



2024/2025 RPM Base Residual Auction Results

Introduction

This document provides information for PJM stakeholders regarding the results of the 2024/2025 Reliability Pricing Model (RPM) Base Residual Auction (BRA).

In each BRA, PJM seeks to procure a target capacity reserve level for the RTO in a least cost manner while recognizing the following reliability-based constraints on the location and type of capacity that can be committed:

- Internal PJM locational constraints are established by setting up Locational Deliverability Areas (LDAs) with each LDA having a separate target capacity reserve level and a maximum limit on the amount of capacity that it can import from resources located outside of the LDA.
- Total cleared summer-period sell offers must exactly equal total cleared winter-period sell offers across the entire RTO to ensure that seasonal CP sell offers clear to form annual CP commitments.

The auction clearing process commits capacity resources to procure a target capacity reserve level for the RTO in a least-cost manner while recognizing and enforcing these reliability-based constraints. The clearing solution may be required to commit capacity resources out-of-merit order but again in a least-cost manner to ensure that all of these constraints are respected. In those cases where one or more of the constraints results in out-of-merit commitment in the auction solution, resource clearing prices will be reflective of the price of resources selected out of merit order to meet the necessary requirements.

An LDA was modeled in the BRA and had a separate VRR Curve if (1) the LDA has a CETO/CETL margin that is less than 115%; or (2) the LDA had a locational price adder in any of the three immediately preceding BRAs; or (3) the LDA is EMAAC, SWMAAC, and MAAC. An LDA not otherwise qualifying under the above three tests may also be modeled if PJM finds that the LDA is determined to be likely to have a Locational Price Adder based on historic offer price levels or if such LDA is required to achieve an acceptable level of reliability consistent with the Reliability Principles and Standards.

As a result of the above criteria, MAAC, EMAAC, SWMAAC, PSEG, PS-NORTH, DPL-SOUTH, PEPCO, ATSI, ATSI-Cleveland, COMED, BGE, PL, DAY and DEOK were modeled as LDAs in the 2024/2025 RPM Base Residual Auction. The MAAC, EMAAC, DEOK, BGE and DPL-South LDAs were binding constraints in the auction resulting in a Locational Price Adder for these LDAs. The number of constrained LDAs increased from 3 in the 23/24 BRA to 5 in the 24/25 BRA. A Locational Price Adder represents the difference in Resource Clearing Prices for the Capacity Performance product between a resource in a constrained LDA and the immediate higher level LDA. Table 4 contains a summary of the clearing results in the LDAs from the 2024/2025 RPM Base Residual Auction.



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Executive Summary

The 2024/2025 Reliability Pricing Model (RPM) Base Residual Auction (BRA) cleared 139,810 MW of unforced capacity in the RTO from non-energy efficiency resources representing a 21.7% reserve margin. Energy Efficiency (EE) resource are excluded from this calculation because their impact is reflected in a lower load forecast and therefore not used to meet the Reliability Requirement. The reserve margin for the entire RTO, which includes Fixed Resource Requirement (FRR) is 20.4% or 5.7 percentage points higher than the target reserve margin of 14.7%. These results are similar to the 2023/2024 BRA.

Supply offered into the RPM capacity market, excluding EE Resources, declined 2,192 MW from 151,143 MW in the 2023/2024 BRA to 148,946 MW in the 2024/2025 BRA. This is the third BRA in a row where the total Capacity offered from non-EE resources has declined. Further, the number of constrained LDAs increased from 3 constrained LDAs in the 2023/2024 BRA to 5 constrained LDAs in the 2024/2025 BRA. This reflects tighter supply and demand conditions in those locations. The total amount of capacity in RPM that cleared increased 2,607 MW from 144,871 MW in the 2023/2024 BRA to 147,478 MW in the 2024/2025 BRA.

The RTO as a whole failed the Market Structure Test (i.e., the Three-Pivotal Supplier Test), resulting in the application of market power mitigation to all Existing Generation Capacity Resources. Mitigation was applied to a supplier's existing generation resources resulting in utilizing the lesser of the supplier's approved Market Seller Offer Cap for such resource or the supplier's submitted offer price for such resource in the RPM Auction clearing.

Resource Clearing Prices (RCPs) for the 2024/2025 BRA for CP Resources located in the rest of RTO declined from \$34.13/MW-day to \$28.92/MW-Day. The number of constrained LDAs increase from 3 LDAs (MAAC, BGE, DPL-S) to 5 LDAs (MAAC, BGE, DPL-S, EMAAC and DEOK). MAAC prices remained the same at \$49.49 while prices for the other 4 constrained LDAs increased: BGE increased from \$69.95 to \$73, EMAAC increased from \$49.49/MW-Day to \$53.60/MW-Day and DEOK increased from \$34.13/MW-Day to \$96.24/MW-Day. DPL-S increased from \$69.95/MW-Day to \$426.17/MW-Day and cleared at net CONE * 1.5, or point A on the VRR curve, because there was not enough supply to meet the Reliability Requirement.

For the 24/25 BRA, total offered and FRR committed resources was 1,503 MW lower than in the prior BRA. Key changes in offered and FRR committed supply include:

- Decrease in Coal (-2,050 MW), Water/Hydro (-361 MW), DR (-312 MW) and Wind (-212 MW)
- Increase in Solar (+1,301 MW) and Natural Gas (+231 MW)

For the 24/25 BRA, total cleared and FRR committed supply was 1,232 MW higher than in the prior BRA. Key changes in cleared and FRR committed resources include:



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- Decrease in DR (-453 MW), Water/Hydro (-361 MW), Nuclear (-331 MW) and Coal (-284 MW)
- Increase in Natural Gas (+1,580 MW), Solar (+1,308 MW)

The following is a list of new market rules or planning parameter changes that may have impacted the auction results:

- This BRA was re-executed based on FERC Order ER23-729-002 issued 5/6/2024.
- There were no new market rules that became effective for this auction.
- Planning parameters:
 - Net CONE values used to determine the VRR curve were marginally higher (+6.2% to +7.2%) based on the normal escalation process.
 - RTO Reliability Requirement increased by only 236 MW from 131,820 MW to 132,056 MW (or 0.2%) although there were some significant LDA Reliability Requirement changes.

Note: This BRA was conducted under a compressed auction schedule where the auction occurred ~17 months prior to the start of the delivery year. A typical BRA is held more than three years before the start of the delivery year. The prior BRA was conducted under the same compressed auction schedule.



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Table 1 contains a summary of the RTO clearing prices, cleared unforced capacity, and implied cleared reserve margins for the 2007/2008 through 2024/2025 RPM BRAs. The Reserve Margin presented in Table 1 represents the percentage of installed capacity cleared in RPM and committed by FRR entities in excess of the RTO load (including load served under the Fixed Resource Requirement alternative). The reserve margin for the entire RTO is 20.4%, or 5.7 percentage points higher than the target reserve margin of 14.7%, when the Fixed Resource Requirement (FRR) load and resources are considered. The reserve margin for the RTO was only 0.1% higher than the prior BRA.



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Table 1 - RPM Base Residual Auction Resource Clearing Price Results in the RTO

Delivery Year	Auction Results		
	Resource Clearing Price	Cleared UCAP (MW)	Reserve Margin
2007/2008	\$ 40.80	129,409.2	19.1%
2008/2009	\$ 111.92	129,597.6	17.4%
2009/2010	\$ 102.04	132,231.8	17.6%
2010/2011	\$ 174.29	132,190.4	16.4%
2011/2012 ¹	\$ 110.00	132,221.5	17.9%
2012/2013	\$ 16.46	136,143.5	20.5%
2013/2014 ²	\$ 27.73	152,743.3	19.7%
2014/2015 ³	\$ 125.99	149,974.7	18.8%
2015/2016 ⁴	\$ 136.00	164,561.2	19.3%
2016/2017 ⁵	\$ 59.37	169,159.7	20.3%
2017/2018	\$ 120.00	167,003.7	19.7%
2018/2019	\$ 164.77	166,836.9	19.8%
2019/2020	\$ 100.00	167,305.9	22.4%
2020/2021 ⁶	\$ 76.53	165,109.2	23.3%
2021/2022	\$ 140.00	163,627.3	21.5%
2022/2023	\$ 50.00	144,477.3	19.9%
2023/2024	\$ 34.13	144,870.6	20.3%
2024/2025	\$ 28.92	147,477.4	20.4%

1) 2011/2012 BRA was conducted without Duquesne zone load.

2) 2013/2014 BRA includes ATSI zone

3) 2014/2015 BRA includes Duke zone

4) 2015/2016 BRA includes a significant portion of AEP and DEOK zone load previously under the FRR Alternative

5) 2016/2017 BRA includes EKPC zone

6) Beginning 2020/2021 Cleared UCAP (MW) includes Annual and matched Seasonal Capacity Performance sell offers

7) Reserve Margin includes FRR+RPM (Total ICAP/Total Peak-1)



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Resource Clearing Prices (RCPs) for the 2024/2025 BRA for CP Resources located in the rest of RTO declined from \$34.13/MW-day to \$28.92/MW-day. Compared to the 2023/2024 BRA results, the number of constrained LDAs increased from 3 LDAs (MAAC, BGE, DPL-S) to 5 LDAs (MAAC, BGE, DPL-S, EMAAC and DEOK). MAAC prices remained the same at \$49.49/MW-day while price for the other 4 constrained LDAs increased: BGE increased by \$69.95/MW-day to \$73/MW-day, DPL-S increased from \$69.95/MW-day to \$426.17/MW-day, EMAAC increased from \$49.49/MW-day to \$53.60/MW-day and DEOK increased from \$34.13/MW-day to \$96.24/MW-day.

Since the MAAC, EMAAC, BGE, DPL-South and DEOK were constrained LDAs, Capacity Transfer Rights (CTRs) will be allocated to loads in these constrained LDA for the 2024/2025 Delivery Year. CTRs are allocated by load ratio share to all Load Serving Entities (LSEs) in a constrained LDA that has a higher clearing price than the unconstrained region. CTRs serve as a credit back to the LSEs in the constrained LDAs for use of the transmission system to import less expensive capacity into those constrained LDAs and are valued at the difference between the clearing prices of the constrained and unconstrained regions.

Table 2 – Comparison of BRA Clearing Price by Delivery Year by Constrained LDA

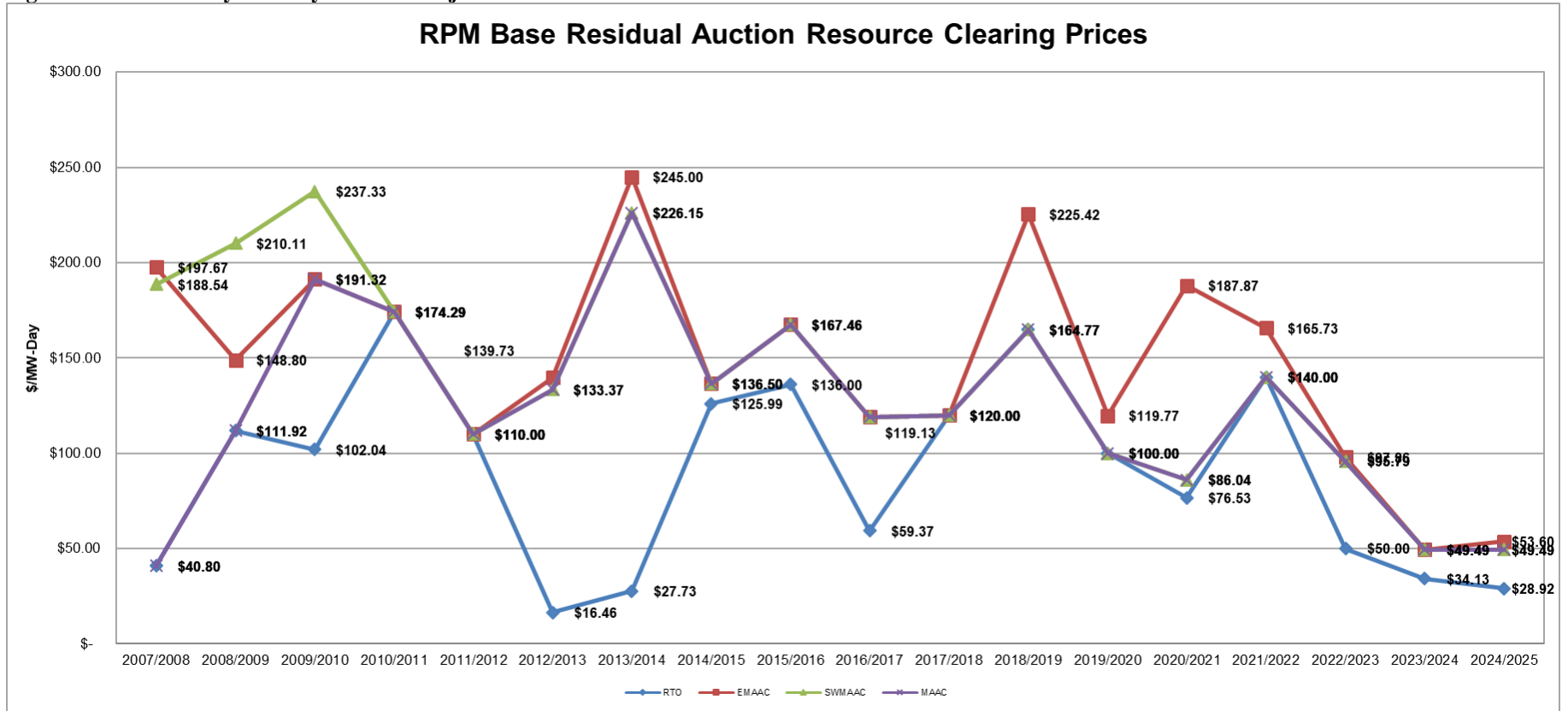
Capacity Type	BRA	BRA Resource Clearing Prices (\$/MW-day)"					
		Rest of RTO	MAAC	EMAAC	DPL-SOUTH	BGE	DEOK
Capacity Performance	2024/2025	\$28.92	\$49.49	\$53.60	\$426.17	\$73.00	\$96.24
Capacity Performance	2023/2024	\$34.13	\$49.49	\$49.49	\$69.95	\$69.95	\$34.13



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Figure 1 represents the trend in BRA Capacity price by Delivery Year for RTO, EMAAC, SWMAAC and MAAC. RTO prices were down from \$34.13/MW-day to \$28.92/MW-day. MAAC prices remained the same and EMAAC prices were up from \$49.49/MW-day to \$53.60/MW-day. SWMAAC was not constrained and had the same prices as MAAC.

Figure 1- BRA Price by Delivery Year for Major LDAs



* 2014/2015 through 2024/2025 Prices reflect the Annual Resource Clearing Prices.



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Table 3 provides the offered and cleared MWs and associated Prices by LDA. This table provides an indication of how much supply did not clear for each LDA. For example, DPL-South had only 0.4 MW of additional supply that did not clear but it was for summer only resources that could not be matched with available Winter MWs and therefore did not clear. EMAAC, DPL-South, PSEG, PSEG-North, and DEOK all had less than 5% MW offered in excess of cleared MW.

Table 3 - Offered and Cleared MWs and associate Prices by LDA

Auction Results	RTO	MAAC	SWMAAC	PEPCO	BGE	EMAAC	DPL-SOUTH	PSEG	PS-NORTH	ATSI	ATSI-CLEVELAND	PPL	COMED	DAY	DEOK
Offered MW (UCAP)*	157,362.7	68,615.8	8,973.1	3,651.1	2,942.1	31,661.6	1,448.9	6,362.3	3,571.6	10,351.3	2,015.5	10,750.3	27,502.8	1,052.9	2,115.9
Cleared MW (UCAP)**	147,477.4	64,199.3	8,468.4	3,416.9	2,671.6	30,681.0	1,448.5	6,111.8	3,470.8	9,716.7	1,885.2	9,997.7	25,152.0	985.4	2,060.0
System Marginal Price	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92
Locational Price Adder***	\$0.00	\$20.57	\$0.00	\$0.00	\$23.51	\$4.11	\$372.57	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$67.32
RCP for Capacity Performance Resources	\$28.92	\$49.49	\$49.49	\$49.49	\$73.00	\$53.60	\$426.17	\$53.60	\$53.60	\$28.92	\$28.92	\$49.49	\$28.92	\$28.92	\$96.24

* Offered MW values include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers

** Cleared MW values include Annual and matched Seasonal Capacity Performance sell offers within the LDA

*** Locational Price Adder is with respect to the immediate parent LDA

As seen in the table below, the 2024/2025 BRA procured 328.5 MW of capacity from new generation and 173.8 MW from uprates to existing or planned generation. The quantity of new generation is significantly down from the 2023/2024 BRA where there was 4,898.9 MW of new generation. The quantity of capacity procured from external Generation Capacity Resources in the 2024/2025 BRA is 1,397.6 MW. All external generation capacity that cleared in the 2024/2025 BRA are Prior Capacity Import Limit (CIL) Exception External Resources¹ that qualify for an exception for the 2024/2025 Delivery Year to satisfy the enhanced pseudo-tie requirements established by FERC Order ER17-1138. The total quantity of DR procured in the 2024/2025 BRA was 7,985.2 MW, and the total quantity of EE procured in the 2024/2025 BRA was 7,667.2 MW.

¹ A Prior CIL Exception Resource is an external Generation Capacity Resource for which (1) a Capacity Market Seller had, prior to May 9, 2017, cleared a Sell Offer in an RPM Auction under the exception provided to the definition of Capacity Import Limit as set forth in Article 1 of the Reliability Assurance Agreement or (2) an FRR Entity committed, prior to May 9, 2017, in an FRR Capacity Plan under the exception provided to the definition of Capacity Import Limit.



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Table 4- Cleared MWs (UCAP) by Type by Delivery Year

BRA Delivery Year	New Generation	Generation Upgrades	Imports	Demand Response	Energy Efficiency
2024/2025	328.5	173.8	1,397.6	7,985.2	7,667.2
2023/2024	3,329.7	404.8	1,396.6	8,096.2	5,471.1
2022/2023	4,843.6	1,210.3	1,558.0	8,811.9	4,810.6
2021/2022	893.0	508.3	4,051.8	11,125.8	2,832.0
2020/2021	2,389.3	434.5	3,997.2	7,820.4	1,710.2
2019/2020	5,373.6	155.6	3,875.9	10,348.0	1,515.1
2018/2019	2,954.3	587.6	4,687.9	11,084.4	1,246.5
2017/2018	5,927.4	339.9	4,525.5	10,974.8	1,338.9
2016/2017	4,281.6	1,181.3	7,482.7	12,408.1	1,117.3
2015/2016	4,898.9	447.4	3,935.3	14,832.8	922.5
2014/2015	415.5	341.1	3,016.5	14,118.4	822.1

*All MW Values are in UCAP Terms

Table 5 contains a summary of the RTO resources for each cleared BRA from 2008/2009 through the 2024/2025 Delivery Years. The summary includes all resources located in the RTO (including FRR Capacity Plans).

A total of 209,800.5 MW of installed capacity was eligible to be offered into the 2024/2025 Base Residual Auction, with 1,617.1 MW from external resources. As illustrated in Table 5, the amount of capacity exports in the 2024/2025 auction increased slightly from that of the previous auction and FRR commitments increased to 34,584.2 MW.

A total of 154,062 MW of Generation and DR capacity was offered into the Base Residual Auction. This is a decrease of 1,792 MW from that which was offered into the 2023/2024 BRA. EE resources are already included in the forecast and therefore do not help meet the reliability requirement. A total of 48,009.3 MW was eligible, but not offered due to either (1) inclusion in an FRR Capacity Plan, (2) export of the resource, (3) having been excused from offering into the auction or (4) are not required to offer into the auction and elected to not offer into the auction. Resources were excused from the must offer requirement generally for the following reasons: approved retirement requests, resources categorically exempt from the Capacity Performance must-offer requirement, resources which received an exemption from the must-offer or Capacity Performance must-offer requirement and excess capacity owned by an FRR entity.



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Table 5 – Total RTO Resources (RPM + FRR) offered vs unoffered by Resource Type

Auction Supply (all values in ICAP)	RTO ¹																
	2008/2009	2009/2010	2010/2011	2011/2012 ²	2012/2013	2013/2014 ³	2014/2015 ⁴	2015/2016 ⁵	2016/2017 ⁶	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025
Internal PJM Capacity	166,037.9	167,026.3	168,457.3	169,241.6	179,791.2	195,633.4	199,375.5	207,559.1	208,098.0	202,477.4	203,300.6	207,579.6	207,555.1	211,625.2	207,339.8	204,006.6	208,183.4
Imports Offered	2,612.0	2,563.2	2,982.4	6,814.2	4,152.4	4,766.1	7,620.2	4,649.7	8,412.2	6,300.9	5,724.6	4,821.4	5,440.5	4,725.0	1,649.1	1,601.2	1,617.1
Total Eligible RPM Capacity	168,649.9	169,589.5	171,439.7	176,055.8	183,943.6	200,399.5	206,995.7	212,208.8	216,510.2	208,778.3	209,025.2	212,401.0	212,995.6	216,350.2	208,988.9	205,607.8	209,800.5
Exports / Delistings	4,205.8	2,240.9	3,378.2	3,389.2	2,783.9	2,624.5	1,230.1	1,218.8	1,218.8	1,223.2	1,313.4	1,318.2	1,319.8	1,319.8	1,525.3	1,518.9	1,522.7
FRR Commitments	24,953.5	25,316.2	26,305.7	25,921.2	26,302.1	25,793.1	33,612.7	15,997.9	15,576.6	15,776.1	15,793.0	15,385.3	13,931.6	13,657.4	33,297.1	33,500.7	34,584.2
Excused	722.0	1,121.9	1,290.7	1,580.0	1,732.2	1,825.7	3,255.2	8,712.9	8,524.0	4,305.3	2,348.4	1,454.5	7,826.4	8,923.8	1,960.0	9,714.6	11,902.4
Total Eligible RPM Capacity: Excused	29,881.3	28,679.0	30,974.6	30,890.4	30,818.2	30,243.3	38,098.0	25,929.6	25,319.4	21,304.6	19,454.8	18,158.0	23,077.8	23,901.0	36,782.4	44,734.2	48,009.3
Remaining Eligible RPM Capacity	138,768.6	140,910.5	140,465.1	145,165.4	153,125.4	170,156.2	168,897.7	186,279.2	191,190.8	187,473.7	189,570.4	194,243.0	189,917.8	192,449.2	172,206.5	160,873.6	161,791.2
Generation Offered	138,076.7	140,003.6	139,529.5	143,568.1	142,957.7	156,894.1	153,048.1	166,127.8	176,145.3	175,329.5	177,592.1	181,866.4	178,807.1	178,823.5	157,872.2	146,571.7	144,741.2
DR Offered	691.9	906.9	935.6	1,597.3	9,535.4	12,528.7	15,043.1	19,243.6	13,932.9	10,855.2	10,772.8	10,859.2	9,047.8	10,911.9	9,677.9	9,282.2	9,321.1
EE Offered	0.0	0.0	0.0	0.0	632.3	733.4	806.5	907.8	1,112.6	1,289.0	1,205.5	1,517.4	2,062.9	2,713.8	4,656.4	5,019.7	7,728.9
Total Eligible RPM Capacity Offered	138,768.6	140,910.5	140,465.1	145,165.4	153,125.4	170,156.2	168,897.7	186,279.2	191,190.8	187,473.7	189,570.4	194,243.0	189,917.8	192,449.2	172,206.5	160,873.6	161,791.2
Total Eligible RPM Capacity Unoffered	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

¹RTO numbers include all LDAs.

²All generation in the Duquesne zone is considered external to PJM for the 2011/2012 BRA.

³2013/2014 includes ATSI zone and generation

⁴2014/2015 includes Duke zone and generation

⁵2015/2016 includes a significant portion of AEP and DEOK zone load previously under the FRR Alternative

⁶2016/2017 includes EKPC zone

Table 6 shows the Generation, DR, and EE Resources Offered and Cleared in the RTO translated into Unforced Capacity (UCAP) MW amounts. Participants' sell offer EFORD values were used to translate the generation installed capacity values into unforced capacity (UCAP) values. DR sell offers and EE sell offers were converted into UCAP using the appropriate Forecast Pool Requirement (FPR) and Demand Resource Factor, when applicable, for the Delivery Year.

Total offered Gen and DR used to meet the reliability requirement declined from 151,143 MW to 148,946 MWs. That is a 2,198 MW decrease in the amount of supply offered into the Capacity Market.



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Table 6 - Capacity Resource offered and cleared by type by Delivery Year

Auction Results	RTO*																
	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025
Generation Offered	131,164.8	132,614.2	132,124.8	136,067.9	134,873.0	147,188.6	144,108.8	157,691.1	168,716.0	166,204.8	166,909.6	172,071.2	171,262.3	171,663.2	152,128.6	141,026.7	138,799.3
DR Offered	715.8	936.8	967.9	1,652.4	9,847.6	12,952.7	15,545.6	19,956.3	14,507.2	11,293.7	11,675.5	11,818.0	9,846.7	11,886.8	10,513.0	10,116.7	10,146.4
EE Offered	-	-	-	-	652.7	756.8	831.9	940.3	1,156.8	1,340.0	1,306.1	1,650.3	2,242.5	2,954.8	5,056.8	5,471.1	8,417.0
Total Offered	131,880.6	133,551.0	133,092.7	137,720.3	145,373.3	160,898.1	160,486.3	178,587.7	184,380.0	178,838.5	179,891.2	185,539.5	183,351.5	186,504.8	167,698.4	156,614.5	157,362.7
Generation Cleared	129,061.4	131,338.9	131,251.5	130,856.6	128,527.4	142,782.0	135,034.2	148,805.9	155,634.3	154,690.0	154,506.0	155,442.8	155,976.5	150,385.0	131,541.6	131,777.4	132,430.6
DR Cleared	536.2	892.9	939.0	1,364.9	7,047.2	9,281.9	14,118.4	14,832.8	12,408.1	10,974.8	11,084.4	10,348.0	7,820.4	11,125.8	8,811.9	8,096.2	7,985.2
EE Cleared	0.0	0.0	0.0	0.0	568.9	679.4	822.1	922.5	1,117.3	1,338.9	1,246.5	1,515.1	1,710.2	2,832.0	4,810.6	5,471.1	7,667.2
Total Cleared	129,597.6	132,231.8	132,190.5	132,221.5	136,143.5	152,743.3	149,974.7	164,561.2	169,159.7	167,003.7	166,836.9	167,305.9	165,109.2	163,627.3	144,477.3	144,870.6	147,477.4
Uncleared	2,283.0	1,319.2	902.2	5,498.8	9,229.8	8,154.8	10,511.6	14,026.5	15,220.3	11,834.8	13,054.3	18,233.6	18,242.3	22,877.5	23,221.1	11,743.9	9,885.3

* RTO numbers include all LDAs

** UCAP calculated using sell offer EFORD for Generation Resources. DR and EE UCAP values include appropriate FPR and DR Factor.

***Starting 2020/2021: Generation, DR, and EE offered and cleared values include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers

***Starting 2020/2021: Total RTO Cleared MW value includes Annual and matched Seasonal Capacity Performance sell offers

Table 7 shows the offered and cleared MWs by Resource type for RPM over the last 4 Delivery Years. Table 8 provides the change in MWs by Delivery Year to illustrate the trend over the last four BRAs. Table 9 shows the offered and cleared MWs by Resource type for RPM plus FRR commitments over the last four Delivery Years. Table 10 provides the change in MWs by Delivery Year to illustrate the trend over the last four BRAs for overall supply to RPM and FRR areas. Table 9 and 10 provide a comprehensive picture of the trend in Supply since FRR participation has changed over the last four BRAs and resources may change from to FRR or RPM. Table 10 indicates that total RPM offered and FRR committed supply is down over the last three BRAs. Since Energy Efficiency is already included in the load forecast it is not used to meet the Reliability Requirement and therefore separated from the Grand Totals in the tables to provide a more accurate picture of the Resources that will be used to meet the Reliability Requirement.

For the 24/25 BRA, total offered and FRR committed resources was 1,384 MW lower than in the prior BRA. Key changes in offered supply include:

- Decrease in Coal (-2,050 MW), Water/Hydro (-237 MW), DR (-318 MW) and Wind (-212 MW)
- Increase in Solar (+1,290 MW) and Natural Gas (+252 MW)

For the 24/25 BRA, total cleared and FRR committed supply was 1,356 MW higher than in the prior BRA. Key changes in cleared and FRR committed resources include:

- Decrease in DR (-458 MW), Water/Hydro (-237 MW), and Nuclear (-331 MW) and Coal (-278 MW)
- Increase in Natural Gas (+1,600 MW), Solar (+1,297 MW)



2024/2025 RPM Base Residual Auction Results

Table 7 - Offered and Cleared MWs by Type for RPM for previous BRAs

Delivery Year Data	2021/2022 Offered UCAP	2021/2022 Cleared UCAP	2022/2023 Offered UCAP	2022/2023 Cleared UCAP	2023/2024 Offered UCAP	2023/2024 Cleared UCAP	2024/2025 Offered UCAP	2024/2025 Cleared UCAP
Coal	44,936	39,022	33,935	27,411	26,968	21,615	25,060	21,478
Distillate Oil (No.2)	3,254	3,155	2,977	2,696	2,684	2,645	2,592	2,490
Gas	77,514	74,814	75,526	69,292	74,552	70,978	73,714	71,489
Nuclear	30,561	19,918	26,855	21,050	26,365	26,365	26,024	25,818
Oil	5,218	3,955	2,419	2,271	1,901	1,820	2,150	1,899
Solar	625	570	2,049	1,512	1,878	1,868	2,768	2,765
Water	6,708	6,229	4,324	4,157	3,677	3,677	3,715	3,715
Wind	1,442	1,417	2,484	1,728	1,486	1,294	1,272	1,272
Battery	-	-	-	-	-	-	-	-
Hybrid	-	-	-	-	-	-	-	-
Other	1,406	1,305	1,077	1,040	1,005	1,005	1,001	1,001
Demand Response	11,887	11,126	10,513	8,812	10,117	8,096	10,146	7,985
Aggregate Resource	-	-	484	386	511	511	503	503
Grand Total (w/o EE)	183,550	161,511	162,642	140,354	151,143	139,874	148,946	140,416
Energy Efficiency	2,955	2,832	5,057	4,811	5,471	5,471	8,417	7,667
Grand Total (w/EE)	186,505	164,343	167,698	145,164	156,615	145,345	157,363	148,083

The table shows the UCAP MW quantities that offered and cleared in the BRA of each DY

Notes:

- Offered and Cleared MW quantities include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers.
- Aggregate Resource category includes aggregates resources of different resource types
- Other = Kerosene, Other Gas, Other Liquid, Other Solid, Wood



2024/2025 RPM Base Residual Auction Results

Table 8 - Change in Offered and Cleared MWs by Type for RPM for previous BRAs

Data	Change in Offered MWs			Change in Cleared MWs		
	2022/2023- 2021/2022	2023/2024- 2022/2023	2024/2025- 2023/2024	2022/2023- 2021/2022	2023/2024- 2022/2023	2024/2025- 2023/2024
Coal	(11,001)	(6,967)	(1,908)	(11,612)	(5,796)	(136)
Distillate Oil (No.2)	(278)	(292)	(92)	(460)	(51)	(155)
Gas	(1,988)	(974)	(838)	(5,522)	1,685	511
Nuclear	(3,706)	(490)	(341)	1,132	5,315	(547)
Oil	(2,799)	(518)	249	(1,684)	(451)	79
Solar	1,424	(171)	890	942	357	897
Water	(2,383)	(647)	37	(2,072)	(480)	37
Wind	1,042	(998)	(214)	311	(434)	(22)
Battery	-	-	-	-	-	-
Hybrid	-	-	-	-	-	-
Other	(330)	(71)	(4)	(265)	(34)	(4)
Demand Response	(1,374)	(396)	30	(2,314)	(716)	(111)
Aggregate Resource	484	27	(7)	386	125	(7)
Grand Total (w/o EE)	(20,908)	(11,498)	(2,198)	(21,157)	(480)	542
Energy Efficiency	2,102	414	2,946	1,979	660	2,196



2024/2025 RPM Base Residual Auction Results

Table 9 - Offered and Cleared MWs by Type for RPM and committed FRR for previous BRAs

Delivery Year	2021/2022	2021/2022	2022/2023	2022/2023	2023/2024	2023/2024	2024/2025	2024/2025
Data	Offered	Cleared	Offered	Cleared	Offered	Cleared	Offered	Cleared
	UCAP	UCAP	UCAP	UCAP	UCAP	UCAP	UCAP	UCAP
Coal	53,444	47,531	45,754	39,230	37,164	31,811	35,114	31,532
Distillate Oil (No.2)	3,254	3,155	3,178	2,897	2,894	2,855	2,776	2,674
Gas	78,863	76,164	85,562	79,329	85,217	81,643	85,469	83,243
Nuclear	32,541	21,898	31,944	26,140	31,960	31,960	31,835	31,629
Oil	5,218	3,955	2,674	2,527	2,350	2,269	2,493	2,242
Solar	644	589	2,633	2,096	2,945	2,935	4,234	4,232
Water	7,239	6,760	6,917	6,749	6,375	6,375	6,137	6,137
Wind	1,551	1,526	2,595	1,839	1,608	1,416	1,396	1,396
Battery	-	-	-	-	16	16	36	36
Hybrid	-	-	-	-	-	-	10	10
Other	1,419	1,318	1,205	1,168	1,185	1,185	1,153	1,153
Demand Response	12,114	11,353	10,604	8,903	10,652	8,631	10,334	8,173
Aggregate Resource	-	-	484	386	511	511	503	503
Grand Total (w/o EE)	196,288	174,249	193,551	171,263	182,875	171,605	181,491	172,961
Energy Efficiency	2,955	2,832	5,057	4,811	5,471	5,471	8,417	7,667
Grand Total (w/EE)	199,243	177,081	198,608	176,073	188,346	177,076	189,908	180,628
The table shows the UCAP MW quantities that offered and cleared in the BRA of each DY plus the UCAP MW committed to FRR Capacity Plans								
Notes:								
- Offered and Cleared MW quantities include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers.								
- Aggregate Resource category includes aggregates resources of different resource types								
- Other = Kerosene, Other Gas, Other Liquid, Other Solid, Wood								



2024/2025 RPM Base Residual Auction Results

Table 10 - Change in Offered and Cleared MWs by Type for RPM and committed FRR for previous BRAs

Data	Change in Offered MWs			Change in Cleared MWs		
	2022/2023- 2021/2022	2023/2024- 2022/2023	2024/2025- 2023/2024	2022/2023- 2021/2022	2023/2024- 2022/2023	2024/2025- 2023/2024
Coal	(7,690)	(8,590)	(2,050)	(8,301)	(7,419)	(278)
Distillate Oil (No.2)	(77)	(283)	(118)	(259)	(42)	(181)
Gas	6,699	(346)	252	3,165	2,314	1,600
Nuclear	(596)	16	(125)	4,242	5,820	(331)
Oil	(2,544)	(325)	143	(1,429)	(258)	(26)
Solar	1,989	311	1,290	1,507	839	1,297
Water	(322)	(542)	(237)	(11)	(374)	(237)
Wind	1,044	(988)	(212)	314	(423)	(20)
Battery	-	16	20	-	16	20
Hybrid	-	-	10	-	-	10
Other	(214)	(20)	(32)	(150)	17	(32)
Demand Response	(1,510)	48	(318)	(2,451)	(272)	(458)
Aggregate Resource	484	27	(7)	386	125	(7)
Grand Total (w/o EE)	(2,738)	(10,676)	(1,384)	(2,987)	343	1,356
Energy Efficiency	2,102	414	2,946	1,979	660	2,196



2024/2025 RPM Base Residual Auction Results

Capacity Import Participation

The quantity of capacity imports cleared in the 2024/2025 BRA were 1,397.6 MW (UCAP). The majority of the imports are from resources located in regions west of the PJM RTO. All external generation capacity that has cleared are Prior Capacity Import Limit (CIL) Exception External Resources that qualify for an exception for the 2024/2025 Delivery Year to satisfy the enhanced pseudo-tie requirements established by FERC Order ER17-1138.

Table 11 - Capacity Imports (UCAP) Offered and Cleared by Region

	External Source Zones					Total
	NORTH	WEST 1	WEST 2	SOUTH 1	SOUTH 2	
Offered MW (UCAP)	220.8	0.0	807.9	238.0	260.4	1,527.1
Cleared MW (UCAP)	220.8	0.0	678.4	238.0	260.4	1,397.6
Resource Clearing Price (\$/MW-day)	\$28.92	\$28.92	\$28.92	\$28.92	\$28.92	

*Offered and Cleared MW quantities include resources that received CIL Exception and those associated with pre-OATT grandfathered transmission. Attachment G of Manual 14B provides a mapping of outside Balancing Authorities to the External Source Zones.



2024/2025 RPM Base Residual Auction Results

The Table below provides a breakdown of the offered and cleared MWs by season by Resource Type. There were 1,081 MW of Summer capability and 605.6 MW of Winter capability offered in the auction. All 605.6 MW of Winter resources were matched with Summer resources to meet the annual Capacity Performance capability requirement.

Table 12 – Offered and Cleared (UCAP) by Resource Type by Season

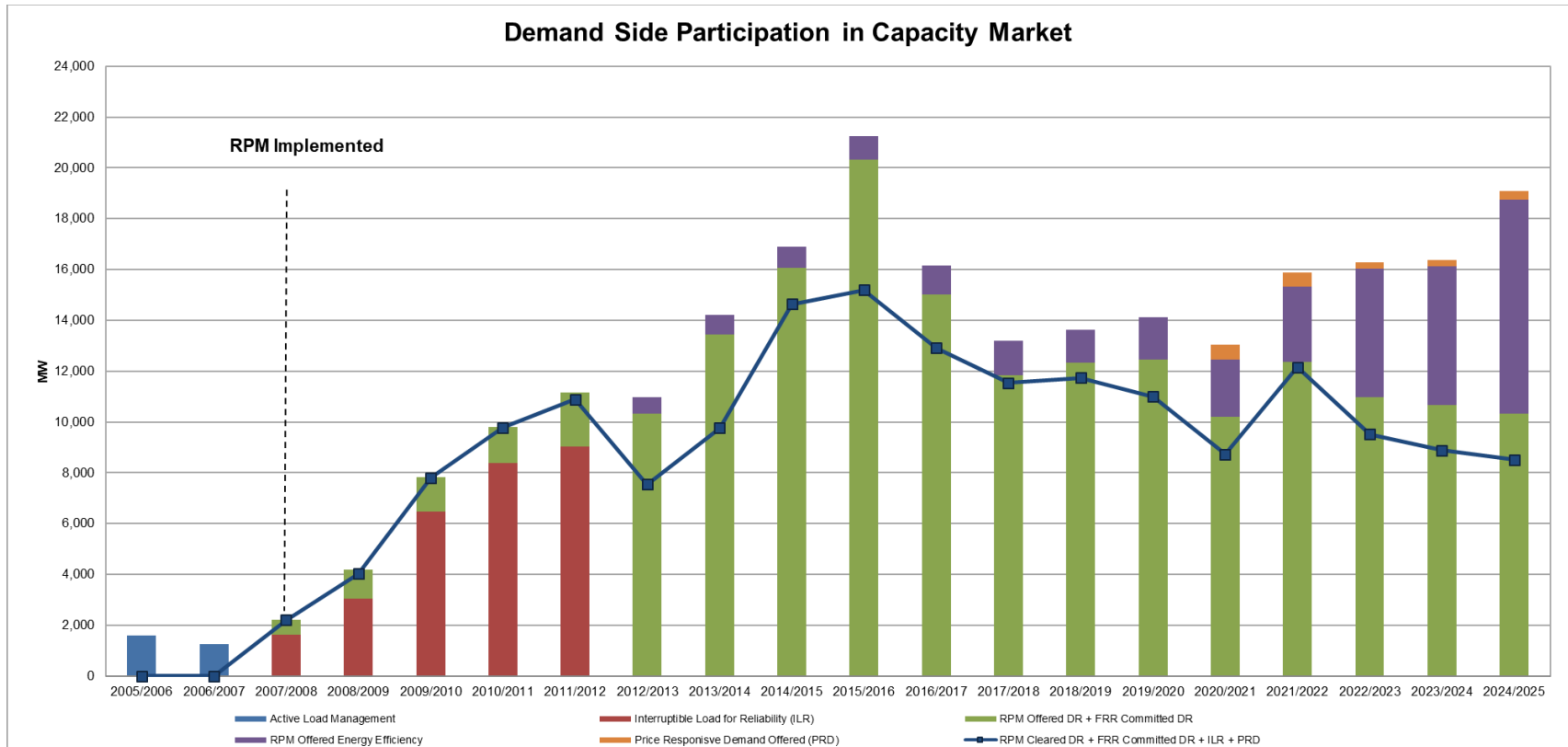
Resource Type	Offered MW (UCAP)			Cleared MW (UCAP)		
	Annual Capacity Performance	Summer Capacity Performance	Winter Capacity Performance	Annual Capacity Performance	Summer Capacity Performance	Winter Capacity Performance
GEN	138,153.2	40.5	605.6	131,786.8	38.2	605.6
DR	9,942.8	203.6	-	7,796.8	188.4	-
EE	7,580.1	836.9	-	7,288.2	379.0	-
Grand Total	155,676.1	1,081.0	605.6	146,871.8	605.6	605.6



2024/2025 RPM Base Residual Auction Results

Figure 2 provides the trend in offered and cleared DR and EE by Delivery Year. While the amount of DR offered and cleared has been moderately down over the last 3 Delivery Years, EE continues to increase and was significantly up in the 2024/2025 BRA. The amount of PRD remains small and is slightly up in the 2024/2025 Delivery Year.

Figure 2 - DR and EE offered and cleared MW by Delivery Year by Type





2024/2025 RPM Base Residual Auction Results

Table 13 provides a breakdown of offered and cleared DR and EE by LDA. COMED cleared the most DR and EE (2,605 MW), followed by AEP (1,894 MW) and then DOM (1,612 MW). In many cases, the amount of DR and EE is correlated to the size of the load in the LDA.

Table 13 - DR and EE offered and cleared by LDA

LDA	Zone	Offered MW (UCAP)*			Cleared MW (UCAP)*		
		DR	EE	Total	DR	EE	Total
EMAAC	AECO	93.8	153.8	247.6	66.8	152.0	218.8
EMAAC/DPL-S	DPL	173.1	208.2	381.3	151.6	202.4	354.0
EMAAC	JCPL	175.1	326.8	501.9	131.8	317.4	449.2
EMAAC	PECO	429.3	615.8	1,045.1	365.4	583.9	949.3
PSEG/PS-N	PSEG	389.0	817.2	1,206.2	285.7	771.4	1,057.1
EMAAC	RECO	3.4	3.2	6.6	2.7	3.2	5.9
EMAAC Sub Total		1,263.7	2,125.0	3,388.7	1,004.0	2,030.3	3,034.3
PEPCO	PEPCO	232.0	421.1	653.1	160.4	398.9	559.3
BGE	BGE	224.1	392.9	617.0	198.1	380.3	578.4
MAAC	METED	258.4	166.3	424.7	217.8	157.1	374.9
MAAC	PENELEC	347.6	148.0	495.6	313.9	140.6	454.5
PPL	PPL	658.4	422.0	1,080.4	603.4	391.4	994.8
MAAC** Sub Total		2,984.2	3,675.3	6,659.5	2,497.6	3,498.6	5,996.2
RTO	AEP	1,590.1	883.4	2,473.5	1,102.8	790.8	1,893.6
RTO	APS	861.8	407.9	1,269.7	635.1	375.8	1,010.9
ATSI/ATSI-C	ATSI	953.5	689.1	1,642.6	674.6	587.3	1,261.9
COMED	COMED	1,899.8	1,284.7	3,184.5	1,542.0	1,063.4	2,605.4
DAY	DAY	233.5	146.1	379.6	191.1	128.3	319.4
DEOK	DEOK	231.2	202.2	433.4	221.9	188.1	410.0
RTO	DOM	892.4	977.2	1,869.6	710.5	901.1	1,611.6
RTO	DUQ	210.9	151.1	362.0	120.6	133.8	254.4
RTO	EKPC	289.0	-	289.0	289.0	-	289.0
Grand Total		10,146.4	8,417.0	18,563.4	7,985.2	7,667.2	15,652.4



2024/2025 RPM Base Residual Auction Results

Price Responsive Demand Participation

332 MW (UCAP) of PRD was elected and committed in the 2024/2025 BRA. PRD is provided by a PJM Member that represents retail customers having the ability to predictably reduce consumption in response to changing wholesale prices. In the PJM Capacity Market, a PRD Provider may voluntarily make a firm commitment of the quantity of PRD that will reduce its consumption in response to real time energy prices during a Delivery Year. A PRD Provider that is committing PRD in a BRA must also submit a PRD election in the Capacity Exchange system which indicates the Nominal PRD Value in MWs that the PRD Provider is willing to commit at different reservation prices (\$/MW-day). The VRR curve of the RTO and each affected LDA is shifted leftward along the horizontal axis by the UCAP MW quantity of elected PRD where the leftward shift occurs only for the portion of the VRR Curve at or above the PRD Reservation price. The Planning Parameters includes a breakdown of elected PRD in ICAP which can be converted to UCAP by taking $ICAP * FPR$. The breakdown of PRD UCAP that elected and committed is: 174 MW in the BGE LDA, 120 MW in the PEPCO LDA, and 24 MW in the EMAAC LDA (with 14 MW located in the DPL-South LDA). The VRR Curve of the RTO and each affected LDA is shifted leftward along the horizontal axis by the UCAP MW value of these quantities at the PRD Reservation Price. Once committed in a BRA, a PRD commitment cannot be replaced; the commitment can only be satisfied through the registration of price response load in the DR Hub system prior to or during the Delivery Year.