2020/2021 RPM Base Residual Auction Results

Executive Summary

The 2020/2021 Reliability Pricing Model (RPM) Base Residual Auction (BRA) cleared 165,109.2 MW of unforced capacity in the RTO representing a 23.9% reserve margin. Accounting for load and resource commitments under the Fixed Resource Requirement (FRR), the reserve margin for the entire RTO for the 2020/2021 Delivery Year as procured in the BRA is 23.3%, or 6.7% higher than the target reserve margin of 16.6%. This reserve margin was achieved at clearing prices that are between approximately 26% to 66% of Net CONE, depending upon the Locational Deliverability Area (LDA), while attracting 2,350 MW of new combined cycle gas resources.

The 2020/2021 BRA is the first where PJM has procured 100% Capacity Performance ("CP") Resources. CP Resources must be capable of sustained, predictable operation, and are expected to be available and capable of providing energy and reserves when needed throughout the entire Delivery Year. Also, the 2020/2021 BRA was conducted under the provisions of PJM's Enhanced Aggregation filing (Docket ER17-367-000 & 001) which was accepted by FERC on March 21, 2017.

2020/2021 BRA Resource Clearing Prices

Resource Clearing Prices (RCPs) for the 2020/2021 BRA are shown in Table 1 below. The RCP for CP Resources located in the rest of RTO is $76.53/MW-day. The MAAC LDA, EMAAC LDA, ComEd LDA and DEOK LDA were constrained LDAs in the 2020/2021 BRA with locational price adders of $9.51/MW-day, $101.83/MW-day, $111.59/MW-day and $53.47/MW-day, respectively, for all resources located in those LDAs. For comparison purposes, the RCP for CP Resources located in the rest of RTO and MAAC in the 2019/2020 BRA was $100.00/MW-day. For the same year, the RCP for CP Resources in the EMAAC LDA was $119.77/MW-day and the RCP for CP Resources in the COMED LDA was $202.77 /MW-day in the 2019/2020 BRA. The DEOK LDA was not modeled in the 2019/20 BRA and cleared with the rest of RTO.

	2020/2021 BRA Resource Clearing Prices ($/MW-day)				
Capacity Type	Rest of RTO	MAAC	EMAAC	COMED	DEOK
Capacity Performance	$76.53	$86.04	$187.87	$188.12	$130.00

2020/2021 BRA Cleared Capacity Resources

As seen in the table below, the 2020/2021 BRA procured 2,389.3 MW of capacity from new generation and 434.5 MW from uprates to existing or planned generation. The quantity of capacity procured from external Generation Capacity Resources in the 2020/2021 BRA is 3,997.2 MW which is an increase of 121.3 MW from that procured in last year's BRA. All external generation capacity that has cleared in the 2020/21 BRA has the requirements for the Capacity Import Limit (CIL) exception which include (1) long-term firm transmission service has been confirmed on the complete transmission path from the external resource into PJM for the relevant Delivery Year; (2) the external resource meets or will meet prior to the Delivery Year all applicable requirements to be pseudo-tied; and (3) a separate written commitment has been executed to offer all unforced capacity of the external resource into RPM Auctions under the same terms, and subject to the same conditions and exceptions, as set forth for internal generation resources by section 6.6 of Attachment DD of PJM Tariff. The total quantity of DR procured in the 2020/2021 BRA is 7,820.4 MW which is a decrease of 2,527.6 MW from that procured in last year's BRA; and, the total quantity of EE procured in the 2020/2021 BRA is 1,710.2 MW, which is an increase of 195.1 MW from that procured in last year's BRA.

Megawatts of Unforced Capacity Procured by Type from the 2014/2015 BRA to the 2020/2021 BRA

Delivery Year	New Generation	Generation Uprates	Imports	Demand Response	Energy Efficiency
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

2020/2021 RPM Base Residual Auction Results

Introduction

This document provides information for PJM stakeholders regarding the results of the 2020/2021 Reliability Pricing Model (RPM) Base Residual Auction (BRA). The 2020/2021 BRA opened on May 10, 2017, and the results were posted on May 23, 2017.

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.

This document begins with a high-level summary of the BRA results followed by sections containing detailed descriptions of the 2020/2021 BRA results and a discussion of the results in the context of the ten previous BRAs.

Summary of Results

The 2020/2021 Reliability Pricing Model (RPM) Base Residual Auction (BRA) cleared 165,109.2 MW of unforced capacity in the RTO representing a 23.9% reserve margin. The reserve margin for the entire RTO is 23.3%, or 6.7% higher than the target reserve margin of 16.6%, when the Fixed Resource Requirement (FRR) load and resources are considered.

Resource Clearing Prices (RCPs) for the 2020/2021 BRA are shown in Table 1 below. The RCP for CP Resources located in the rest of RTO is $76.53/MW-day. The MAAC LDA, EMAAC LDA, ComEd LDA and DEOK LDA were constrained LDAs in the 2020/2021 BRA with locational price adders of $9.51/MW-day, $101.83/MW-day, $111.59/MW-day and $53.47/MW-day, respectively, for all resources located in those LDAs. For comparison purposes, the RCP for CP Resources located in the rest of RTO

and MAAC in the 2019/2020 BRA was $100.00/MW-day. The RCP for CP Resources in the EMAAC LDA was $119.77/MW-day and the RCP for CP Resources in the COMED LDA was $202.77 /MW-day in the 2019/2020 BRA. The DEOK LDA was not modeled in the 2019/20 BRA and cleared at the RTO RCP.

The total quantity of new Generation Capacity Resources offered into the auction was 3,143.5 MW (UCAP) comprised of 2,536.6 MW (UCAP) of new generation units and 606.9 MW (UCAP) of uprates to existing generation units. The quantity of new Generation Capacity Resources cleared was 2,823.8 MW (UCAP) comprised of 2,389.3 MW (UCAP) from new generation units and 434.5 MW from uprates to existing generation units.

The quantity of capacity procured from external Generation Capacity Resources in the 2020/2021 BRA is 3,997.2 MW which is an increase of 121.3 MW from that procured in last year's BRA. All external generation capacity that has cleared in the 2020/2021 BRA has met the requirements for a CIL exception. These requirements help to ensure that external resources offering into the RPM auction have reasonable expectation of physically delivering on any RPM commitment and have high likelihood of being available for PJM when needed.

The total quantity of DR procured in the 2020/2021 BRA is 7,820.4 MW which is a decrease of 2,527.6 MW from that procured in last year's BRA; and, the total quantity of EE procured in the 2020/2021 BRA is 1,710.2 MW which is an increase of 195.1 MW from that procured in last year's 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 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.

2020/2021 RPM Base Residual Auction Results

All Generation Capacity Resources (including uprates to existing resources) of 20 MW or greater that are based on combustion turbine, combined cycle and integrated gasification combined cycle technologies that have not cleared an RPM Auction prior to February 1, 2013 are subject to the Minimum Offer Price Rule (MOPR). External Generation Capacity Resources meeting the above criteria and that have entered commercial operation on or after January 1, 2013 and that require sufficient transmission investment for delivery into PJM are also subject to MOPR. To avoid application of the MOPR, Capacity Market Sellers may request exemption through either a Competitive Entry Exemption request, Self-Supply Exemption request or a Unit-Specific Exemption request. The table below shows the requested, granted and cleared aggregate quantity (in ICAP MW) of each exemption type received and processed by PJM. While there were over 12,000 MW of MOPR exemption requests, making a request does not obligate a resource to offer into the BRA.

LDA	Exemption Type	Requested Quantity (ICAP MW)	Granted Quantity (ICAP MW)	Cleared Quantity (ICAP MW)
RTO	Competitive Entry	12,161.0	12,161.0	2,675.6
RTO	Self-Supply	0.0	0.0	0.0
RTO	Unit-Specific	0.0	0.0	0.0
Total		**12,161.0**	**12,161.0**	**2,675.6**

A further discussion of the 2020/2021 BRA results and additional information regarding the 2020/2021 RPM BRA are detailed in the body of this report. The discussion also provides a comparison of the 2020/2021 auction results to the results from the 2007/2008 through 2019/2020 RPM Auctions.

2020/2021 RPM Base Residual Auction Results

2020/2021 Base Residual Auction Results Discussion

Table 1 contains a summary of the RTO clearing prices, cleared unforced capacity, and implied cleared reserve margins resulting from the 2020/2021 RPM BRA in comparison to those from 2007/2008 through 2019/2020 RPM BRAs.

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

	RTO													
Auction Results	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012[1]	2012/2013	2013/2014[2]	2014/2015[3]	2015/2016[4]	2016/2017[5]	2017/2018	2018/2019	2019/2020	2020/2021[6]
Resource Clearing Price ($/MW-day)	$40.80	$111.92	$102.04	$174.29	$110.00	$16.46	$27.73	$125.99	$136.00	$59.37	$120.00	$164.77	$100.00	$76.53
Cleared UCAP (MW)	129,409.2	129,597.6	132,231.8	132,190.4	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
Reserve Margin	19.1%	17.4%	17.6%	16.4%	17.9%	20.5%	19.7%	18.8%	19.3%	20.3%	19.7%	19.8%	22.4%	23.3%

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

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 2020/2021 RPM BRA cleared 165,109.2 MW of unforced capacity in the RTO representing a 23.9% reserve margin. The reserve margin for the entire RTO is 23.3%, or 6.7% higher than the target reserve margin of 16.6%, when the Fixed Resource Requirement (FRR) load and resources are considered.

New Generation Resource Participation

The total quantity of new Generation Capacity Resources offered into the auction was 3,143.5 MW (UCAP) comprised of 2,536.6 MW of new generation units and 606.9 MW of uprates to existing generation units. The quantity of new Generation Capacity Resources cleared was 2,823.8 MW (UCAP) comprised of 2,389.3 MW (UCAP) from new generation units, predominantly natural gas combined cycle, and 434.5 MW from uprates to existing generation units.

Table 2A shows the breakdown, by major LDA, of capacity in UCAP terms of new units and uprates at existing units offered in the auction and capacity actually clearing in the auction. Ninety percent of the new generation capacity that offered into the 2020/2021BRA cleared the auction.

Table 2A – Offered and Cleared New Generation Capacity by LDA (in UCAP MW)

	Offered			Cleared ****		
LDA	Uprate	New Unit	Total	Uprate	New Unit	Total
EMAAC	199.7	42.8	**242.5**	86.1	7.9	**94.0**
MAAC **	287.8	1,042.8	**1,330.6**	174.2	1,439.0	**1,613.2**
Total RTO ***	606.9	2,536.6	**3,143.5**	434.5	2,389.3	**2,823.8**

* All MW Values are in UCAP Terms

** MAAC includes EMAAC

*** RTO includes MAAC

**** Cleared MW values may include new units that have offered in a prior BRA and not cleared

Capacity Import Participation

The quantity of capacity imports cleared in the 2020/2021 BRA were 3,997.2 MW (UCAP) which represents an increase of 121.3 MW from the imports that cleared in the 2019/2020 BRA. The majority of the imports are from resources located in regions west of the PJM RTO. All external generation capacity that has cleared in the 2020/21 BRA has met the requirements for a CIL exception.

Table 2B – Offered and Cleared Capacity Imports (in UCAP MW)

	External Source Zones					
Imports *	NORTH	WEST 1	WEST 2	SOUTH 1	SOUTH 2	Total
Offered MW (UCAP)	214.1	1,219.6	2,144.5	804.2	579.4	**4,961.8**
Cleared MW (UCAP)	214.1	1,130.1	1,327.2	746.4	579.4	**3,997.2**

* Offered and Cleared MW quantities include resources that met the requirements for a 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.

Demand Resource Participation

The total quantity of DR offered into the 2020/2021 BRA was 9,846.7 MW (UCAP), representing a decrease of 16.7% from the DR that offered into the 2019/2020 BRA. Of the 9,846.7 MW of total DR that offered in this auction, 7,820.4 MW cleared. The cleared DR is 2,527.6 MW less than that which cleared in the 2019/2020 BRA. Of the 7,820.4 MW of DR cleared in the 2020/2021 BRA, 7,531.5 MW were cleared as the Annual Capacity Performance Product and 288.9 MW were cleared as the summer seasonal Capacity

Performance product. Table 3A contains a comparison of the DR Offered and Cleared in 2019/2020 BRA & 2020/2021 BRA represented in UCAP.

Energy Efficiency Resource Participation

An EE resource is a project that involves the installation of more efficient devices/equipment or the implementation of more efficient processes/systems exceeding then-current building codes, appliance standards, or other relevant standards at the time of installation as known at the time of commitment. The EE resource must achieve a permanent, continuous reduction in electric energy consumption (during the defined EE performance hours) that is not reflected in the peak load forecast used for the BRA for the Delivery Year for which the EE resource is proposed. The EE resource must be fully implemented at all times during the Delivery Year, without any requirement of notice, dispatch, or operator intervention. Of the 2,242.5 MW of energy efficiency that offered into the 2020/2021 BRA, 1,710.2 MW of EE resources cleared in the auction. Of the 1,710.2 MW of EE Resources cleared in the 2020/2021 BRA, 1,607.4 MW was cleared as the Annual Capacity Performance Product and 102.8 MW were cleared as the summer seasonal Capacity Performance product.

Table 3B contains a summary of the DR and EE resources that offered and cleared by zone in the 2020/2021 BRA. Approximately 79.4% of the DR and 76.3% of the EE resources that were offered into the BRA cleared.

Figure 1 illustrates the demand side participation in the PJM Capacity Market from 2005/2006 Delivery Year to the 2020/2021 Delivery Year. Demand side participation includes active load management (ALM) prior to 2007/2008 Delivery Year, Interruptible Load for Reliability (ILR) and DR offered into each BRA and nominated in FRR Plans, and EE resources starting with the 2012/2013 Delivery Year. The demand side participation in the capacity market has increased dramatically since the inception of RPM in the 2007/2008 Delivery Year through the 2015/2016 BRA, but as shown in Figure 1, total demand side participation and cleared resources for the 2020/2021 BRA have fallen below the levels seen in the 2014/2015 BRA.

2020/2021 RPM Base Residual Auction Results

Table 3A – Comparison of Demand Resources Offered and Cleared in 2019/2020 BRA & 2020/2021 BRA (in UCAP MW)

		Offered MW (UCAP)			Cleared MW (UCAP)		
LDA	Zone	2019/2020	2020/2021 *	Increase in Offered MW	2019/2020	2020/2021 *	Increase in Cleared MW
EMAAC	AECO	153.8	72.5	**(81.3)**	145.7	62.8	**(82.9)**
EMAAC/DPL-S	DPL	397.9	330.0	**(67.9)**	371.6	213.4	**(158.2)**
EMAAC	JCPL	231.2	160.1	**(71.1)**	200.8	143.9	**(56.9)**
EMAAC	PECO	565.1	408.3	**(156.8)**	527.4	363.3	**(164.1)**
PSEG/PS-N	PSEG	427.8	353.5	**(74.3)**	380.7	327.7	**(53.0)**
EMAAC	RECO	10.3	3.8	**(6.5)**	10.3	3.7	**(6.6)**
EMAAC Sub Total		**1,786.1**	**1,328.2**	**(457.9)**	**1,636.5**	**1,114.8**	**(521.7)**
PEPCO	PEPCO	570.4	346.7	**(223.7)**	483.3	211.9	**(271.4)**
BGE	BGE	729.3	430.5	**(298.8)**	256.4	246.5	**(9.9)**
MAAC	METED	379.8	294.0	**(85.8)**	321.7	241.8	**(79.9)**
MAAC	PENELEC	392.0	356.6	**(35.4)**	339.4	304.1	**(35.3)**
PPL	PPL	815.6	693.5	**(122.1)**	739.8	579.9	**(159.9)**
MAAC Sub Total**		**4,673.2**	**3,449.5**	**(1,223.7)**	**3,777.1**	**2,699.0**	**(1,078.1)**
RTO	AEP	1,603.1	1,408.5	**(194.6)**	1,416.1	1,010.5	**(405.6)**
RTO	APS	1,039.4	933.2	**(106.2)**	926.0	709.8	**(216.2)**
ATSI/ATSI-C	ATSI	978.0	815.8	**(162.2)**	897.6	688.7	**(208.9)**
COMED	COMED	1,792.0	1,794.4	**2.4**	1,757.4	1,512.9	**(244.5)**
DAY	DAY	237.6	212.4	**(25.2)**	219.8	164.6	**(55.2)**
DEOK	DEOK	248.8	200.8	**(48.0)**	236.7	152.8	**(83.9)**
RTO	DOM	816.8	700.2	**(116.6)**	729.7	585.3	**(144.4)**
RTO	DUQ	286.8	192.6	**(94.2)**	247.2	159.9	**(87.3)**
RTO	EKPC	142.3	139.3	**(3.0)**	140.4	136.9	**(3.5)**
Grand Total		**11,818.0**	**9,846.7**	**(1,971.3)**	**10,348.0**	**7,820.4**	**(2,527.6)**

* 2020/2021 MW values include both Annual and Summer-Period Capacity Performance DR

** MAAC sub-total includes all MAAC Zones

2020/2021 RPM Base Residual Auction Results

Table 3B – Comparison of Demand Resources and Energy Efficiency Resources Offered and Cleared in the 2020/2021 BRA (in UCAP MW)

		Offered MW (UCAP)			Cleared MW (UCAP)		
LDA	**Zone**	**DR**	**EE**	**Total**	**DR**	**EE**	**Total**
EMAAC	AECO	72.5	31.6	**104.1**	62.8	27.2	**90.0**
EMAAC/DPL-S	DPL	330.0	57.9	**387.9**	213.4	47.7	**261.1**
EMAAC	JCPL	160.1	52.5	**212.6**	143.9	47.9	**191.8**
EMAAC	PECO	408.3	82.3	**490.6**	363.3	71.4	**434.7**
PSEG/PS-N	PSEG	353.5	112.6	**466.1**	327.7	93.3	**421.0**
EMAAC	RECO	3.8	6.4	**10.2**	3.7	5.6	**9.3**
EMAAC Sub Total		**1,328.2**	**343.3**	**1,671.5**	**1,114.8**	**293.1**	**1,407.9**
PEPCO	PEPCO	346.7	99.9	**446.6**	211.9	66.8	**278.7**
BGE	BGE	430.5	156.6	**587.1**	246.5	125.1	**371.6**
MAAC	METED	294.0	33.9	**327.9**	241.8	14.9	**256.7**
MAAC	PENELEC	356.6	28.1	**384.7**	304.1	10.6	**314.7**
PPL	PPL	693.5	59.6	**753.1**	579.9	34.5	**614.4**
MAAC Sub Total**		**3,449.5**	**721.4**	**4,170.9**	**2,699.0**	**545.0**	**3,244.0**
RTO	AEP	1,408.5	168.9	**1,577.4**	1,010.5	110.2	**1,120.7**
RTO	APS	933.2	55.5	**988.7**	709.8	36.8	**746.6**
ATSI/ATSI-C	ATSI	815.8	52.7	**868.5**	688.7	33.2	**721.9**
COMED	COMED	1,794.4	808.1	**2,602.5**	1,512.9	701.9	**2,214.8**
DAY	DAY	212.4	54.3	**266.7**	164.6	33.1	**197.7**
DEOK	DEOK	200.8	67.4	**268.2**	152.8	65.8	**218.6**
RTO	DOM	700.2	274.8	**975.0**	585.3	168.9	**754.2**
RTO	DUQ	192.6	30.0	**222.6**	159.9	12.3	**172.2**
RTO	EKPC	139.3	9.4	**148.7**	136.9	3.0	**139.9**
Grand Total		**9,846.7**	**2,242.5**	**12,089.2**	**7,820.4**	**1,710.2**	**9,530.6**

* MW values include both Annual and Summer-Period Capacity Performance DR and EE

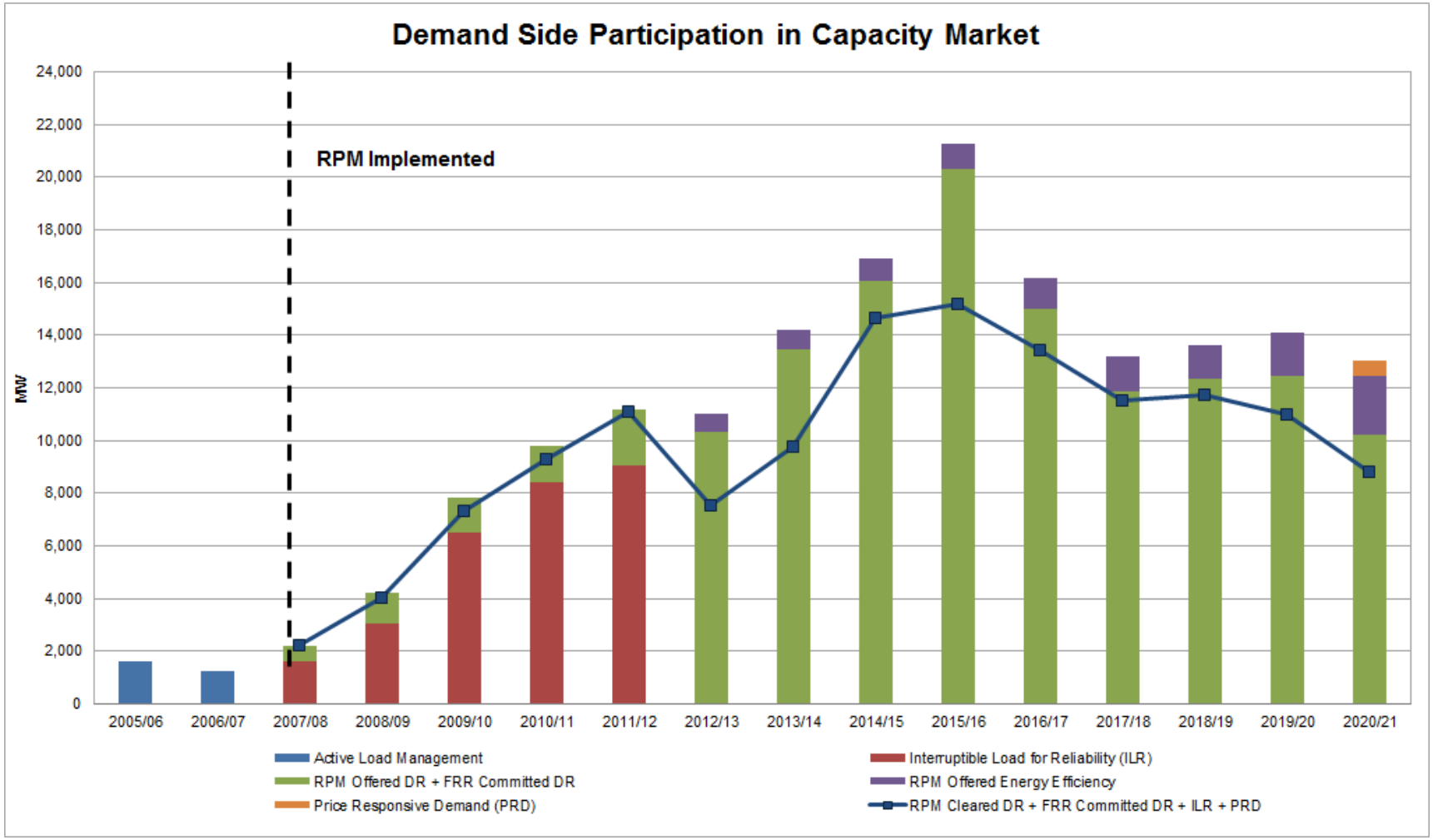
** MAAC sub-total includes all MAAC Zones

2020/2021 RPM Base Residual Auction Results

Table 3C – Breakdown of Annual and Seasonal Capacity Performance Resources by Resource Type and Season that Offered and Cleared in the 2020/2021 BRA (in UCAP MW)

	Offered MW (UCAP)			Cleared MW (UCAP)		
Resource Type	Annual	Summer	Winter	Annual	Summer	Winter
GEN	170,591.7	184.7	485.9	155,572.4	6.2	397.9
DR	8,367.2	1,479.5	-	7,531.5	288.9	-
EE	1,839.0	403.5	-	1,607.4	102.8	-
Total	**180,797.9**	**2,067.7**	**485.9**	**164,711.3**	**397.9**	**397.9**

Figure 1 – Demand Side Participation in the PJM Capacity Market



Renewable Resource Participation

887.7 MW of wind resources were offered into and cleared the 2020/2021 BRA as compared to 969 MW of wind resources that offered into and cleared the 2019/2020 BRA. Of the 887.7 MW of wind resources cleared in the 2020/2021 BRA, 504.3 MW were cleared as the Annual Capacity Performance Product and 383.4 MW were cleared as the winter seasonal Capacity Performance product. The capacity factor applied to wind resources is typically 13%, meaning that for every 100 MW of wind energy, 13 MW are eligible to meet capacity requirements. The 887.7 MW of cleared wind capacity translates to approximately 6,828.5 MW of wind energy nameplate capability that is expected to be available in the 2020/2021 Delivery Year.

125.3 MW of solar resources were offered into and cleared the 2020/2021 BRA as compared to 335 MW of solar resources that offered into and cleared the 2019/2020 BRA. Of the 125.3 MW of solar resources cleared in the 2020/2021 BRA, 119.1 MW were cleared as the Annual Capacity Performance Product and 6.2 MW were cleared as the summer seasonal Capacity Performance product. The capacity factor applied to solar resources is typically 38%, meaning that for every 100 MW of solar energy, 38 MW are eligible to meet capacity requirements. The 125.3 MW of cleared solar capacity translates to approximately 329.7 MW of nameplate solar energy capability that is expected to be available in the 2020/2021 Delivery Year.

Price Responsive Demand Participation

PRD participated for the first time in the 2020/2021 BRA. A total Nominal PRD Value of 558 MW was elected and committed in the 2020/2021 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 price during a Delivery Year. A PRD Provider that is committing PRD in a BRA must also submit a PRD election in the eRPM 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. As shown in the 2020/2021 Planning Parameters, 558 MW of PRD across the RTO has elected to participate in the 2020/2021 BRA: 330 MW in the BGE LDA, 170 MW in the PEPCO LDA, and 58 MW in the EMAAC LDA (with 23 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.

LDA Results

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 2020/2021 RPM Base Residual Auction. The MAAC, EMAAC, ComEd and DEOK LDAs were binding constraints in the auction resulting in a Locational Price Adder for these LDAs. 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 2020/2021 RPM Base Residual Auction.

Table 4 –RPM Base Residual Auction Clearing Results in the LDAs

Auction Results	RTO	MAAC	SWMAAC	PEPCO	BGE	EMAAC	DPL-SOUTH	PSEG	PS-NORTH	ATSI	ATSI-CLEVELAND	PPL	COMED	DAY	DEOK
Offered MW (UCAP) *	183,351.5	72,972.7	12,895.4	6,941.1	3,543.3	31,045.0	1,687.9	5,699.5	3,359.1	11,705.2	2,467.4	10,929.7	27,436.8	1,669.2	3,166.7
Cleared MW (UCAP) **	165,109.2	65,817.9	10,354.4	5,918.6	2,296.9	29,608.2	1,647.2	5,097.2	2,975.4	9,925.1	1,857.9	10,345.0	23,960.3	1,527.1	2,430.3
System Marginal Price	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53	$76.53
Locational Price Adder ***	-	$9.51	-	-	-	$101.83	-	-	-	-	-	-	$111.59	-	$53.47
Resource Clearing Price	$76.53	$86.04	$86.04	$86.04	$86.04	$187.87	$187.87	$187.87	$187.87	$76.53	$76.53	$86.04	$188.12	$76.53	$130.00

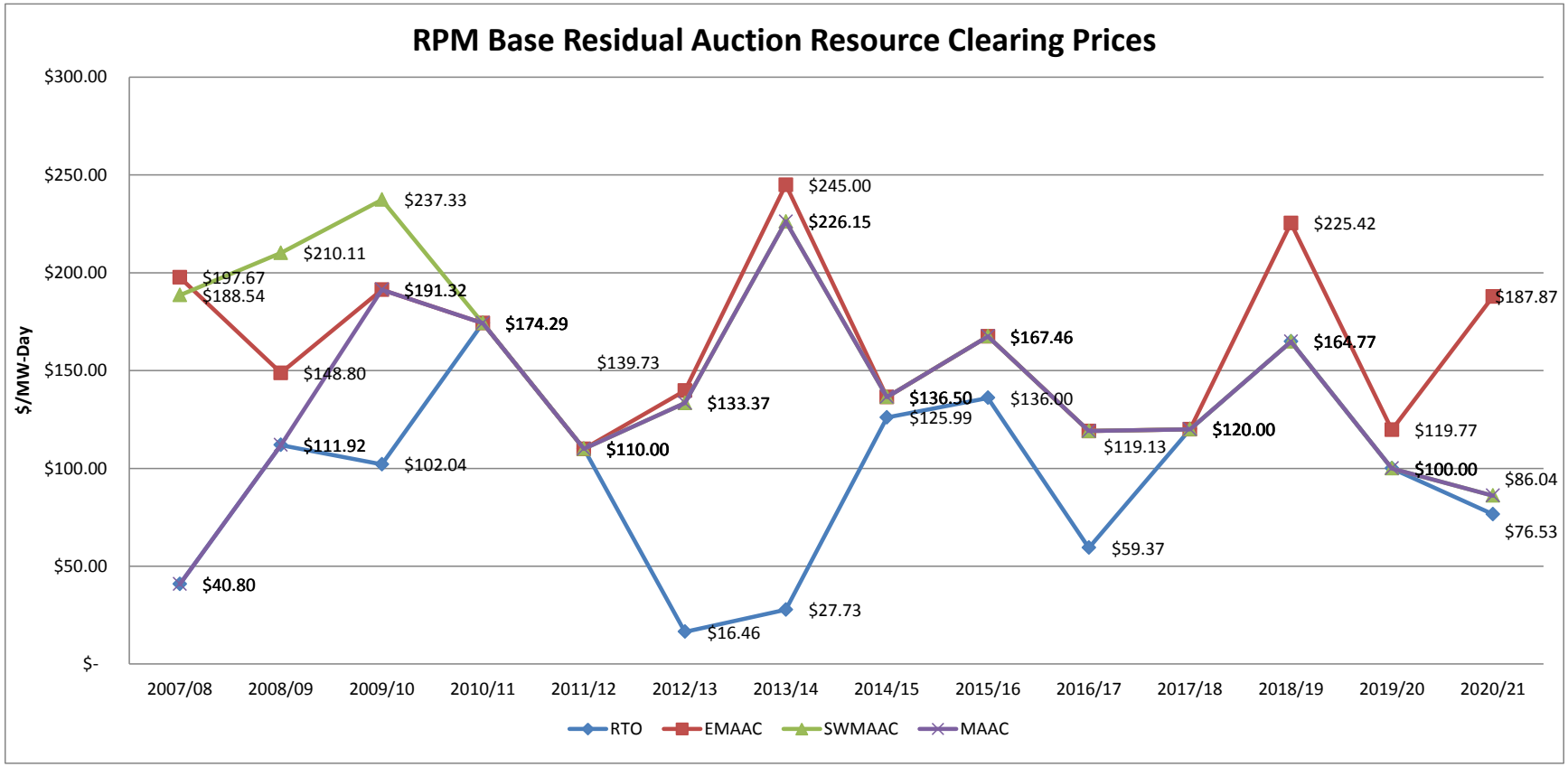
* Offered MW values include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers

** 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

Since the MAAC LDA, EMAAC LDA, ComEd LDA and DEOK LDAs were constrained LDAs, Capacity Transfer Rights (CTRs) will be allocated to loads in these constrained LDA for the 2020/2021 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 LDA for use of the transmission system to import less expensive capacity into that constrained LDA and are valued at the difference in the clearing prices of the constrained and unconstrained regions.

Figure 2 – Base Residual Auction Resource Clearing Prices



* 2014/2015 through 2020/2021 Prices reflect the Annual Resource Clearing Prices.

2020/2021 RPM Base Residual Auction Results

Table 5 contains a summary of the RTO resources for each cleared BRA from 2008/2009 through the 2020/2021 Delivery Years. The summary includes all resources located in the RTO (including FRR Capacity Plans).

A total of 212,995.6 MW of installed capacity was eligible to be offered into the 2020/2021 Base Residual Auction, with 5,440.5 MW from external resources. As illustrated in Table 5, the amount of capacity exports in the 2020/2021 auction increased by 1.6 MW from that of the previous auction and FRR commitments decreased by 1,453.7 MW from the 2019/2020 Delivery Year to 13,931.6 MW.

A total of 189,917.8 MW of capacity was offered into the Base Residual Auction. This is a decrease of 4,325.2 MW from that which was offered into the 2019/2020 BRA. A total of 23,077.8 MW was eligible, but not offered due to either (1) inclusion in an FRR Capacity Plan, (2) export of the resource, or (3) having been excused from offering into the auction. Resources were excused from the must offer requirement for the following reasons: approved retirement requests not yet reflected in eRPM, 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.

Table 5 –RPM Base Residual Auction Generation, Demand, and Energy Efficiency Resource Information in the RTO

	RTO[1]												
Auction Supply (all values in ICAP)	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[7]
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
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
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**
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
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
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
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**
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**
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
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
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
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**
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**

1) RTO numbers include all LDAs.
2) All generation in the Duquesne zone is considered external to PJM for the 2011/2012 BRA.
3) 2013/2014 includes ATSI zone and generation
4) 2014/2015 includes Duke zone and generation
5) 2015/2016 includes a significant portion of AEP and DEOK zone load previously under the FRR Alternative
6) 2016/2017 includes EKPC zone
7) 2020/2021 Generation, DR, and EE Offered MW values include Annual, Summer-Period, and Winter-Period Capacity Performance sell offers

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) for the Delivery Year.

In UCAP terms, a total of 183,351.5 MW were offered into the 2020/2021 BRA, comprised of 171,262.3 MW of generation capacity, 9,846.7 MW of capacity from DR, and 2,242.5 MW of capacity from EE resources. Of those offered, a total of 165,109.2 MW of capacity was cleared in the BRA.

Of the 165,109.2 MW of capacity that cleared in the auction, a total of 155,976.5 MW cleared from Generation Capacity Resources, 7,820.4 MW cleared from DR, and 1,710.2 MW cleared from EE resources, 397.9 MW of which cleared as matched seasonal CP

resources. Capacity that was offered but not cleared in the BRA Auction will be eligible to offer into the First, Second and Third Incremental Auctions for the 2020/2021 Delivery Year.

Table 6 – Generation, Demand Resources, and Energy Efficiency Resources Offered and Cleared in UCAP MW

	RTO*												
Auction Results	**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 *****
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
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
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
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**
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
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
EE Cleared	-	-	-	-	568.9	679.4	822.1	922.5	1,117.3	1,338.9	1,246.5	1,515.1	1,710.2
Total RTO 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**
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

* 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.

*** 2020/2021 BRA Generation, DR, and EE offered and cleared values include Annual, Summer-Period, and Winter-Period Capacity Performan

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

2020/2021 RPM Base Residual Auction Results

Table 7 contains a summary of capacity additions and reductions from the 2007/2008 BRA to the 2020/2021 BRA. A total of 4,257.5 MW of incrementally new capacity in PJM was available for the 2020/2021 BRA. This incrementally new capacity includes new Generation Capacity Resources and capacity upgrades to existing Generation Capacity Resources. The increase is offset by generation capacity deratings on existing Generation Capacity Resources and an increase in the quantity of offered DR and EE to yield a net decrease of 24.5 MW of installed capacity.

Table 7 also illustrates the total amount of resource additions and reductions over fourteen Delivery Years since the implementation of the RPM construct. Over the period covering the first fourteen RPM BRAs, 50,792.0 MW of new generation capacity was added, which was partially offset by 39,639.5 MW of capacity de-ratings or retirements over the same period. Additionally, 9,485.6 MW of new DR and 2,062.9 MW of new EE resources were offered over the course of the fourteen Delivery Years since RPM's inception. The total net increase in installed capacity in PJM over the period of the last fourteen RPM auctions was 22,701.0 MW.

Table 7 – Incremental Capacity Resource Additions and Reductions to Date

	RTO*														
Capacity Changes (in ICAP)	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**	**2013/2014[1]**	**2014/2015[2]**	**2015/2016**	**2016/2017[3]**	**2017/2018**	**2018/2019**	**2019/2020**	**2020/2021**	**Total**
Increase in Generation Capacity	602.0	724.2	1,272.3	1,776.2	3,576.3	1,893.5	1,737.5	1,582.8	8,207.0	6,806.0	6,973.3	5,055.6	6,327.8	4,257.5	50,792.0
Decrease in Generation Capacity	-674.6	-375.4	-550.2	-301.8	-264.7	-3,253.9	-1,924.1	-1,550.1	-6,432.6	-4,992.0	-9,760.1	-3,620.8	-2,923.1	-3,016.1	-39,639.5
Net Increase in Demand Resource Capacity**	555.0	574.7	215.0	28.7	661.7	7,938.1	2,993.3	2,514.4	4,200.5	-5,310.7	-3,077.7	-82.4	86.4	-1,811.4	9,485.6
Net Increase in Energy Efficiency Capacity**	0.0	0.0	0.0	0.0	0.0	632.3	101.1	73.1	101.3	204.8	176.4	-83.5	311.9	545.5	2,062.9
Net Increase in Installed Capacity	**482.4**	**923.5**	**937.1**	**1503.1**	**3973.3**	**7,210.0**	**2,907.8**	**2,620.2**	**6,076.2**	**-3,291.9**	**-5,688.1**	**1,268.9**	**3,803.0**	**-24.5**	**22,701.0**

* RTO numbers include all LDAs

** Values are with respect to the quantity offered in the previous year's Base Residual Auction.

1) Does not include Existing Generation located in ATSI Zone

2) Does not include Existing Generation located in Duke Zone

3) Does not include Existing Generation located in EKPC Zone

Table 7A provides a further breakdown of the generation increases and decreases for the 2020/2021 Delivery Year on an LDA basis.

Table 7A – Generation Increases and Decreases by LDA Effective 2020/2021 Delivery Year

LDA	Increases	Decreases
EMAAC	274.9	(2,268.7)
MAAC	1,367.1	(2,368.5)
Total RTO	**4,257.5**	**(3,016.1)**

All Values in ICAP terms

*MAAC includes EMAAC

**RTO includes MAAC

Table 8 provides a breakdown of the new capacity offered into the each BRA into the categories of new resources, reactivated units, and uprates to existing capacity, and then further down into resource type. As shown in this table, there was a significant quantity of generating capacity from new resources and uprates to existing resources offered into the 2020/2021 BRA. The capacity offered in the 2020/2021 BRA resulted from both new generating resources and uprates to existing resources including gas, diesel, wind, and solar resources. The largest growth remains in combined cycle plants.

Table 8 – Further Breakdown of Incremental Capacity Resource Additions from 2007/2008 to 2020/2021

	Delivery Year	CT/GT	Combined Cycle	Diesel	Hydro	Steam	Nuclear	Solar	Wind	Fuel Cell	Total
New Capacity Units (ICAP MW)	2007/2008			18.7	0.3						19.0
	2008/2009			27.0					66.1		93.1
	2009/2010	399.5		23.8		53.0					476.3
	2010/2011	283.3	580.0	23.0					141.4		1,027.7
	2011/2012	416.4	1,135.0			704.8		1.1	75.2		2,332.5
	2012/2013	403.8		7.8		621.3			75.1		1,108.0
	2013/2014	329.0	705.0	6.0		25.0		9.5	245.7		1,320.2
	2014/2015	108.0	650.0	35.1	132.9			28.0	146.6		1,100.6
	2015/2016	1,382.5	5,914.5	19.4	148.4	45.4		13.8	104.9	30.0	7,658.9
	2016/2017	171.1	4,994.5	38.3		24.0		32.1	54.3		5,314.3
	2017/2018	131.0	5,010.0	124.8	6.0	90.0		27.0			5,388.8
	2018/2019	1,032.5	2,352.3	29.9				82.8	127.1		3,624.6
	2019/2020	167.0	6,145.0	29.9				152.3	73.0		6,567.2
	2020/2021		2,410.0	26.3	4.0			94.3	30.2		2,564.8
Capacity from Reactivated Units (ICAP MW)	2007/2008					47.0					47.0
	2008/2009					131.0					131.0
	2009/2010										-
	2010/2011	160.0		10.7							170.7
	2011/2012	80.0				101.0					181.0
	2012/2013										-
	2013/2014										-
	2014/2015			9.0							9.0
	2015/2016										-
	2016/2017					21.0					21.0
	2017/2018					991.0					991.0
	2018/2019										-
	2019/2020										-
	2020/2021										-
Uprates to Existing Capacity Resources (ICAP MW)	2007/2008	114.5		13.9	80.0	235.6	92.0				536.0
	2008/2009	108.2	34.0	18.0	105.5	196.0	38.4				500.1
	2009/2010	152.2	206.0		162.5	61.4	197.4		16.5		796.0
	2010/2011	117.3	163.0		48.0	89.2	160.3				577.8
	2011/2012	369.2	148.6	57.4		186.8	292.1		8.7		1,062.8
	2012/2013	231.2	164.3	14.2		193.0	126.0		56.8		785.5
	2013/2014	56.4	59.0	0.3		215.0	47.0		39.6		417.3
	2014/2015	104.9		0.5	41.5	138.6	107.0	7.1	73.6		473.2
	2015/2016	216.8	72.0	4.7	15.7	63.4	149.2	2.2	24.1		548.1
	2016/2017	436.6	420.0	3.3	7.4	484.3	102.6	1.7	14.8		1,470.7
	2017/2018	71.9	212.5	5.1	105.9	64.8	11.0	0.4	2.1		473.7
	2018/2019	33.4	548.0	2.4	22.9	11.9	79.3	-	14.9	-	712.8
	2019/2020	29.3	72.5	3.9	5.2	65.3			46.8	-	223.0
	2020/2021	9.3	588.8	1.2	4.6	5.7		1.0	14.7		625.3
	Total	7,115.3	32,585.0	554.6	890.8	4,865.5	1,402.3	453.3	1,452.2	30.0	49,349.0

Figure 4: Cumulative Generation Capacity Increases by Fuel Type

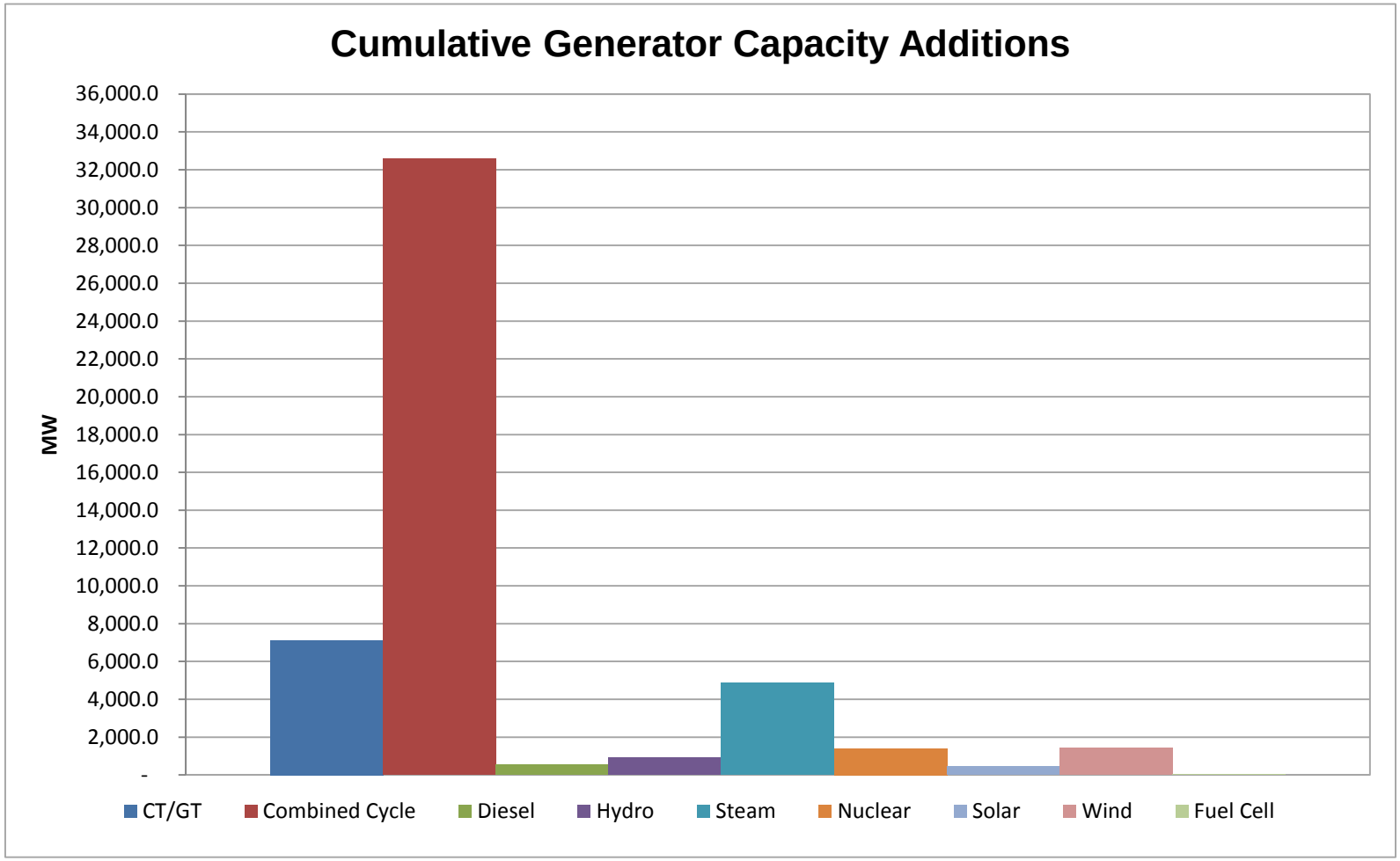


Table 9 shows the changes that have occurred regarding resource deactivation and retirement since the RPM was approved by FERC. The MW values shown in Table 9 represent the quantity of unforced capacity cleared in the 2020/2021 Base Residual Auction that came from resources that have either withdrawn their request to deactivate, postponed retirement, or been reactivated (i.e., came out of retirement or mothball state for the RPM auctions) since the inception of RPM. This total accounts for 4,369.0 MW of cleared UCAP in the 2020/2021 BRA which equates to 5,380.5 MW of ICAP Offered.

Table 9 – Changes to Generation Retirement Decisions since Commencement of RPM in 2007/2008

	RTO*	
Generation Resource Decision Changes	ICAP Offered	UCAP Cleared
Withdraw n Deactivation Requests	1,486.2	656.4
Postponed or Cancelled Retirement	3,511.2	3,057.6
Reactivation	833.1	655.0
Total	**5,830.5**	**4,369.0**

RPM Impact to Date

As illustrated in Table 5, for the 2020/2021 auction, the capacity exports were 1,319.8 MW and the offered capacity imports were 5,440.5 MW. The difference between the capacity imports and exports results is a net capacity import of 4,120.7 MW. In the planning year preceding the RPM auction implementation, 2006/2007, there was a net capacity export of 2,616.0 MW. In this auction, PJM is now a net importer of 4,120.7 MW. Therefore, RPM's impact on PJM capacity interchange is 6,736.7 MW.

The minimum net impact of the RPM implementation on the availability of Installed Capacity resources for the 2020/2021 planning year can be estimated by adding the net change in capacity imports and exports over the period, the forward demand and energy efficiency resources, the increase in Installed Capacity over the RPM implementation period from Table 8 and the net change in generation retirements from Table 9. Therefore, as illustrated in Table 10, the minimum estimated net impact of the RPM implementation on the availability of capacity in the 2020/2021 compared to what would have happened absent this implementation is 71,501.6 MW.

Table 10 shows the details on RPM's impact to date in ICAP terms.

Table 10 – RPM's Impact to Date

Change in Capacity Availability	Installed Capacity MW
New Generation	38,596.0
Generation Upgrades (not including reactivations)	9,202.3
Generation Reactivation	1,550.7
Forward Demand and Energy Efficiency Resources	11,548.5
Cleared ICAP from Withdrawn or Cancelled Retirements	3,867.4
Net increase in Capacity Imports	6,736.7
Total Impact on Capacity Availability in 2020/2021 Delivery Year	**71,501.6**

Discussion of Factors Impacting the RPM Clearing Prices

The main factors impacting 2020/2021 RPM BRA clearing prices relative to 2019/2020 BRA clearing prices are provided below, separated out by changes to the demand-side and supply-side of the market.

Changes that impacted the Demand Curve:

- The forecast peak load for the PJM RTO for the 2020/2021 Delivery Year is 153,915 MW which is 3,273 MW or about 2.1% below the forecast peak load of 157,188 MW for the 2019/2020 BRA.

- 558 MW of Price Responsive Demand has elected to participate in the 2020/2021 Base Residual Auction: 330 MW in the BGE LDA, 170 MW in the PEPCO LDA, and 58 MW in the EMAAC LDA (with 23 MW located in the DPL-South LDA).

- The reliability requirement for RPM load for the PJM RTO for the 2020/2021 Deliver Year is 2,800 MW below that of the 2019/2020 BRA due to the lower forecasted peak load and the PRD election.

Changes that impacted the Supply Curve:

- The 2020/2021 BRA is the first BRA for which PJM has procured only Capacity Performance ("CP") Resources.
    - CP capacity offered by intermittent resources is 3,400 MW lower than the total capacity offered by intermittent resources in the 2019/2020 BRA
    - CP capacity offered by DR is 2,085 MW lower than the total capacity offered by DR in the 2019/2020 BRA
    - 398 MW of seasonal capacity resources cleared in an aggregated manner to form a year-round commitment. 398 MW of summer CP resources comprised of 289 MW of summer DR, 103 MW of summer EE and 6 MW of intermittent resources cleared along with 398 MW of winter CP resources comprised mainly of winter capability from wind resources
- New generation capacity of 3,144 MW was offered into the BRA comprised of 2,537 of new generation and 607 MW of uprates.
- The RCP of constrained LDAs was also impacted by changes in CETL values. A decrease in CETL acts as a decrease in supply for an importing LDA.