



## **2018/2019 RPM Base Residual Auction Planning Period Parameters**

### **Introduction**

The planning parameters for the 2018/2019 RPM Base Residual Auction (BRA) that is to be conducted in May of 2015 were posted on the PJM RPM website on January 30, 2015. Two versions of the planning parameters have been developed and posted – one version shows the parameters as developed under existing PJM Open Access Transmission Tariff (OATT) provisions and the second version shows the parameters as developed under provisions contained in PJM’s Capacity Performance (CP) FERC filing of December 12, 2014 (Docket Nos. ER15-623-000 and EL15-29-000).<sup>1</sup> In that filing, PJM requested an April 1, 2015 effective date which would make the proposed changes effective with the 2018/2019 BRA if accepted by the Commission.

This document describes and provides a comparison between the two sets of 2018/2019 BRA planning parameters, as well as, a comparison of the parameters to those used in the 2017/2018 BRA. The quantity of load electing the Fixed Resource Requirement (FRR) alternative for the 2018/2019 Delivery Year will not be known until after the March 11, 2015 FRR election deadline therefore the currently posted 2018/2019 BRA planning parameters are based on all RTO load included in the RPM auction. The planning parameters for use in the 2018/2019 BRA will be updated and finalized after the March 11, 2015 FRR election deadline.

### **PJM RTO Region Reliability Requirement**

The Installed Reserve Margin (IRM) and Forecast Pool Requirement (FPR) represent the level of capacity reserves needed to satisfy the PJM reliability criterion of a Loss of Load Expectation not exceeding one occurrence in ten years. The IRM and FPR represent the same level of required reserves but are expressed in different terms of capacity value. The IRM expresses the required reserve level in terms of installed capacity MW (ICAP) as a percent of the forecast peak load, whereas the FPR expresses the required reserve level in terms of unforced capacity MW (UCAP) as a percent of the forecast peak load. The FPR is equal to  $(1 + \text{IRM})$  times  $(1 - \text{Pool-wide Average EFORD})$ . The PJM RTO Reliability Requirement expressed in terms of unforced capacity is used as the basis of the target reserve level to be procured in each RPM BRA and is equal to the forecast RTO peak load, multiplied by the FPR, less the sum of the Unforced Capacity Obligations of any FRR Entities in the PJM Region.

The PJM RTO Region Reliability Requirement for the 2018/2019 BRA and the parameters used to derive the requirement are shown in Table 1 for both the existing PJM OATT provisions and the PJM CP filing provisions. For comparison purposes, the values of these parameters used in the 2017/2018 BRA are also shown in Table 1. The forecast peak load for the PJM RTO for the 2018/2019 Delivery Year is 161,418 MW which is about 3,000 MW or nearly 2% below the forecast peak load of 164,479 MW for the

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<sup>1</sup> 2018/2019 planning parameters under current PJM OATT provision are located at <http://www.pjm.com/~media/markets-ops/rpm/rpm-auction-info/2018-2019-planning-period-parameters-current-oatt-provisions.ashx>. 2018/2019 planning parameters under provisions of PJM CP filing are located at <http://www.pjm.com/~media/markets-ops/rpm/rpm-auction-info/2018-2019-planning-period-parameters-proposed-cp-filing-provisions.ashx>



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2017/2018 BRA. The PJM RTO Reliability Requirement for 2018/2019 prior to adjustment for FRR obligation is the forecast peak load multiplied by the FPR or 176,091 MW under the current rules and 174,896 under the CP filing. The PJM RTO Reliability Requirement expressed in UCAP MW terms developed under the provisions of the PJM CP filing is lower than the value developed under the provisions of existing PJM OATT provision due to the impact of inclusion of forced outages that are deemed to be outside plant management control on the pool-wide average EFORD and FPR. While the PJM RTO Reliability Requirement in UCAP MW terms under the PJM CP filing provisions is lower than that determined using existing PJM OATT provisions, the capability in UCAP MW terms of each individual generation resource under the PJM CP filing will be correspondingly lower as a result of including outages that are deemed to be outside plant management control in the EFORD of each generation resource.

**Table 1 – Reserve Requirement Parameters for 2017/2018 and 2018/2019 BRAs**

Reserve Requirement Parameters	2017/2018 BRA	2018/2019 BRA	
		Status-Quo	CP Filing
Installed Reserve Margin (IRM)	15.7%	15.7%	15.7%
Pool Wide 5-Year Average EFORD	5.65%	5.71%	6.35%
Forecast Pool Requirement (FPR)	1.0916	1.0909	1.0835
Forecast Peak Load (MW)	164,478.8	161,418.4	161,418.4
<b>PJM RTO Reliability Requirement (UCAP MW)</b>	<b>179,545.1</b>	<b>176,091.3</b>	<b>174,896.8</b>
FRR Obligation (UCAP MW)	14,538.0	see Note	
PJM RTO Reliability Requirement adjusted for FRR (UCAP MW)	165,007.1		

**NOTE:** the PJM RTO Reliability Requirement will be updated to include FRR load after the March 11, 2015 FRR election deadline.



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### **Locational Deliverability Areas**

Prior to each BRA, the Capacity Emergency Transfer Objective (CETO) and Capacity Emergency Transfer Limit (CETL) are calculated for each of twenty-seven potential Locational Deliverability Areas (LDAs) that are defined in Schedule 10.1 of the PJM Reliability Assurance Agreement.<sup>2</sup> Pursuant to Section 5.10 of Attachment DD of the PJM Open Access Transmission Tariff (OATT), for any Delivery Year, a separate Variable Resource Requirement (VRR) Curve is established for each LDA for which (1) the CETL is less than 1.15 times its CETO; (2) the LDA had a Locational Price Adder in any one or more of the three immediately preceding BRAs; and (3) the MAAC, EMAAC and SWMAAC LDAs are modeled in a BRA regardless of the outcome of the CETL/CETO test or prior BRA results. An LDA not otherwise qualifying under the above three tests may also be modeled if PJM finds that such 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. Based on application of the above criteria and with consideration given to potential future generator deactivations, the LDAs listed in Table 2 will be modeled in the 2018/2019 BRA and are the same LDAs that were modeled in the 2017/2018 BRA.

In RPM, a Reliability Requirement and a separate Variable Resource Requirement (VRR) Curve are established for each LDA that is modeled in the BRA and the LDA CETL acts as a maximum limit on the quantity of capacity that can be imported into the LDA. Table 3 shows the Reliability Requirement and the CETL for each LDA being modeled in the 2018/2019 BRA under both the existing PJM OATT provisions and the PJM CP filing provisions. A single set of CETL values are presented for the 2018/2019 BRA since CETL values are unaffected by the provisions of the PJM CP filing. For comparison purposes, the Reliability Requirement and CETL values for each LDA used in the 2017/2018 BRA are also shown in Table 2.

As shown in Table 2, LDA reliability requirements for the 2018/2019 BRA are generally lower than those of the 2017/2018 BRA. Changes in LDA reliability requirement are driven by changes in the forecast peak load of the LDA and changes in the availability rate of capacity resources located in the LDA. The reliability requirement of an LDA will decrease for a decrease in the forecast peak load of the LDA and an increase in the availability rate of capacity resources located in the LDA. The generally lower LDA reliability requirements for the 2018/2019 BRA relative to those of the 2017/2018 BRA are primarily due to lower forecast peak load levels for 2018/2019. The generally lower 2018/2019 LDA reliability requirements under the PJM CP filing provisions relative to those under the existing PJM OATT provisions are due to differences in the UCAP valuation of capacity resources. Under the PJM CP filing provisions, generator UCAP values decrease as a result of higher EFORd values due to different treatment of outside management control outages and demand response UCAP values increase as a result of elimination of the DR Factor.

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<sup>2</sup> CETO and CETL values were calculated for each of the twenty-seven potential LDAs defined in Schedule 10.1 of the PJM RAA and these values are shown on the detailed planning parameters spreadsheet posted on the PJM RPM website.



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The CETL of an LDA is impacted by the addition or removal of transmission facilities, the magnitude and location of generation deactivations and generation additions, and changes in load distribution profile within the LDA. LDA CETL values for the 2018/2019 BRA vary significantly in some cases from those of the 2017/2018 in both the upward and downward direction but, in general, the magnitude of the changes lie within the year-to-year changes historically experienced. The EMAAC CETL is 940 MW lower for the 2018/2019 BRA, a 10% reduction from the 2017/2018 BRA CETL that is primarily attributable to the addition of a significant amount of planned generation capacity in the Peach Bottom/Rock Springs area contributing to increased loading on the Rocks Spring–Keeney 500 kV line which aggravates the post-contingency voltage profile in the EMAAC area for the loss of the line. The SWMAAC CETL is 1,835 MW higher for the 2018/2019 BRA, a 23% increase above the 2017/2018 CETL, and the PEPCO CETL is 1,686 MW higher for the 2018/2019 BRA, a 31% increase above the 2017/2018 CETL. The increases in SWMAAC and PEPCO CETL values are attributable mainly to the addition of a new 230 kV circuit from Glebe to Station C 230 kV which creates a new transmission path into these LDAs. The CETL values for the PS and PS-North LDAs are 18% and 35% higher, respectively, for the 2018/2019 BRA due to the addition of the PSEG Northern New Jersey 345 kV project which off-loads constrained thermal limits allowing for higher import levels into northern New Jersey. The ComEd CETL is 25% lower for the 2018/2019 BRA primarily due to external system limitations that greatly reduced the import capability into ComEd from outside of PJM.



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**Table 2 – LDA Reliability Requirements and Capacity Import Limits for 2017/2018 and 2018/2019 BRAs**

Locational Deliverability Area	2017/2018 BRA		2018/2019 BRA		
	Reliability Requirement (UCAP MW)	CETL (MW)	Status-Quo Reliability Requirement (UCAP MW)	CP Filing Reliability Requirement (UCAP MW)	CETL (MW)
	MAAC	71,534	7,393	70,372	
EMAAC	39,371	9,315	38,751	38,535	8,375
SWMAAC	16,935	8,053	16,467	16,212	9,888
PS	12,759	6,700	12,537	12,416	7,926
PSNORTH	6,465	2,795	6,446	6,379	3,761
DPLSOUTH	3,215	1,904	3,149	3,150	1,702
PEPCO	8,715	5,359	8,434	8,181	7,045
ATSI	16,009	8,470	16,046	16,048	9,240
Cleveland	6,250	4,940	6,019	6,030	4,557
COMED	28,991	7,020	28,167	28,046	5,227
BGE	8,701	6,217	8,686	8,707	6,527
PPL	10,813	4,336	10,074	10,040	4,538

Note: a single set of CETL values is shown for 2018/2019 BRA because the CETL determination is unaffected by the PJM CP filing



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### **Variable Resource Requirement Curves**

A Variable Resource Requirement (VRR) curve is established for the RTO and for each LDA modeled in the BRA. The VRR curve is a downward-sloping demand curve used in the clearing of the BRA that defines the price for a given level of capacity resource commitment relative to the applicable reliability requirement. The VRR curves for the PJM Region and each LDA are based on a target level of capacity and the Net Cost of New Entry (Net CONE).

### **Target Level of Capacity**

In the development of the VRR curve, the target level of capacity to be procured for the PJM RTO Region is the PJM RTO Region Reliability Requirement less the Short Term Resource Procurement Target (STRPT) where the STRPT is equal to 2.5% of the PJM RTO Region Reliability Requirement, and the target level of capacity for each LDA is the LDA Reliability Requirement less the STRPT allocated to the LDA where the PJM RTO STRPT is allocated to zones based on the ratio of forecast zonal peak load to forecast PJM RTO peak load adjusted for any FRR load. The PJM CP Filing eliminates the STRPT therefore the target level of capacity to be procured for the PJM RTO Region is equal to the PJM RTO Region Reliability Requirement and the target level of capacity to be procured for each LDA is the equal to the LDA Reliability Requirement.

Table 3 shows the 2018/2019 target capacity levels for both the existing PJM OATT provisions and the PJM CP filing provisions. For comparison purposes, the target capacity levels used in the 2017/2018 BRA are also shown in Table 3, and in order to provide for a more direct comparison, the FRR load of the 2017/2018 BRA was removed

### **Net Cost of New Entry (CONE)**

The Net CONE (in UCAP terms) is used in the development of the RTO VRR Curve and the VRR Curve for each modeled LDA. Table 3 shows the CONE values for the PJM RTO and each LDA to be modeled in the 2018/2019 BRA. For comparison purposes, the CONE values used in the 2017/2018 BRA are also shown in Table 3.

Table 3 shows that Net CONE values for the 2018/2019 BRA are lower than those used in the 2017/2018 BRA for the RTO and each LDA. The Net CONE applicable to the RTO VRR curve is about \$300/MW-Day which is \$50/MW-day or 15% below the RTO Net CONE value used in the 2017/2018 BRA. Relative to the LDA Net CONE values used in the 2017/2018 BRA, the 2018/2019 LDA Net CONE values are lower for all LDAs ranging from a 14% decrease for the MAAC LDA to a 30% decrease for the DPL-South LDA. Net CONE values for the 2018/2019 BRA under the PJM CP filing provisions are slightly higher than those under current PJM OATT provisions due to conversion to UCAP MW terms using the higher pool-wide average EFORD associated with the PJM CP filing.



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**Table 3 – RTO and LDA Target Capacity Levels and Net CONE LDA Values for VRR Curve Purposes**

Location	2017/2018 BRA		2018/2019 BRA			
	Target Capacity Level (UCAP MW)	Net CONE (\$/MW-day)	Status-Quo		CP Filing	
			Target Capacity Level (UCAP MW)	Net CONE (\$/MW-day)	Target Capacity Level (UCAP MW)	Net CONE (\$/MW-day)
<b>RTO</b>	175,057	\$351.39	171,689	\$298.53	174,897	\$300.57
<b>MAAC</b>	69,879	\$313.00	68,764	\$269.82	69,854	\$271.67
<b>EMAAC</b>	38,469	\$365.87	37,873	\$282.89	38,535	\$284.82
<b>SWMAAC</b>	16,553	\$313.00	16,097	\$241.52	16,212	\$243.17
<b>PS</b>	12,473	\$365.87	12,261	\$295.97	12,416	\$297.99
<b>PSNORTH</b>	6,326	\$365.87	6,311	\$295.97	6,379	\$297.99
<b>DPLSOUTH</b>	3,149	\$365.87	3,084	\$256.57	3,150	\$250.74
<b>PEPCO</b>	8,531	\$313.00	8,257	\$249.04	8,181	\$258.32
<b>ATSI</b>	15,652	\$373.75	15,693	\$269.88	16,048	\$250.74
<b>Cleveland</b>	6,127	\$373.75	5,898	\$269.88	6,030	\$271.72
<b>COMED</b>	28,351	\$373.75	27,541	\$318.11	28,046	\$320.29
<b>BGE</b>	8,503	\$313.00	8,493	\$233.99	8,707	\$235.59
<b>PPL</b>	10,608	\$354.46	9,875	\$282.86	10,040	\$284.79



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The Net CONE for the RTO and each LDA is equal to the gross CONE applicable to the RTO and each LDA minus the applicable net energy and ancillary services (E&AS) revenue offset. Table 4 shows and compares these components of the Net CONE value for the RTO and each LDA for the 2018/2019 BRA relative to 2017/2018 BRA, and shows that both components moved in a direction that contributed to lower Net CONE values for the 2018/2019 BRA..

Gross CONE values for the 2018/2019 BRA are lower than those used in the 2017/2018 BRA by 9% to 16% depending on the location. Gross CONE values are specified for the RTO and each LDA in section 5.10 of Attachment DD of the PJM OATT and new gross CONE values effective with the 2018/2019 BRA were filed and accepted by FERC on November 28, 2014 in Docket No. ER14-2940-000. The updated gross CONE values were an outcome of the tariff required triennial review of these parameters which was conducted in 2014.

Net E&AS revenue offset Values for the 2018/2019 BRA are higher than those used in 2017/2018 BRA by 24% for the RTO and are generally higher for all LDAs ranging from a 2% decrease for the PS and PS-North LDAs to a 140% increase for the ATSI and Cleveland LDAs. The net E&AS revenue offset is the annual average of the revenues that would have been received by the reference combustion turbine over a period of the three most recent calendar years. The 2018/2019 BRA net E&AS values are higher than those of the 2017/2018 for two reasons: (1) the update of the 3-year period for which the reference resource revenues were determined replaced a low revenue year with a higher revenue year (2018/2017 net E&AS values are based on LMPS from calendar years 2012 through 2014 whereas the 2017/2018 values were based on LMPs from calendar years 2011 through 2013), and (2) the FERC approved triennial review filing introduced changes to the method used to determine LDA net E&AS revenues (net E&AS revenues for zonal LDAs are now based on the net E&AS revenues determined for that zone, and the net E&AS for LDAs that are comprised of multiple zones are based on the average net E&AS of all zones located in the LDA).



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**Table 4 – Net CONE for PJM RTO and LDAs for 2017/2018 and 2018/2019 BRAs**

	2017/2018 BRA				2018/2019 BRA				
	CONE ICAP Terms (\$/MW-Year)	E&AS Offset ICAP Terms (\$/MW-Year)	Net CONE ICAP Terms (\$/MW-Year)	Net CONE UCAP Terms (\$/MW-Day)	CONE ICAP Terms (\$/MW-Year)	E&AS Offset ICAP Terms (\$/MW-Year)	Net CONE ICAP Terms (\$/MW-Year)	Net CONE in UCAP Terms (\$/MW-Day)	
								Status-Quo	CP Filing
<b>RTO</b>	143,434	22,423	121,011	\$351.39	130,425	27,683	102,742	\$298.53	\$300.57
<b>MAAC</b>	146,348	38,559	107,789	\$313.00	131,336	38,474	92,862	\$269.82	\$271.67
<b>EMAAC</b>	156,881	30,885	125,996	\$365.87	132,200	34,842	97,358	\$282.89	\$284.82
<b>SWMAAC</b>	146,348	38,559	107,789	\$313.00	130,300	47,180	83,120	\$241.52	\$243.17
<b>PS, PS-NORTH</b>	156,881	30,885	125,996	\$365.87	132,200	30,339	101,861	\$295.97	\$297.99
<b>DPL-SOUTH</b>	156,881	30,885	125,996	\$365.87	132,200	43,900	88,300	\$256.57	\$258.32
<b>PEPCO</b>	146,348	38,559	107,789	\$313.00	130,300	44,590	85,710	\$249.04	\$250.74
<b>ATSI, Cleveland</b>	143,670	14,960	128,710	\$373.75	128,900	36,019	92,881	\$269.88	\$271.72
<b>ComEd</b>	143,670	14,960	128,710	\$373.75	128,900	19,419	109,481	\$318.11	\$320.29
<b>BGE</b>	146,348	38,559	107,789	\$313.00	130,300	49,770	80,530	\$233.99	\$235.59
<b>PPL</b>	150,718	28,651	122,067	\$354.46	130,300	32,951	97,349	\$282.86	\$284.79



## **2018/2019 RPM Base Residual Auction Planning Period Parameters**

### **Limited Resource and Sub-Annual Resource Constraints**

Table 5 shows the target level of capacity (reliability requirement minus the short-term resource procurement target), the Limited Resource Constraint and the Sub-Annual Resource Constraint for the RTO and for each modeled LDA for the 2018/2019 and 2017/2018 BRAs. The Limited DR Constraint is the maximum quantity of Limited DR that may be procured in the BRA. The Sub-Annual DR Constraint is the maximum quantity of the sum of Limited and Extended Summer DR that may be procured in the BRA.

The calculations of the RTO and LDA Limited and Sub-Annual Resource Constraints are shown on the planning parameters spreadsheet posted on the PJM RPM website and are based on the forecast peak load and DR Reliability Target values for the RTO and each LDA. The Limited DR and Sub-Annual Resource Reliability Targets are determined each year using FERC-approved procedures and formulae, and represent the maximum quantity of the more-limited capacity products that can be committed to PJM without impairing reliability.

The PJM CP filing proposes to replace the Limited and Extended Summer Demand Resource with a new Base Capacity Demand Resource which reflects a combination of the characteristics of the Limited and Extended Summer Demand Resources. The Base Capacity Demand Resource are obligated to perform during the months of June through September (like Limited DR) but are available for an unlimited number of interruptions lasting up to 10 hours each (like Extended Summer DR). The filing proposes a Base Capacity DR Constraint that represents the maximum quantity of Base Capacity DR that may be procured in the BRA and a Base Capacity Resource Constraint that represents the maximum quantity of the sum of Base Capacity DR and EE and generation resources that clear as Base Capacity that may be procured in the BRA. A Base Capacity DR Constraint and a Base Capacity Resource Constraint are determined for the RTO and each modeled LDA. Table 5A shows the target level of capacity, the Base Capacity DR Constraint and the Base Capacity Resource Constraint for the RTO and each modeled LDA for the PJM CP filing provisions.



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**Table 5 – Target Capacity Levels, Limited DR Constraints, Sub-Annual DR Constraints for 2017/2018 and 2018/2019 BRAs**

Location	2017/2018 BRA			2018/2019 BRA			Delta		
	Target Capacity Level (UCAP MW)	Limited DR Constraint (UCAP MW)	Sub-Annual DR Constraint (UCAP MW)	Target Capacity Level (UCAP MW)	Limited DR Constraint (UCAP MW)	Sub-Annual DR Constraint (UCAP MW)	Target Capacity Level (UCAP MW)	Limited DR Constraint (UCAP MW)	Sub-Annual DR Constraint (UCAP MW)
RTO	175,057	2,527	11,424	171,689	3,468	9,832	-3,368	941	-1,592
MAAC	69,879	2,194	5,601	68,764	2,123	10,928	-1,114	-71	5,327
EMAAC	38,469	1,265	4,842	37,873	1,193	5,705	-596	-72	863
SWMAAC	16,554	651	1,829	16,097	615	1,924	-456	-36	95
PS	12,473	477	1,795	12,261	450	2,165	-213	-27	370
PSNORTH	6,326	231	670	6,311	220	992	-16	-11	322
DPLSOUTH	3,149	83	277	3,084	81	223	-65	-2	-54
PEPCO	8,531	271	859	8,257	261	1,192	-275	-10	333
ATSI	15,652	351	1,998	15,693	331	2,088	41	-20	90
Cleveland	6,128	120	1,031	5,898	114	667	-230	-6	-364
COMED	28,351	677	5,824	27,541	660	6,329	-810	-17	505
BGE	8,503	345	964	8,493	335	1,053	-10	-10	89
PL	10,608	217	225	9,875	209	1,185	-733	-8	960

**NOTE:** Target Capacity Levels and Limited and Sub-Annual DR constraints are dependent on the quantity of load that elects the FRR alternative and are subject to change based on any FRR elections that may be made prior to the March 11, 2015 FRR election deadline. FRR load was removed from the 2017/2018 BRA values above to provide a more direct comparison.



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**Table 5a – Target Capacity Levels, Base Capacity DR Constraints, Base Capacity Resource Constraints for 2018/2019 BRA**

Location	2018/2019 BRA		
	Target Capacity Level (UCAP MW)	Base Capacity DR Constraint (UCAP MW)	Base Capacity Resource Constraint (UCAP MW)
<b>RTO</b>	174,897	14,516	28,571
<b>MAAC</b>	69,854	11,751	16,726
<b>EMAAC</b>	38,535	5,654	13,394
<b>SWMAAC</b>	16,212	1,087	2,820
<b>PS</b>	12,416	1,286	4,817
<b>PSNORTH</b>	6,379	242	1,804
<b>DPLSOUTH</b>	3,150	270	438
<b>PEPCO</b>	8,181	500	1,431
<b>ATSI</b>	16,048	2,128	3,474
<b>Cleveland</b>	6,030	746	1,024
<b>COMED</b>	28,046	3,309	11,288
<b>BGE</b>	8,707	673	1,462
<b>PL</b>	10,040	1,026	1,146

**NOTE:** Target Capacity Levels and Base Capacity DR and Base Capacity Resource Constraint values are dependent on the quantity of load that elects the FRR alternative and are subject to change based on any FRR elections that may be made prior to the March 11, 2015 FRR election deadline.



## 2018/2019 RPM Base Residual Auction Planning Period Parameters

### Capacity Import Limits

Effective with the 2017/2018 BRA, PJM implemented limits that recognize the amount of capacity from external resources that PJM can reliably import into the PJM Region. For each BRA, a simultaneous PJM Region Capacity Import Limit and non-simultaneous Capacity Import Limits for five external source-zones are determined and posted with the BRA planning parameters. Due to the significant increase in reserved, firm, Network External Designated (NED) transmission service since the 2017/2018 BRA, PJM utilized an additional screen in determining the CILs for the 2018/2019 BRA. Specifically, in addition to ensuring that the sum of the granted CIL exceptions plus the CIL used in the auction does not exceed the reserved NED service minus the Capacity Benefit Margin (CBM), PJM is also ensuring that the granted CIL exceptions plus the CIL used in the auction does not exceed the First Contingency Total Transfer Capability (FCTTC) minus the CBM.<sup>3</sup> As a result, for the 2018/2019 BRA, no imports will be cleared in the BRA other than those for which a CIL exception is granted because the simultaneous import limit is zero. As of 1/26/2015, granted CIL exceptions totaled 4,777 MW. Because CIL exceptions can continue to be granted up until the BRA, PJM will post the final quantity of granted CIL exceptions prior to the opening of the auction window. For the 2017/2018 BRA, the simultaneous import limit was effectively equal to 612 MW (the sum of the individual External Source Zone limits).

**Table 6 – Capacity Import Limits for 2018/2019 BRA**

	Simultaneous PJM Region	External Source-Zone				
		North	West 1	West 2	South 1	South 2
2018/2019 BRA	0 *	92	0	89	366	20
2017/2018 BRA	1524 **	27	0	397	188	0

\* Since the simultaneous limit is zero, no imports will be cleared in the BRA other than those for which a CIL exception is granted.

\*\* Since the simultaneous limit is greater than the sum of the individual External Source Zone limits, this limit will not constrain imports and is effectively equal to 612 MW (the sum of the individual limits)

<sup>3</sup> The posted 2018/2019 planning parameters contain additional information and detail on the CIL determination.



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### **Summary**

- The forecast peak load for the PJM RTO for the 2018/2019 Delivery Year is 161,418 MW which is about 3,000 MW or nearly 2% below the forecast peak load of 164,479 MW for the 2017/2018 BRA.
- The MAAC, EMAAC, SWMAAC, PS, PSNORTH, PEPCO, DPLSOUTH, ATSI, Cleveland, ComEd, BGE and PPL LDAs will be modeled in the 2018/2019 BRA. These are the same LDAs that were modeled in last year's 2018/2018 BRA.
- LDA Reliability Requirements for the 2018/2019 BRA are generally lower than those of the 2017/2018 BRA due to lower forecast peak load levels for 2018/2019.
- The EMAAC CETL is 940 MW lower for the 2018/2019 BRA, a 10% reduction from the 2017/2018 BRA CETL that is primarily attributable to the addition of a significant amount of planned generation capacity in the Peach Bottom/Rock Springs area. The SWMAAC CETL is 1,835 MW higher for the 2018/2019 BRA, a 23% increase above the 2017/2018 CETL, and the PEPCO CETL is 1,686 MW higher for the 2018/2019 BRA, a 31% increase above the 2017/2018 CETL. The increases in SWMAAC and PEPCO CETL values are attributable mainly to the addition of a new 230 kV circuit from Glebe to Station C 230 kV which creates a new transmission path into these LDAs. The CETL values for the PS and PS-North LDAs are 18% and 35% higher, respectively, for the 2018/2019 BRA due to the addition of the PSEG Northern New Jersey 345 kV project. The ComEd CETL is 25% lower for the 2018/2019 BRA primarily due to external system limitations that greatly reduced the import capability into ComEd from outside of PJM.
- Net CONE values for the 2018/2019 BRA are lower than those used in the 2017/2018 BRA for the RTO and each LDA. The Net CONE applicable to the RTO VRR curve is about \$300/MW-Day which is \$50/MW-day or 15% below the RTO Net CONE value used in the 2017/2018 BRA.
- For the 2018/2019 BRA, no imports will be cleared in the BRA other than those for which a CIL exception is granted because the simultaneous import limit is zero. As of 1/26/2015, granted CIL exceptions totaled 4,777 MW, however, CIL exceptions can continue to be granted up until the BRA and PJM will post the final quantity of granted CIL exceptions prior to the opening of the auction window. For the 2017/2018 BRA, the simultaneous import limit was effectively equal to 612 MW (the sum of the individual External Source Zone limits).