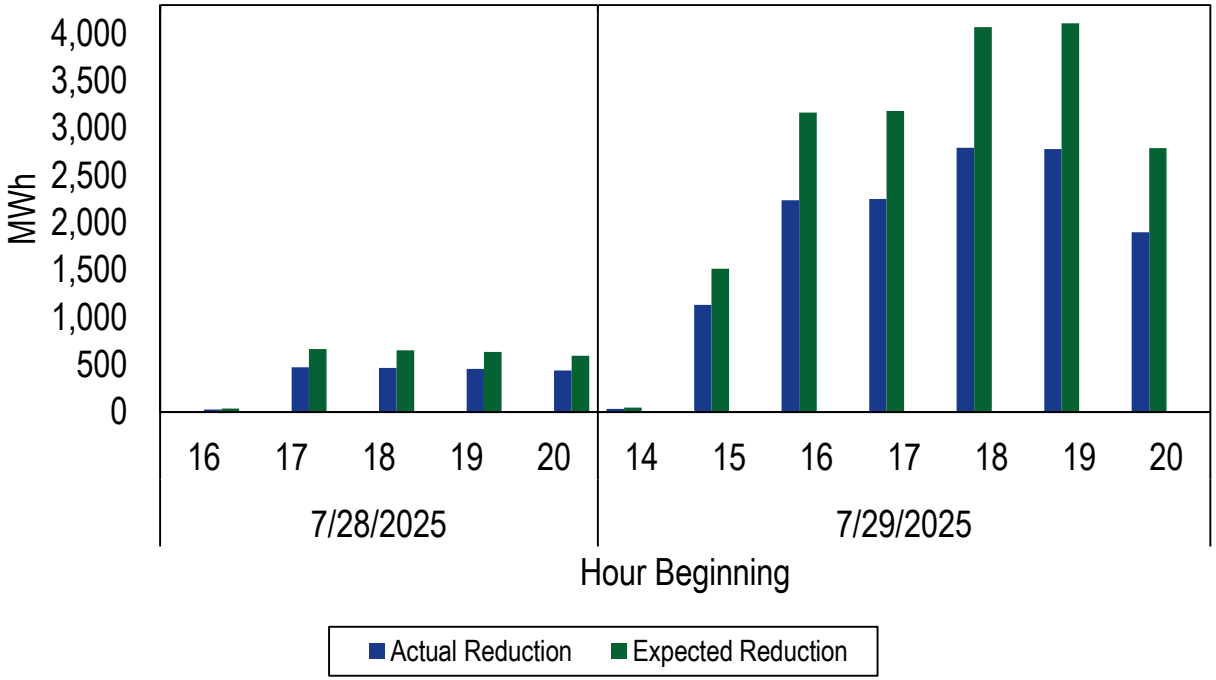
Date	Actual Reduction (MWh)	Expected Reduction (MWh)	Percent Performance
23-Jun-25	6,614	9,540	69.3%
24-Jun-25	15,506	21,963	70.6%
25-Jun-25	3,675	5,339	68.8%
Total	25,796	36,842	70.0%

Date	Actual Reduction (MWh)	Expected Reduction (MWh)	Percent Performance
28-Jul-25	1,866	2,590	72.0%
29-Jul-25	13,128	18,868	69.6%
Total	14,994	21,458	69.9%

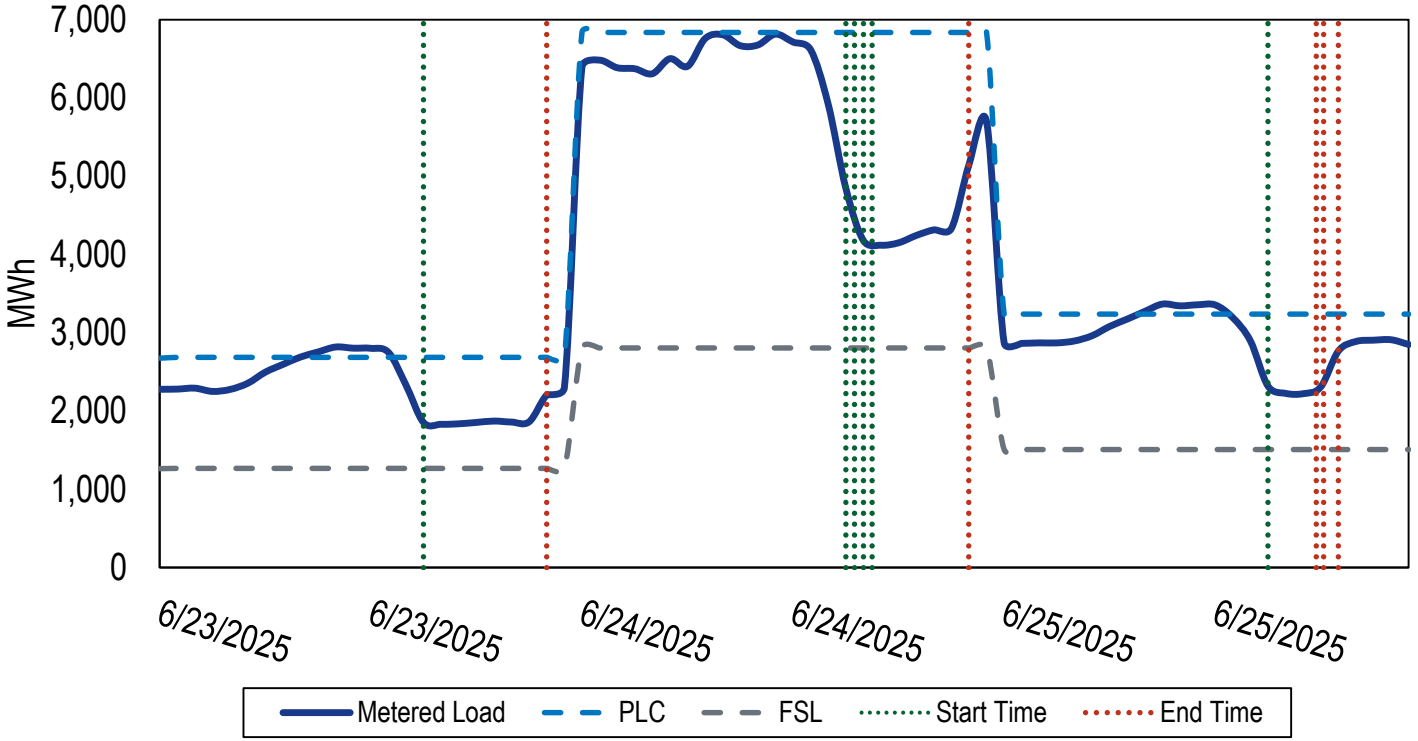
Hourly Performance: June 23-25



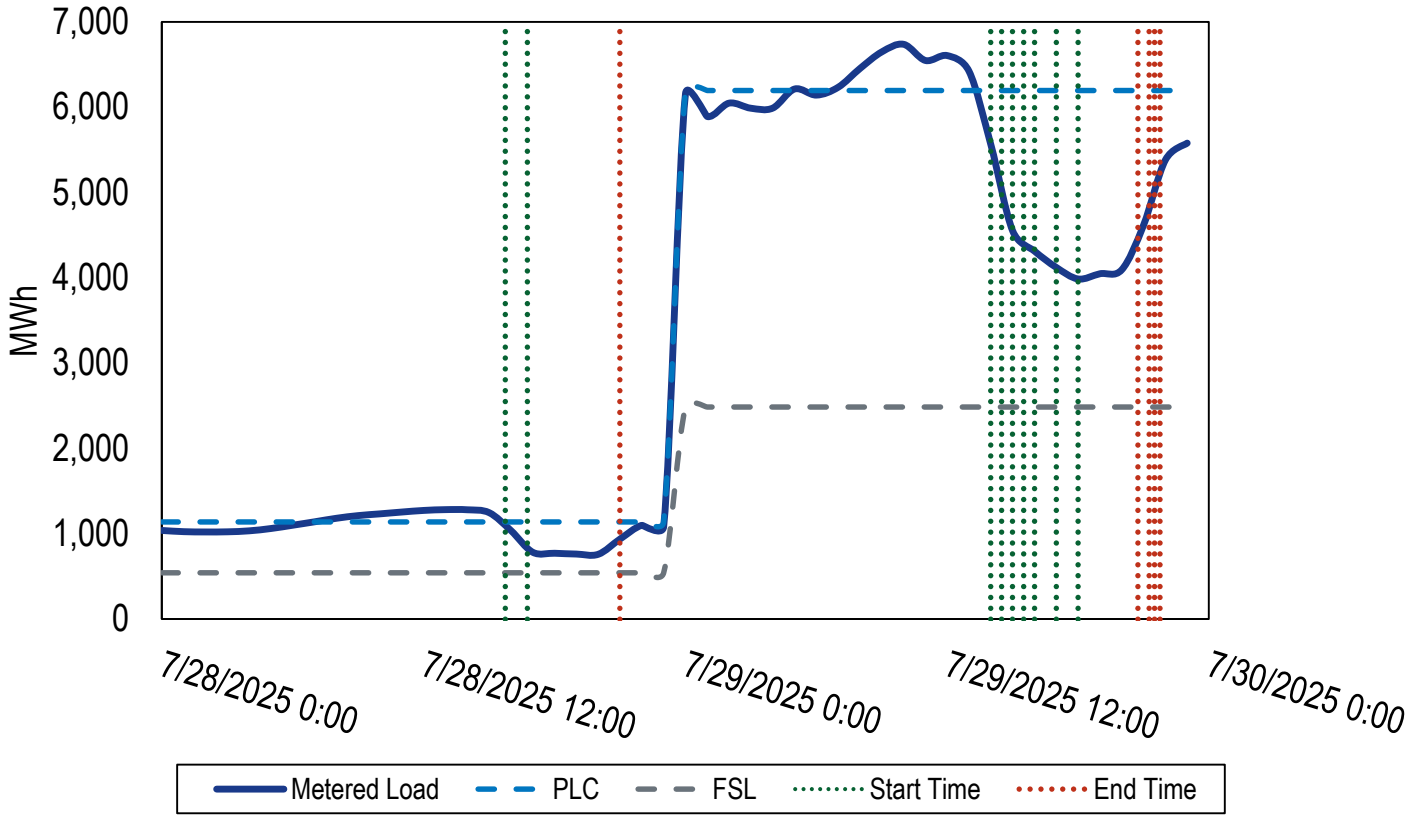
Hourly Performance: July 28-29



FSL, PLC and Metered Load: June 23-25



FSL, PLC and Metered Load: July 28-29



Emergency Energy Credits

Date	Real-Time Actual Relief (MWh)	Average Emergency Bid Price	Average Emergency Shutdown Cost	Average LMP	Emergency Load Response Energy Credit	Emergency Load Response Energy Make-Whole Credit	Total Emergency Energy Revenue
23-Jun-25	7,397	$1,143	$48	$555	$4,105,528	$3,616,557	$7,722,084
24-Jun-25	19,096	$1,134	$82	$662	$12,639,948	$8,862,562	$21,502,510
25-Jun-25	5,149	$1,132	$72	$212	$1,092,332	$4,347,255	$5,439,587
Total	31,642	$1,136	$67	$564	$17,837,807	$16,826,374	$34,664,181

Date	Real-Time Actual Relief (MWh)	Average Emergency Bid Price	Average Emergency Shutdown Cost	Average LMP	Emergency Load Response Energy Credit	Emergency Load Response Energy Make-Whole Credit	Total Emergency Energy Revenue
28-Jul-25	2,140	$1,103	$3	$272	$582,748	$1,492,173	$2,074,921
29-Jul-25	18,977	$1,135	$82	$189	$3,583,311	$18,009,167	$21,592,478
Total	21,117	$1,119	$42	$197	$4,166,059	$19,501,339	$23,667,399

Conclusions and Recommendations

- **Load management resources have the same obligation to perform when called upon, regardless of whether the dispatch event occurs as part of a PAI or not.**
- **There is no reason therefore to allow the optionality of testing in lieu of using non-PAI event performance.**
- **If demand resources are only subject to non-PAI dispatch events during the delivery year, their ability to meet their obligations are best defined by actual operational performance rather than through a test.**
- **The MMU recommended in 2023 that PJM revise its Tariff to include an event specific measurement for dispatch occurring outside of PAI events and penalties for nonperformance.**

Next Steps

- **November 20 MRC: DR/PRD Issue Charge Endorsed**
  - **Load Management and PRD incentives and penalties may be insufficient to ensure performance.**
    - Process and/or system changes
    - Corresponding revisions to the PJM Tariff or other governing documents as applicable will be brought to the MRC and MC for review and endorsement.
    - Proposed revisions to PJM Manuals conforming to the FERC approved solution will be brought to the appropriate Committees for review and endorsement.
  - **CBIR-lite at MIC starting December 3**
  - **Filing: April 2026**
  - **Implementation: 2028/2029 BRA (June 2026)**

Monitoring Analytics, LLC
2621 Van Buren Avenue
Suite 160
Eagleville, PA
19403
(610) 271-8050

MA@monitoringanalytics.com
www.MonitoringAnalytics.com