

2025 Demand Response Operations Markets Activity Report: April 2025

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PJM Demand Side Response Operations

April 7, 2025



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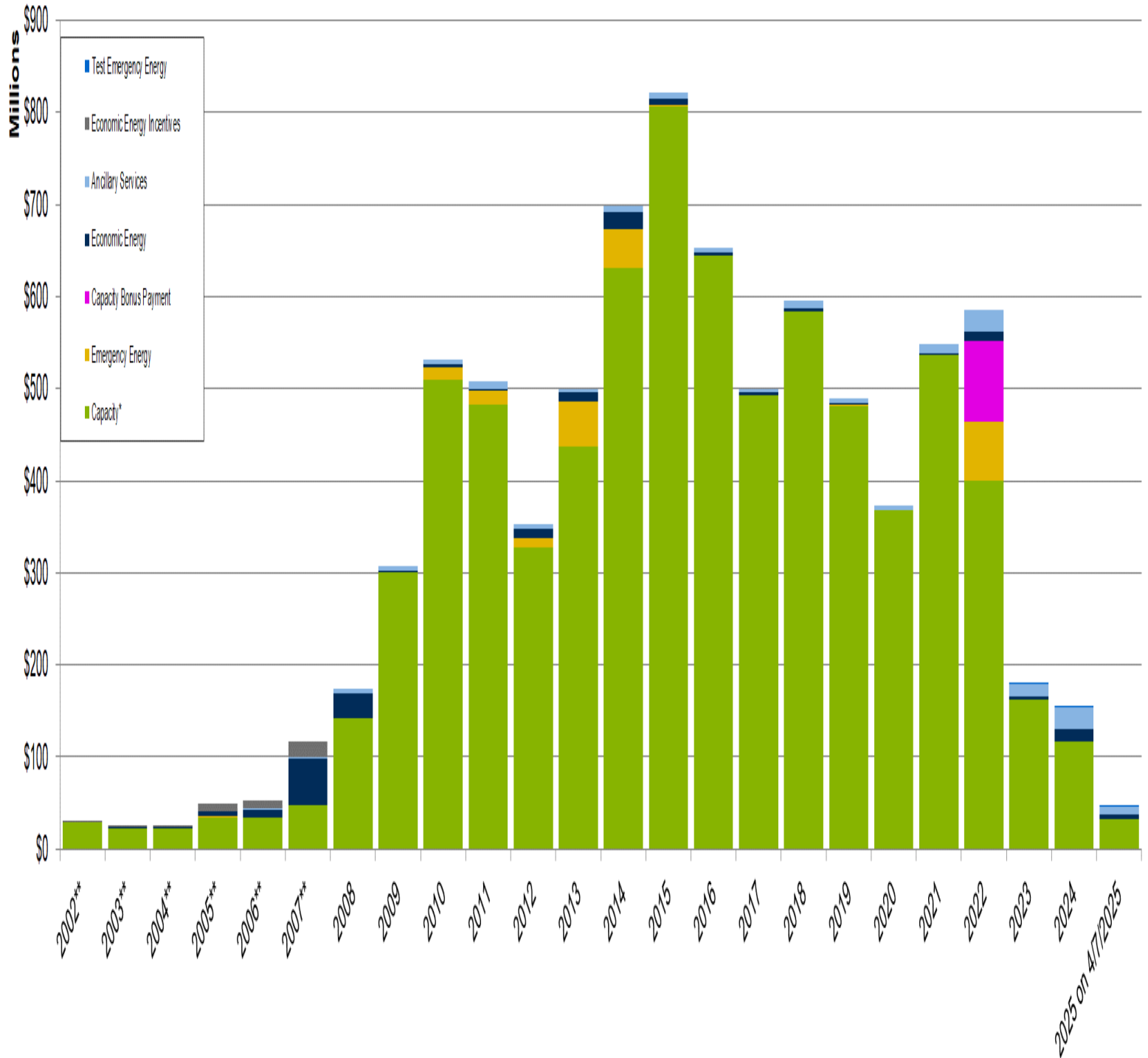
Figure 1: DY 24/25 Active Participants in DR Programs

Zone	Economic		Load Management		Unique	
	Locations	MW	Locations	MW	Locations	MW
AECO	10	5.7	169	36.8	173	40.1
AEP	506	824.9	1,704	1,653.8	1,747	1,885.3
APS	63	308.4	1,219	537.0	1,232	558.0
ATSI	66	590.3	1,325	666.9	1,354	1,051.6
BGE	29	26.0	799	202.0	802	202.3
COMED	90	83.9	2,531	992.6	2,578	1,001.4
DAY	15	15.6	198	174.0	201	179.7
DEOK	34	167.8	427	207.0	429	247.9
DOM	88	150.8	1,230	660.4	1,280	760.8
DPL	125	28.9	573	143.4	574	143.5
DUQ	15	136.0	493	99.0	502	121.0
EKPC			22	320.6	22	320.6
JCPL	14	45.0	302	102.4	305	142.6
METED	16	105.7	545	143.0	551	232.6
PECO	62	80.9	1,230	339.4	1,242	377.0
PENELEC	14	117.1	609	267.0	614	330.8
PEPCO	20	33.6	627	161.8	637	167.3
PPL	472	95.2	1,400	426.1	1,583	468.1
PSEG	23	43.0	936	278.7	947	295.0
RECO			16	2.2	16	2.2
Total	1,662	2,859	16,355	7,414	16,789	8,528

Note:

- 1) Data as of April 1, 2025.
- 2) Load Management MW are ICAP and include FRR values.
- 3) Economic MW are CSP reported Load Reduction values.
- 4) Residential Locations reported as one location not a total number of end use customers in that program.
- 5) Unique MW: represents total estimated demand reduction assuming full Load Management and Economic reduction.
- 6) For the winter period of DY24/25, Total DR Commitment Value is 7,100 MW (includes FRR value of 457 MW).

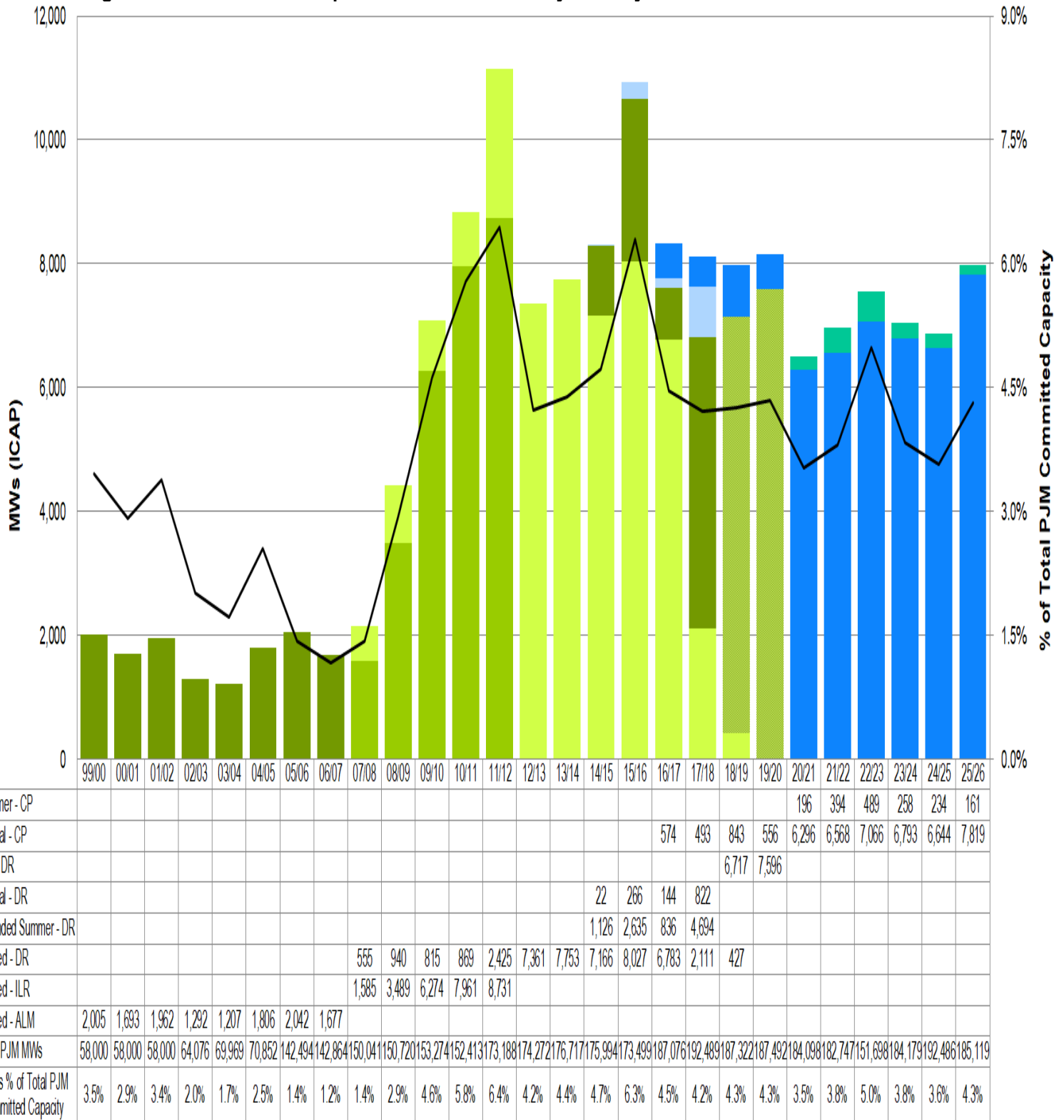
Figure 2: PJM Estimated Revenue for Economic and Load Management DR by Wholesale Markets



* Capacity Net Revenue inclusive of Capacity Credits and Charges. From 2020 on this value also includes Price Responsive Demand Credits.

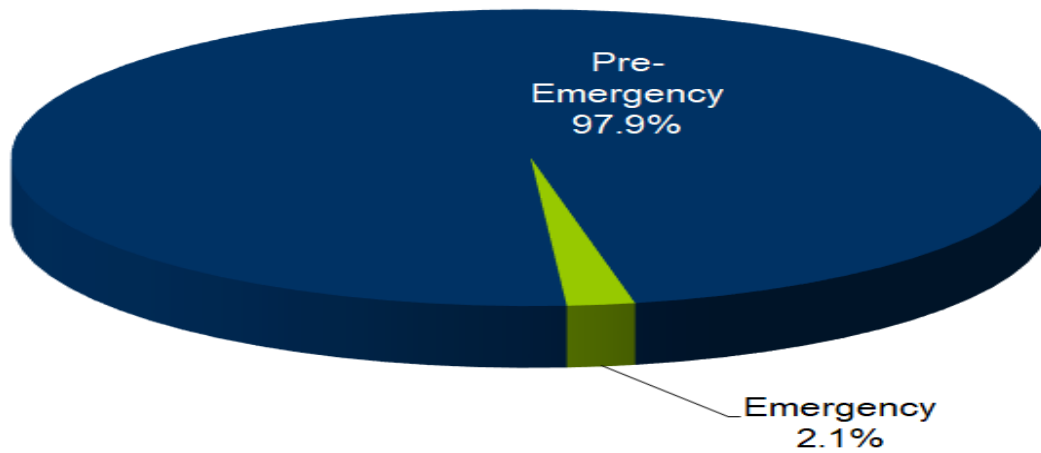
** PJM assumes capacity value at \$50 MW Day (PJM does not know the value of capacity credits in the forward market prior to RPM; only a portion of capacity was purchased through the daily capacity market at the time).

Note: Capacity Bonus Payments include payments for Load Management, Economic (includes Ancillary Services) and Price Responsive Demand registrations.

Figure 3: PJM Demand Response Committed MWs by Delivery Year

Notes:

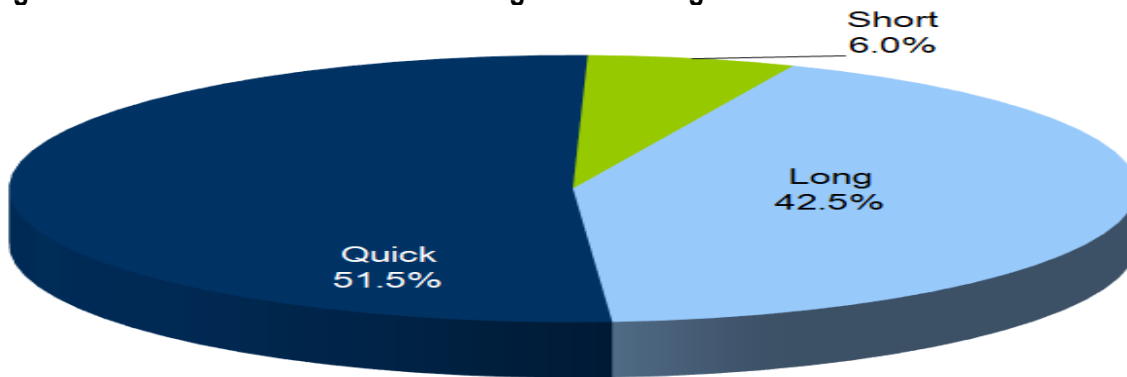
- 1) Data represents net commitment ICAP value (for each product) as of 8/8/2024. Does not include FRR values.
- 2) DY 25/26 MWs includes data from the Base Residual Auction.
- 3) RPM was implemented DY 07/08.
- 4) ALM MWs are seasonal averages for Delivery Years before 07/08.

Figure 4: DY 24/25 Confirmed Load Management DR Registrations by Resource



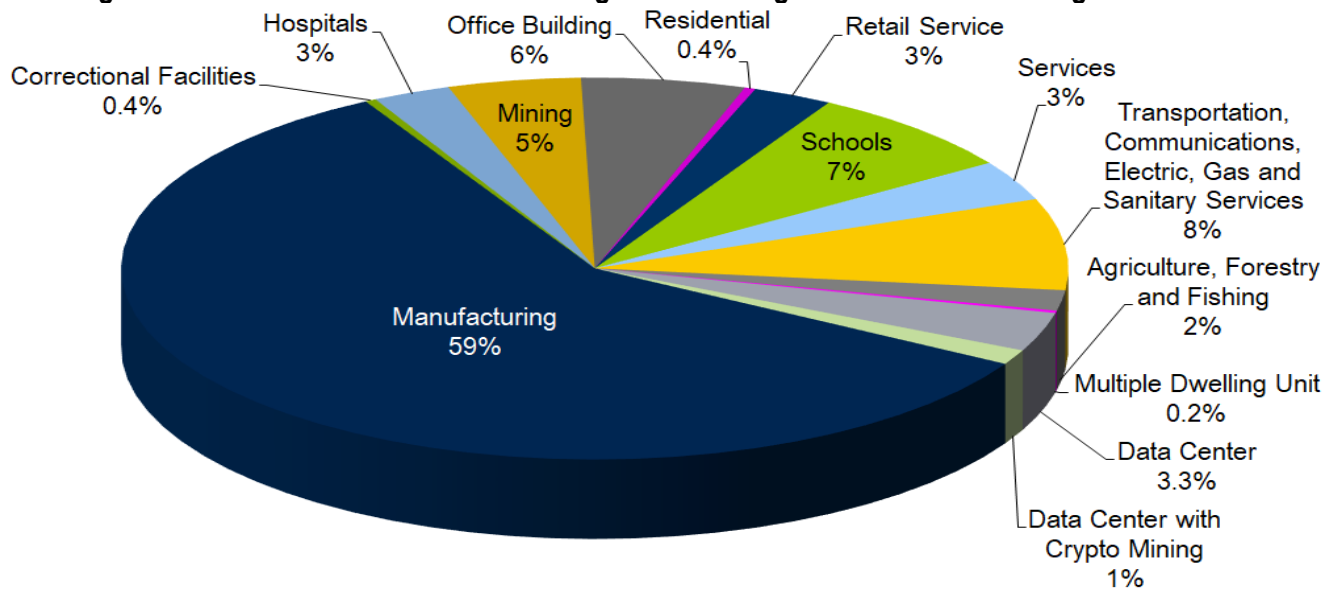
Note: Percent of Winter Nominated Capacity (MWs) based on Figure 1 Load Management MW Total.

Figure 5: DY 24/25 Confirmed Load Management DR Registrations Lead Times



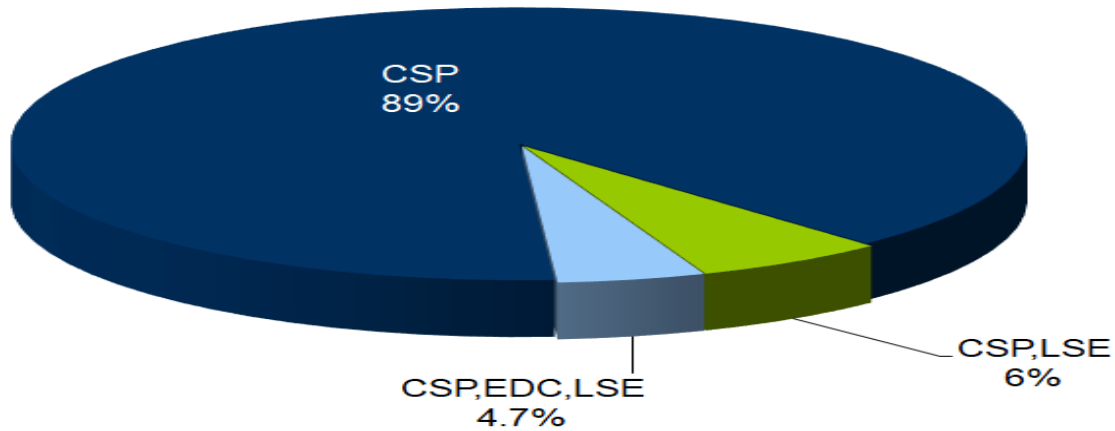
Note: Percent of Winter Nominated Capacity (MWs) based on Figure 1 Load Management MW Total.

Figure 6: DY 24/25 Confirmed Load Management DR Registrations Business Segments



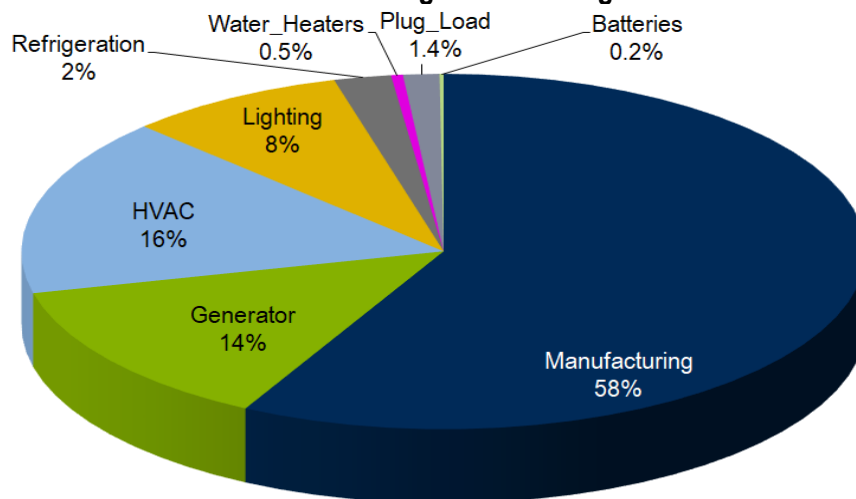
Note: Percent of Winter Nominated Capacity (MWs) based on Figure 1 Load Management MW Total.

Figure 7: DY 24/25 Confirmed Load Management DR Registrations Owner/Company Type



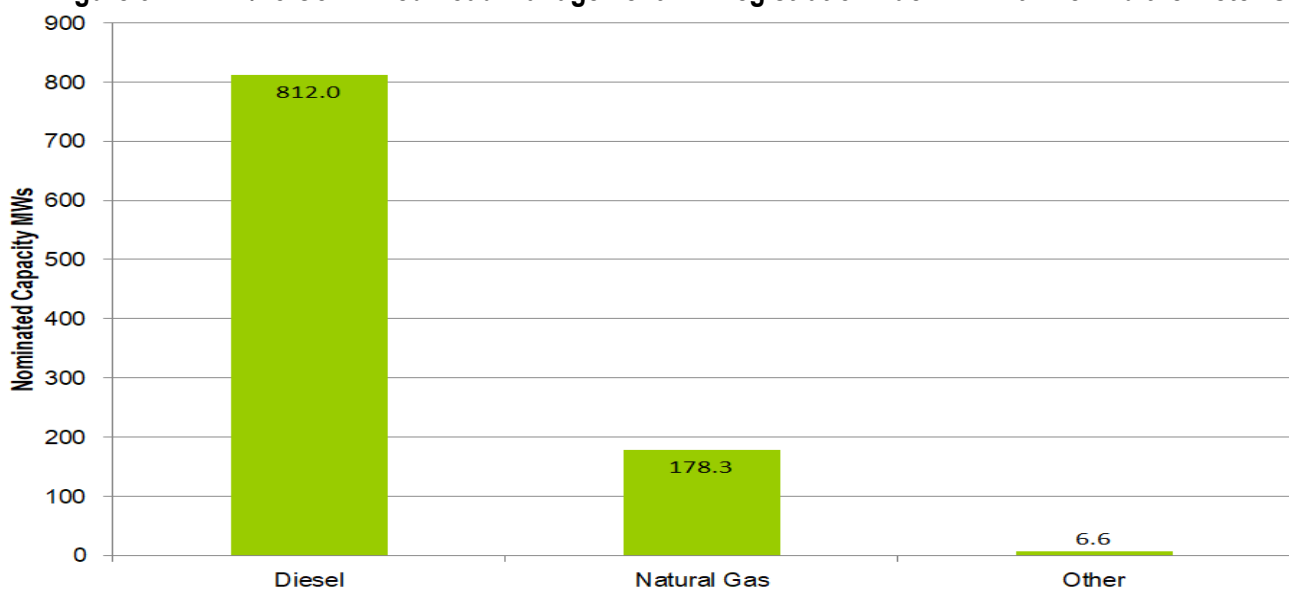
Note: Percent of Winter Nominated Capacity (MWs) based on Figure 1 Load Management MW Total.

Figure 8: DY 24/25 Confirmed Load Management DR Registrations Customer Load Reduction Methods



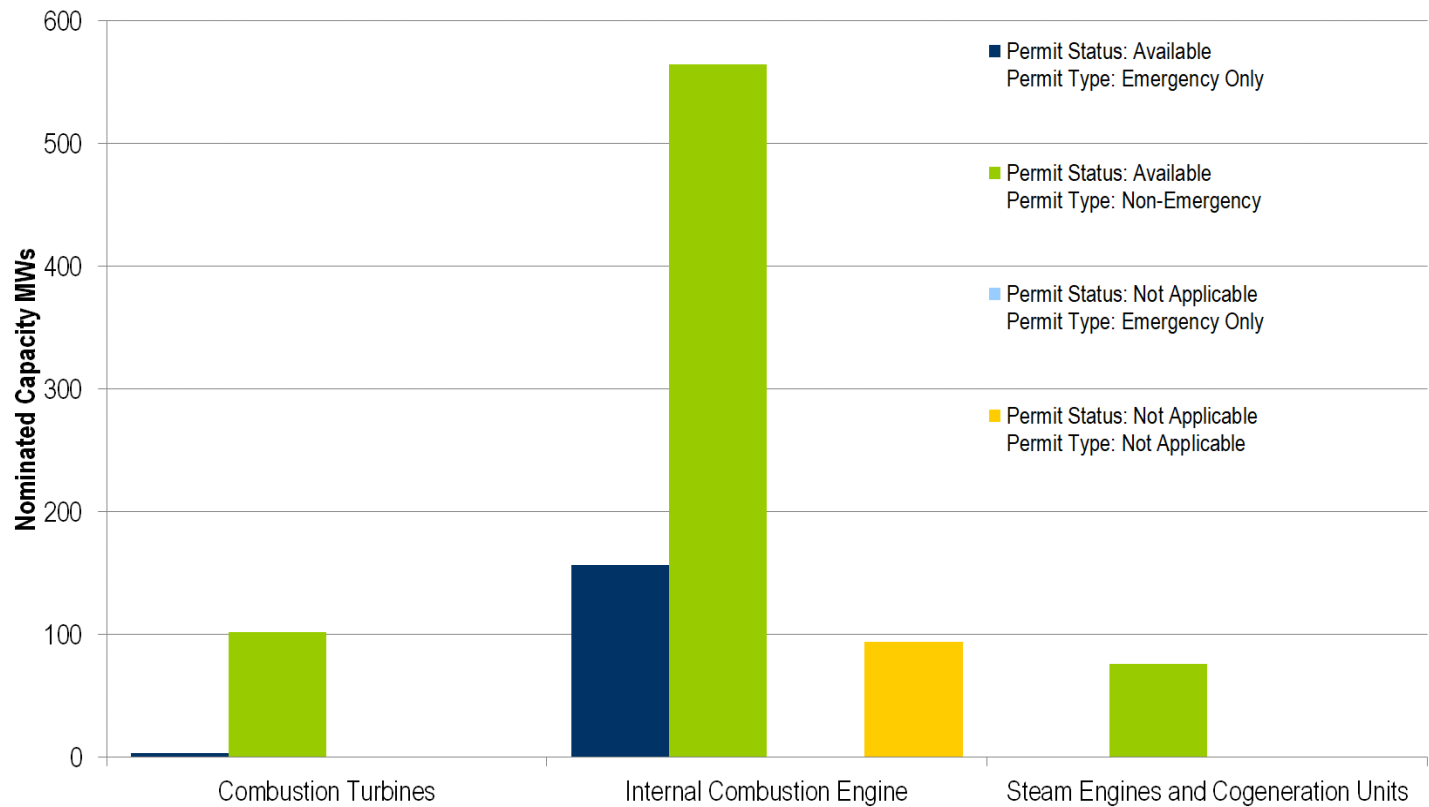
Note: Percent of Winter Nominated Capacity (MWs) based on Figure 1 Load Management MW Total. Plug Load includes nominated capacity from Data Centers with Crypto Mining.

Figure 9: DY 24/25 Confirmed Load Management DR Registration Fuel Mix with Behind the Meter Generation



Note: Portion of Winter Nominated Capacity (MWs) based on Figure 1 Load Management MW Total. The category "Other" includes Oil, Propane, Waste Products and Coal

Figure 10: DY 24/25 Confirmed Load Management DR Registrations Generator and Permit Type



Note: Portion of Winter Nominated Capacity (MWs) based on Figure 1 Load Management MW Total.

Figure 11: DY 24/25 Confirmed Load Management Full DR Registrations Energy Supply Curve:

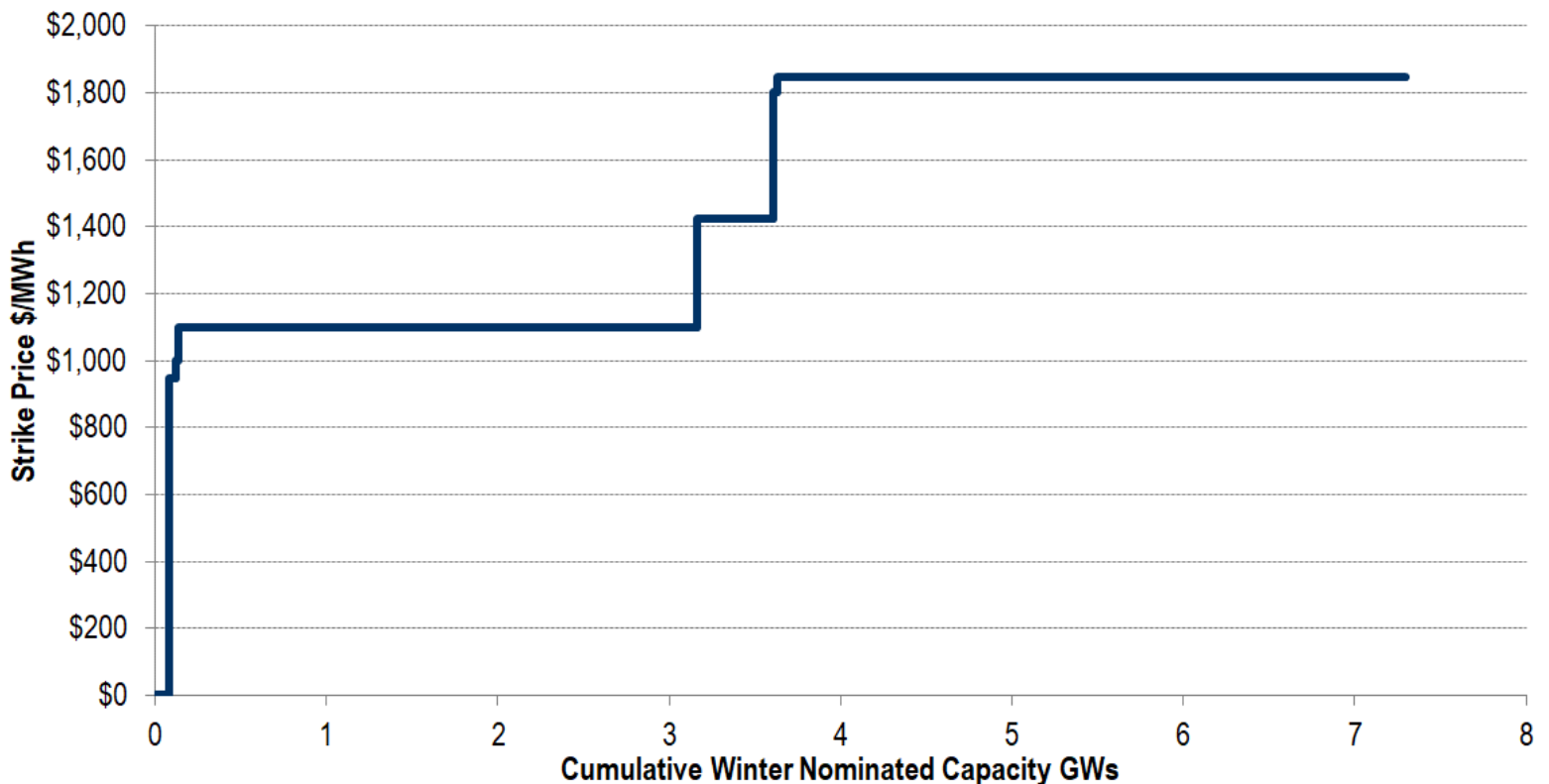


Figure 12: 2025 Load Management Demand Response Monthly Capacity Revenue from RPM

Zone	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
AECO	\$110,995	\$100,253	\$110,995									
AEP	\$981,538	\$886,550	\$981,538									
APS	\$573,335	\$517,851	\$573,335									
ATSI	\$619,177	\$559,256	\$619,177									
BGE	\$448,300	\$404,916	\$448,300									
COMED	\$1,264,960	\$1,142,544	\$1,264,960									
DAY	\$174,561	\$157,668	\$174,561									
DEOK	\$662,025	\$597,958	\$662,025									
DOM	\$726,698	\$656,372	\$726,698									
DPL	\$783,183	\$707,391	\$783,183									
DUQ	\$108,120	\$97,657	\$108,120									
EKPC	\$259,094	\$234,021	\$259,094									
JCPL	\$218,999	\$197,805	\$218,999									
METED	\$334,147	\$301,810	\$334,147									
PECO	\$607,149	\$548,392	\$607,149									
PENELEC	\$481,583	\$434,978	\$481,583									
PEPCO	\$224,452	\$202,731	\$224,452									
PPL	\$925,730	\$836,143	\$925,730									
PSEG	\$474,719	\$428,779	\$474,719									
RECO	\$4,486	\$4,052	\$4,486									
Total	\$9,983,251	\$9,017,130	\$9,983,251									

Total Capacity Credits: \$28,983,632

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Figure 13: Preliminary DY 25/26 Confirmed Load Management Participants

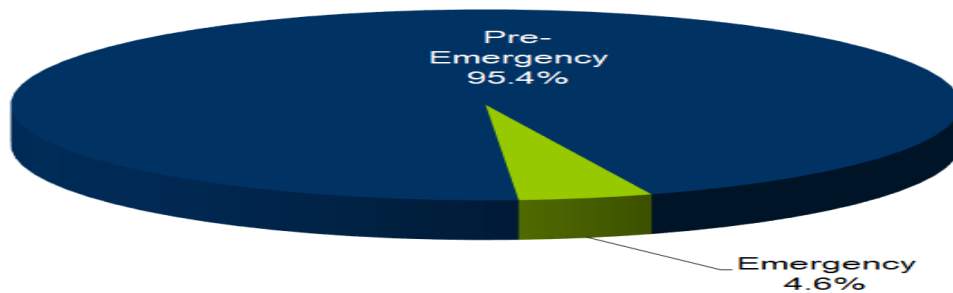
Zone	Load Management	
	Locations	MW
AECO	111	24.5
AEP	777	863.9
APS	551	313.4
ATSI	516	636.9
BGE	384	106.1
COMED	1,305	599.4
DAY	98	51.2
DEOK	106	36.0
DOM	210	187.2
DPL	250	68.4
DUQ	203	82.1
JCPL	140	44.3
METED	190	85.5
PECO	374	137.7
PENELEC	310	126.5
PEPCO	261	85.0
PPL	614	349.8
PSEG	468	183.9
RECO	9	1.5
Totals	6,877	3,983

Note:

1) Data as of April 1, 2025.

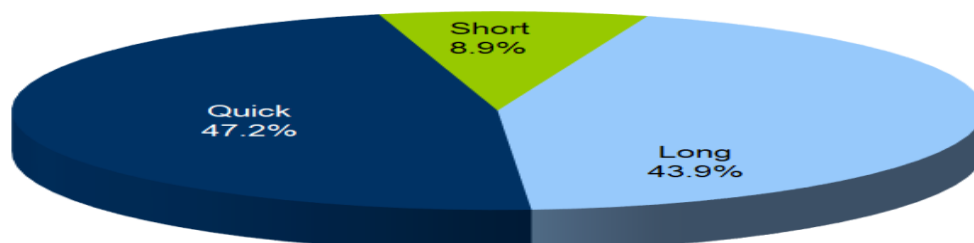
2) Load Management MW are Summer ICAP and include FRR value:

Figure 14: Preliminary DY 25/26 Confirmed Load Management DR Registrations by Resource



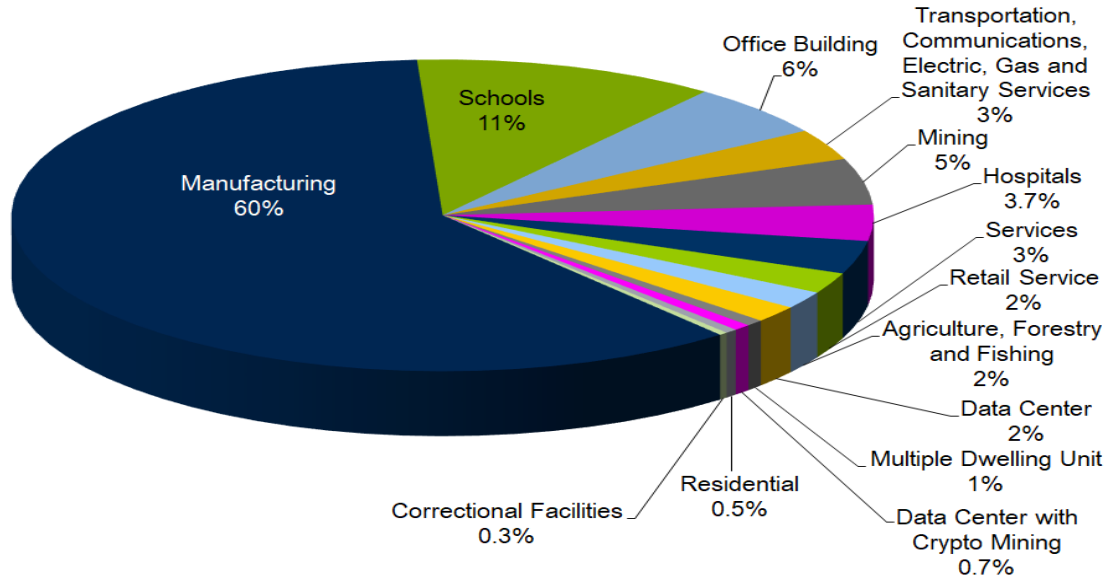
Note: Percent of Summer Nominated Capacity (MWs) based on Figure 13 Load Management MW Total.

Figure 15: Preliminary DY 25/26 Confirmed Load Management DR Registrations Lead Times



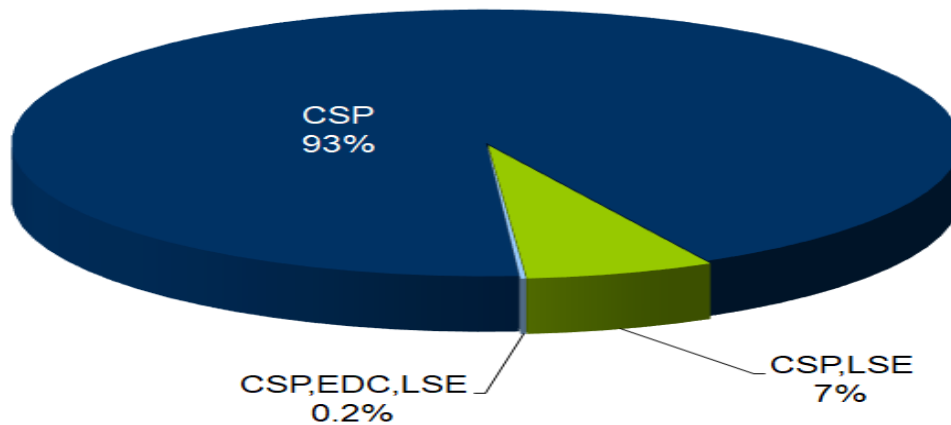
Note: Percent of Summer Nominated Capacity (MWs) based on Figure 13 Load Management MW Total.

Figure 16: Preliminary DY 25/26 Confirmed Load Management DR Registrations Business Segments



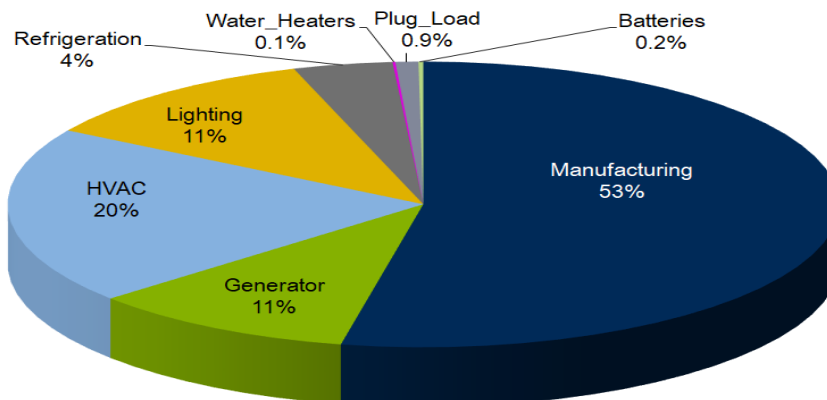
Note: Percent of Summer Nominated Capacity (MWs) based on Figure 13 Load Management MW Total.

Figure 17: Preliminary DY 25/26 Confirmed Load Management DR Registrations Owner/Company Type



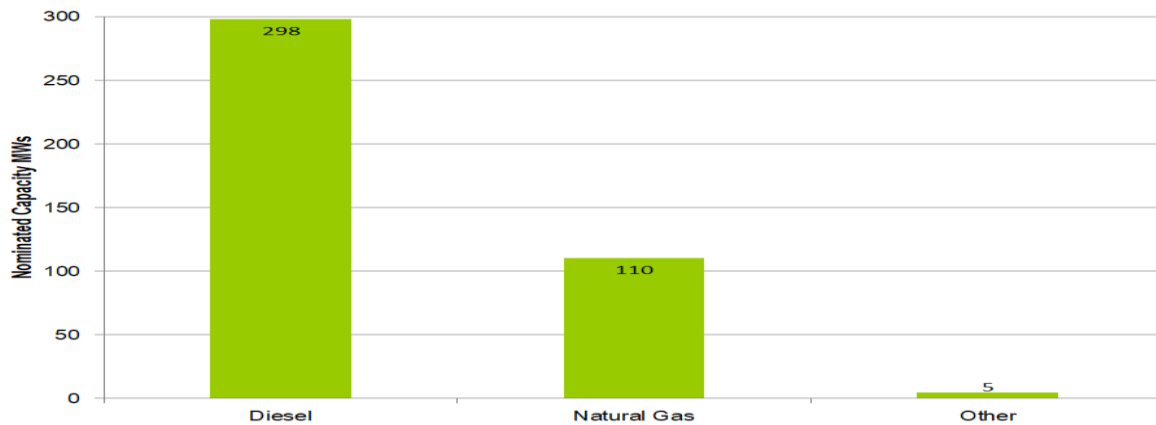
Note: Percent of Summer Nominated Capacity (MWs) based on Figure 13 Load Management MW Total.

Figure 18: Preliminary DY 25/26 Confirmed Load Management DR Registrations Customer Load Reduction Methods



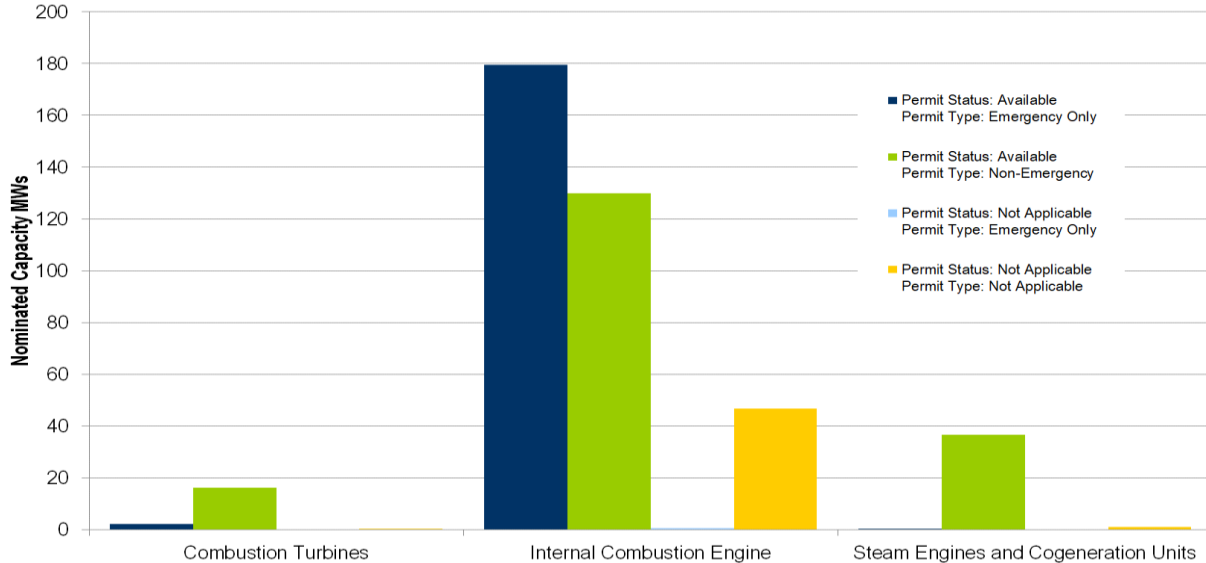
Note: Percent of Summer Nominated Capacity (MWs) based on Figure 13 Load Management MW Total.

Figure 19: Preliminary DY 25/26 Confirmed Load Management DR Registration Fuel Mix with Behind the Meter Generation



Note: Portion of Summer Nominated Capacity (MWs) based on Figure 13 Load Management MW Total. "Other" includes Oil, Propane, Waste Products and Gasoline.

Figure 20: Preliminary DY 25/26 Confirmed Load Management DR Registrations Generator and Permit Type



Note: Portion of Summer Nominated Capacity (MWs) based on Figure 13 Load Management MW Total.

Figure 21: Preliminary DY 25/26 Confirmed Load Management Full DR Registrations Energy Supply Curve:

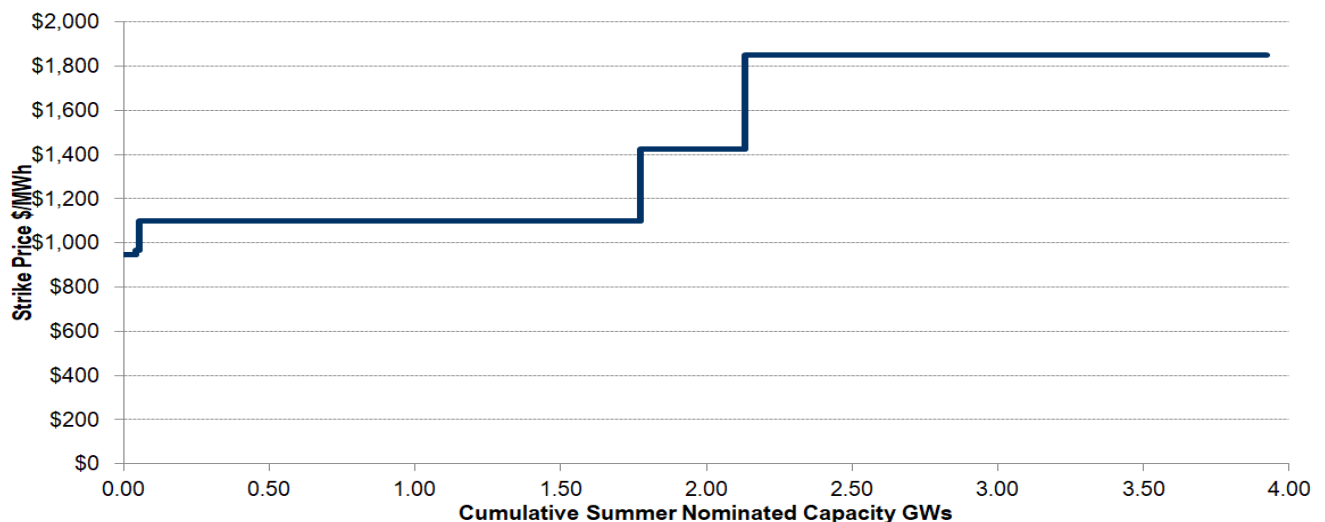
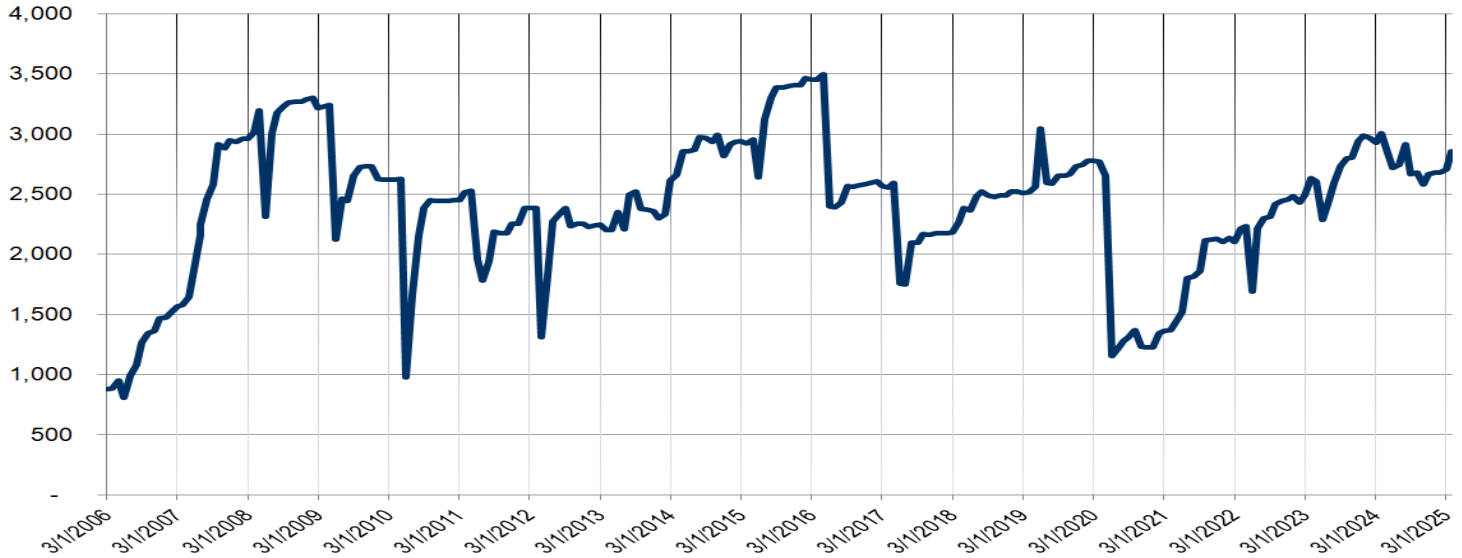
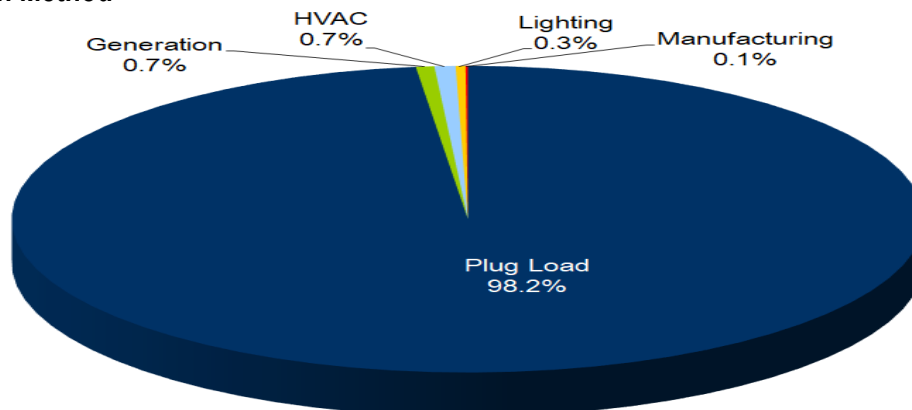


Figure 22: PJM Economic Demand Response Capability in Energy Market (3/1/2006-4/1/2025)


Capability represents total amount that may be offered. Actual offered and cleared volume may be significantly lower and is represented in subsequent figures/tables in report.

Figure 23: 2025 Economic Demand Response Total Energy Market Summary (Dispatch/Cleared vs Settled)

Time		Zone		MWh			Registration Hours			Credits
Year	Month	Dispatched/Cleared	Settled	Dispatched/Cleared	Settled	%	Dispatched/Cleared	Settled	%	\$
2024	1	9	9	54,090	45,420	84%	3,825	3,287	86%	\$3,262,247
2024	2	9	8	55,879	40,507	72%	3,498	2,746	79%	\$2,242,429
2024	3	9		53,987			3,502			
2024	4									
2024	5									
2024	6									
2024	7									
2024	8									
2024	9									
2024	10									
2024	11									
2024	12									
YTD Totals				163,956	85,927	52%	10,825	6,033	56%	\$5,504,676
YTD Average		9	9							

Figure 24: 2025 Economic Demand Response Energy Market Year to Date Total Settled MWh by Load Reduction Method


Note: Pie chart based on YTD Totals for MWh Settled based on Figure 23. Plug Load includes reductions from Data Centers with Crypto Mining.

Figure 25: 2025 Economic Demand Response Dispatched vs Settled Real-Time Energy Market Summary

Time		Zone		MWh			Registration Hours			Credits
Year	Month	Dispatched	Settled	Dispatched	Settled	%	Dispatched	Settled	%	\$
2024	1	4	4	213	324	153%	287	255	89%	\$24,927
2024	2	5	4	1,285	1,338	104%	462	431	93%	\$105,930
2024	3	4		117			255			
2024	4									
2024	5									
2024	6									
2024	7									
2024	8									
2024	9									
2024	10									
2024	11									
2024	12									
YTD Totals				1,615	1,662	103%	1,004	686	68%	\$130,858
YTD Average		4	4							

Figure 26: 2025 Economic Demand Response Cleared vs Settled Day-Ahead Energy Market Summary

Time		Zone		MWh			Registration Hours			Credits
Year	Month	Cleared	Settled	Cleared	Settled	%	Cleared	Settled	%	\$
2024	1	8	8	53,878	45,096	84%	3,538	3,032	86%	\$3,237,320
2024	2	7	6	54,593	39,169	72%	3,036	2,315	76%	\$2,136,499
2024	3	7		53,870			3,247			
2024	4									
2024	5									
2024	6									
2024	7									
2024	8									
2024	9									
2024	10									
2024	11									
2024	12									
YTD Totals				162,341	84,265	52%	9,821	5,347	54%	\$5,373,819
YTD Average		7	7							

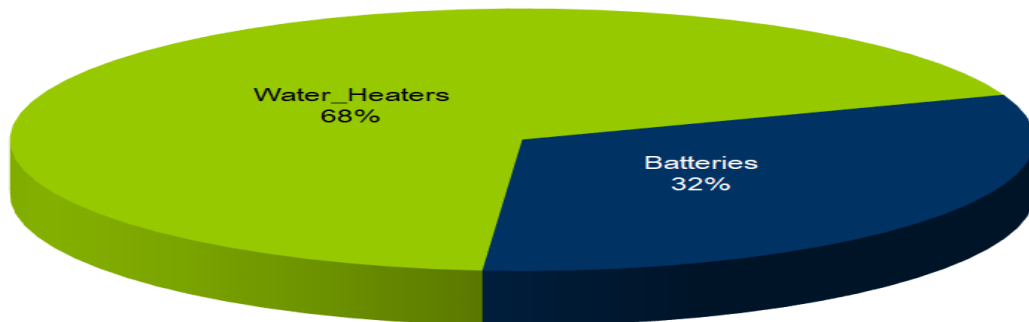
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Figure 27: 2025 Economic Demand Response Locations and Capability MWs in the Ancillary Service Markets

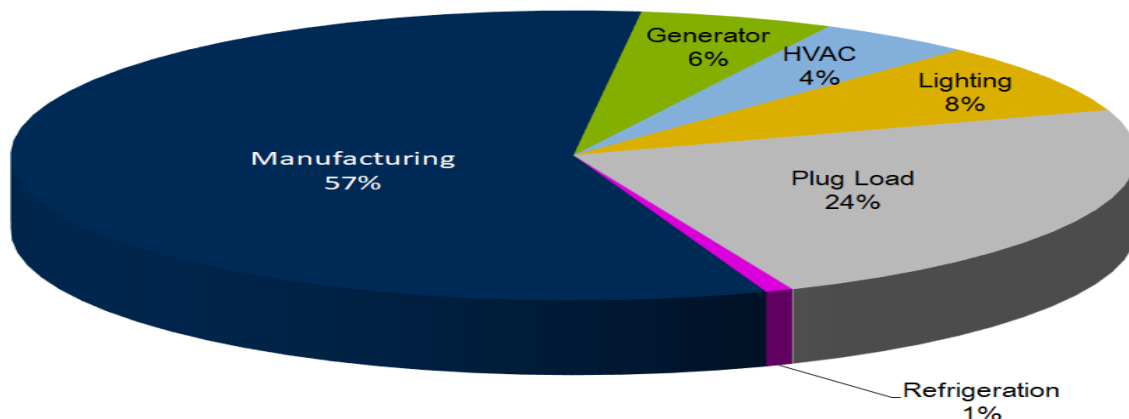
Synch Reserves	Zone	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Locations	MAD	237	240	213									
	Non-MAD	267	267	270									
	RTO	504	507	483									
Average Number of Unique Participating Locations per Month:		498											
MWs	MAD	502	504	496									
	Non-MAD	1,709	1,728	1,872									
	RTO	2,211	2,233	2,368									
Average MWs per Month:		2,270											

Regulation	Zone	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Locations	RTO	524	524	524									
Average Number of Unique Participating Locations per Month:		524											
MWs	RTO	211	211	214									
Average MWs per Month:		212											

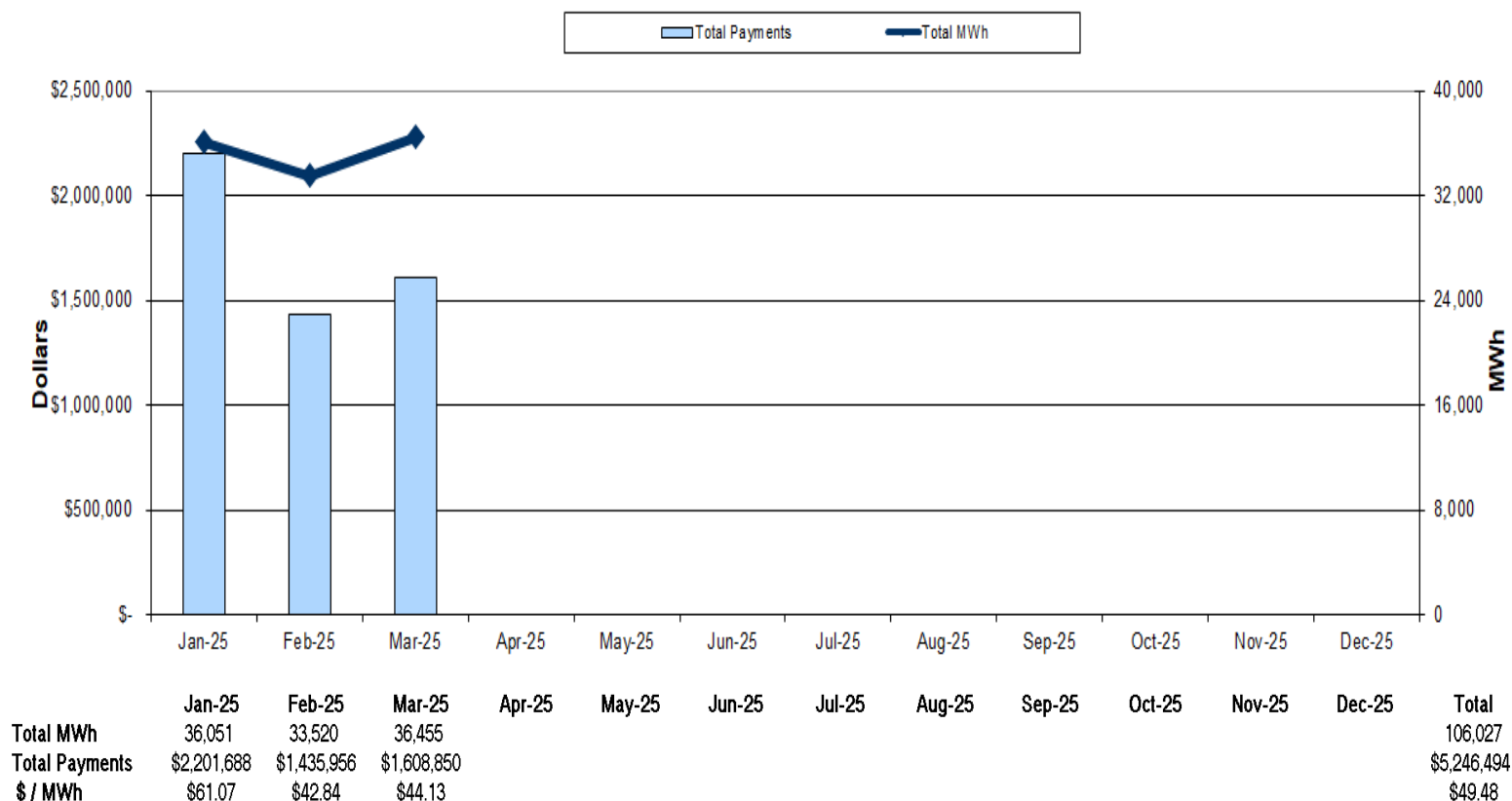
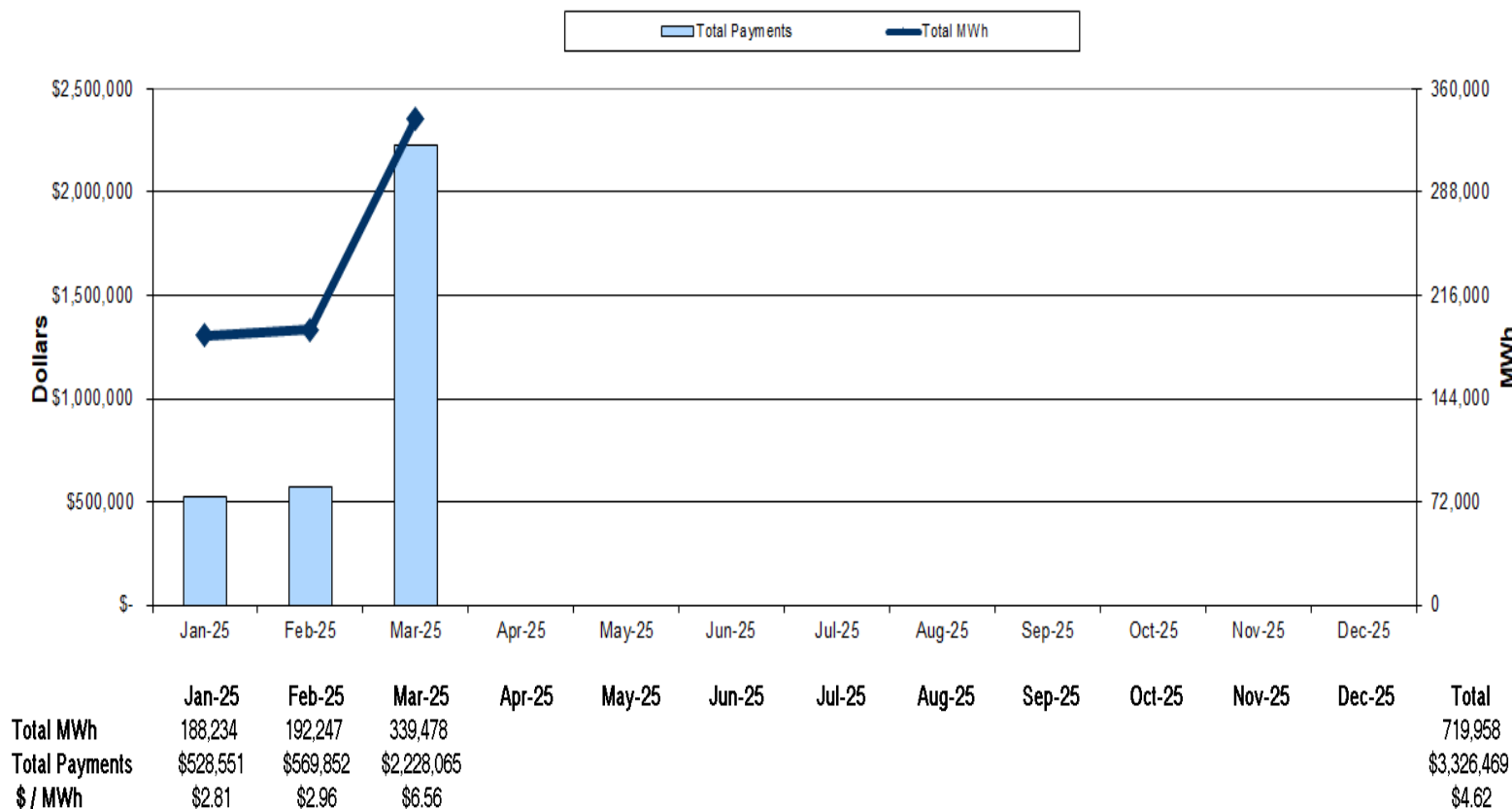
Capability represents total amount that may be offered. Actual offered and cleared volume may be significantly lower and is represented in subsequent figures/tables in report

Figure 28: 2025 PJM Demand Response Confirmed Regulation Registrations Load Reduction Methods


Note: Percent of CSP Reported Load Reduction MWs based on latest month RTO MWs based on Figure 27 for Regulation.

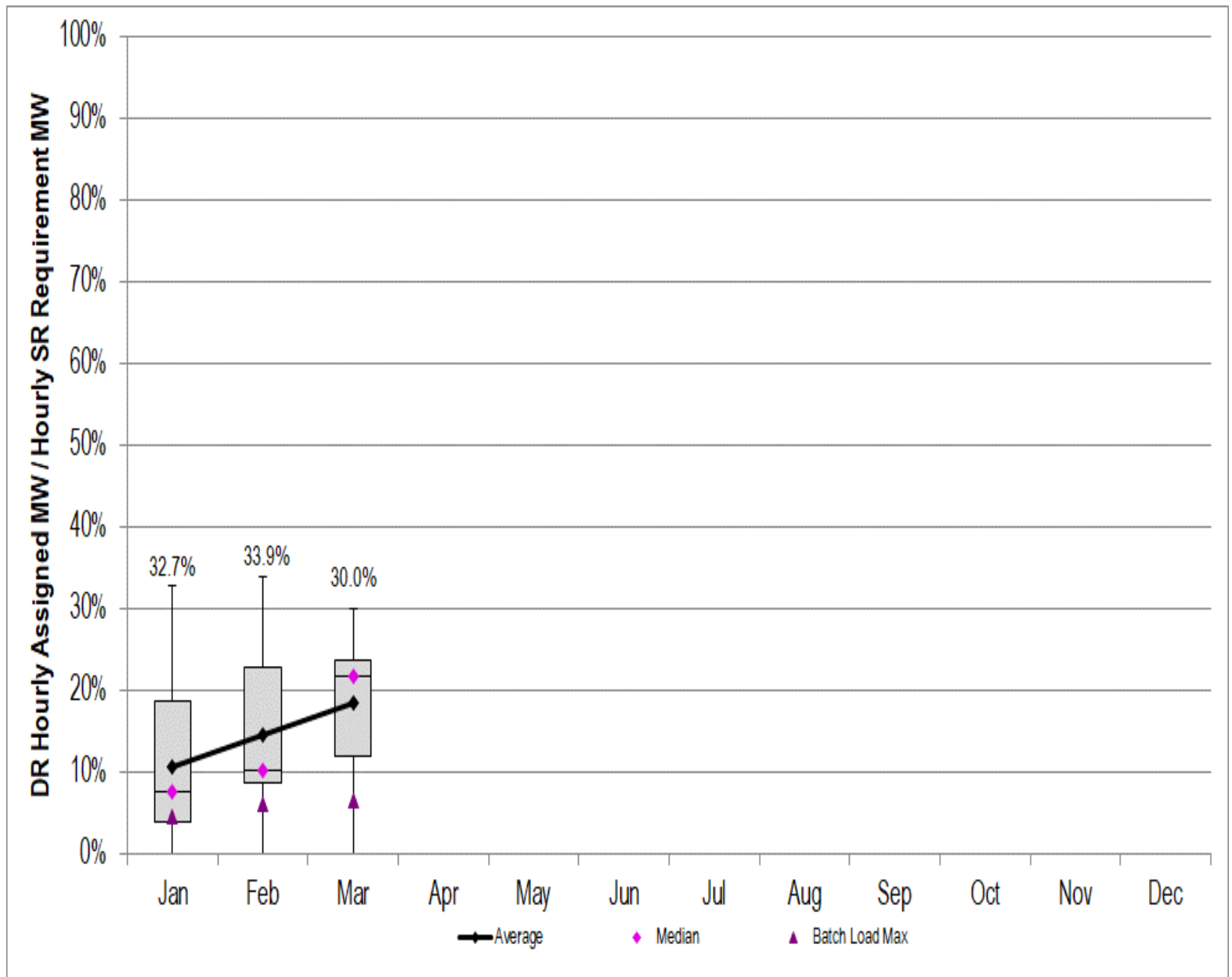
Figure 29: 2025 PJM Demand Response Confirmed Synch Reserve Registrations Load Reduction Methods


Note: Percent of CSP Reported Load Reduction MWs based on latest month RTO MWs based on Figure 27 for Synch Reserves. Plug Load includes reported reductions from Data Centers with Crypto Mining.

Figure 30: 2025 Economic Demand Response Regulation Market Participation

Figure 31: 2025 Economic Demand Response Synchronous Reserve Market Participation


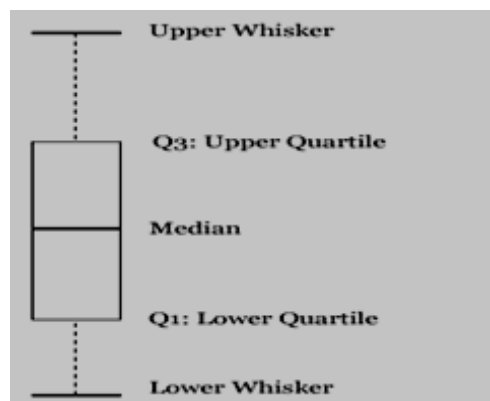
Note: For Figures 30 and 31 above, MWh=sum of the settled MW. Example: 1 MW load available for 12 hours = 12 MWh.

Figure 32: Economic DR Synchronous Reserve Penetration Distribution (Box-plot) for 2025



Notes:

- 1) Percents shown on upper whisker are maximum hourly DR percentage of Total SR Requirement.
- 2) The Box-plot depicts the distribution of DR hourly assigned (as a percentage of the Total requirement) for a month:



The upper whisker is the maximum value

The box top is the Upper Quartile (75%) value

The line inside the box is the median (50%) value

The box bottom is the Lower Quartile (25%) value

The lower whisker is the minimum value