

RPM Base Residual Auction FAQs

General Questions

1. What is the purpose of a Reliability Pricing Model Base Residual Auction?

The Base Residual Auction is conducted to allow for the procurement of resource commitments to satisfy the PJM region's unforced capacity obligation for the Delivery Year and allocates the cost of those commitments to Load Serving Entities (LSEs) through a Locational Reliability Charge.

2. How can I confirm when a Reliability Pricing Model Base Residual Auction is being held?

An RPM Base Residual Auction for a Delivery Year is held during the month of May, three years prior to the actual Delivery Year. You can confirm that an RPM Base Residual Auction is being held by viewing the RPM schedule posted on the pjm website. The schedule for all RPM auctions is posted on the Capacity Market (RPM) web page under the heading "Auction Schedule".

<http://www.pjm.com/~media/markets-ops/rpm/rpm-auction-info/rpm-auction-schedule.ashx>

3. What time does the auction offer window open on the first day of the auction?

The Reliability Pricing Model Auction offer window opens at 12:01 a.m. EPT on the first day of the auction offer window.

4. What times does the auction offer window close on the last day of the auction?

The Reliability Pricing Model Auction offer window closes at 5 p.m. EPT on the last day of the auction offer window.

5. When will the auction results be posted?

The RPM Auction results will not be posted until after 4 p.m. EPT on the fifth business day after the close of auction offer window.

6. May I submit a buy bid in a Reliability Pricing Model Base Residual Auction?

Market participants are not permitted to submit buy bids in RPM Base Residual Auctions. Variable Resource Requirement Curve(s) are posted in advance of the RPM BRA and used as the demand curve(s) in the BRA auction clearing process. The Variable Resource Requirement Curve(s) are posted under the Delivery Year's "Planning Year Parameters" link on Capacity Market (RPM) web page.

7. Can I submit transactions in the eRPM system during a Base Residual Auction?

With the exception of certain Replacement Capacity transactions, the eRPM system will not accept transactions (Capacity Modifications, Demand Resource Modifications, Energy Efficiency Modifications, Unit-specific transactions, Cleared Buy Bid transactions, Auction Specific MW transactions or Locational UCAP Transfers) during the offer window or clearing week of the Base

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Residual Auction. Only Replacement Capacity transactions for the current Delivery Year will be accepted during a future Delivery Year's Base Residual Auction.

Capacity Modification transactions which impact the available capacity of a generation resource for such Base Residual Auction must be submitted in the eRPM system in advance of the offer window of the Base Residual Auction. Capacity Modification transactions need to be in a "Provisionally Approved" or "Approved" status in order to offer the associated capacity from such generation resource into the Base Residual Auction.

Sell Offer Questions

8. What are the must offer requirements for resources in a Reliability Pricing Model Base Residual Auction?

All existing generation resources physically located in the PJM Region have a must offer requirement of at least their minimum available installed capacity position (i.e., Minimum Available ICAP position). Resources with a Minimum Available ICAP position that is zero or negative are not required to offer into the RPM Base Residual Auction. Generation is treated as existing for must-offer purposes when the generation is (a) in service at commencement of the RPM Auction or (b) not yet in service but has cleared an RPM Auction for any prior Delivery Year.

Effective with the 2018/2019 Delivery Year, all Generation Capacity Resources that are capable or can reasonably become capable of qualifying as Capacity Resources must be offered as Capacity Performance (including external Generation Capacity Resources with Capacity Import Limit (CIL) exception). Intermittent Resources, Capacity Storage Resources, Demand Resources, and EE Resources are categorically exempt from the Capacity Performance must offer requirement.

Requests for exceptions to the overall must offer requirement and/or the requirement to offer as Capacity Performance must be submitted by the deadline dates posted for a Delivery Year BRA on the RPM Schedule. The RPM Schedule is posted on the Capacity Market (RPM) web page under the heading "Auction Schedule".

Fixed Resource Requirement (FRR) Entities are eligible to offer their available capacity into the RPM Base Residual Auction subject to conditions placed on sales by FRR Entities; however, the must offer requirement does not apply to these entities. Details on the Conditions on Sales by FRR Entities are available in Schedule 8.1 E. of the Reliability Assurance Agreement and Section 11.7 of PJM Capacity Market Manual, Manual 18.

There is no must offer requirement for demand resources, energy efficiency resources, or external generation resources that have not been granted a Capacity Import Limit (CIL) exception. External generation resources that have been granted a CIL exception are subject to a must offer requirement under the same obligations imposed to internal generation resources by Section 6.6 of Attachment DD of the OATT to offer into RPM Auctions.

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9. Does the action of submitting a Demand Resource Sell Offer Plan or an Energy Efficiency Measurement & Verification Plan to PJM, the action of requesting PJM to model a Demand Resource/Energy Efficiency Resource in the eRPM system, or the action of completing the DR Set Up screens or EE Set Up screens in the eRPM system commit us to offering the Demand Resource or Energy Efficiency Resource into the Base Residual Auction?

There is no must offer requirement for Demand Resources or Energy Efficiency Resources. The submittal of a Demand Resource Sell Offer Plan or an Energy Efficiency Measurement & Verification Plan, the modeling of a Demand Resource or Energy Efficiency Resource in the eRPM system, or the completion of the DR Set Up screens or EE Set Up screens in the eRPM system does not obligate a Resource Provider to offer the Demand Resource or Energy Efficiency Resource into the Base Residual Auction.

10. How much available capacity from a generation resource must I offer in a Reliability Pricing Model Base Residual Auction?

The eRPM system will calculate Minimum Available ICAP, Maximum Available ICAP and Current Available ICAP positions for a generation resource on the Resource Offer screen. For the Base Residual Auction, the Minimum Available ICAP, Maximum Available ICAP and Current Available ICAP positions for a generation resource will be equal. If you have a positive Minimum/Maximum/Current Available ICAP position, you will be expected to offer at least the Minimum/Maximum/Current Available ICAP megawatts into the Base Residual Auction. The sum of the Max MW values in each of the ten product-specific offer segments cannot exceed the Minimum/Maximum/Current Available ICAP MWs. If you have a zero Minimum/Maximum/Current Available ICAP MW value for a resource, you will not be able to offer MWs from such resource into the RPM Base Residual Auction.

See the example screen shot below:

GEN - TEST GENERATOR - Annual

EFORd:

Max Offer EFORd: **0.00024**

New Unit Pricing:

MPCE:

EFORd Segment

EFORd Limit: null

Min MW	(null)
Max MW	(null)
Price	(null)

Available ICAP MW

Current	10
Max	10
Min	10

		1	2	3
Capacity Performance	Min MW	(null)	(null)	(null)
	Max MW	(null)	(null)	(null)
	Price	(null)	(null)	(null)
Base	Min MW	(null)	(null)	(null)
	Max MW	(null)	(null)	(null)
	Price	(null)	(null)	(null)
Scheduling Option		(null)	(null)	(null)
Self Supply		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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11. How do you submit a Resource Offer in the eRPM system?

For instructions on how to submit a Resource Offer in the eRPM system, please see Task 2: Enter Resource Offers in the Auctions section of the eRPM Users Guide posted on the PJM tools eRPM Web page at <http://www.pjm.com/markets-and-operations/etools/~media/markets-ops/rpm/erpm-user-guide.ashx>.

12. How are the Minimum Available ICAP, Maximum Available ICAP, and Current Available ICAP position calculated for the Base Residual Auction?

The Minimum Available ICAP, Maximum Available ICAP, and Current Available ICAP position for the Base Residual Auction for a specific unit is equal to the minimum of a party's (Daily ICAP Owned – Daily FRR ICAP Commitments) for such unit for the Delivery Year.

Minimum/Maximum/Current Avail ICAP Position = Min (Daily ICAP Owned – Daily FRR ICAP Commitment) in the Delivery Year

13. What Equivalent Demand Forced Outage Rate (EFORd) value may I submit in a Base Residual Auction generation resource offer?

The EFORd value that may be submitted in a generation resource offer in a Base Residual Auction may range from zero to the maximum EFORd value for a generation resource. The maximum EFORd that may be submitted in a generation resource offer in a Base Residual Auction is the maximum of the BRA EFORd_{1 yr} or BRA EFORd_{5 yr}.

BRA EFORd_{1 yr} = EFORd_{1 yr} as known at time of the Base Residual Auction (BRA) based on outage data for 12 months ending Sept. 30 prior to the BRA.

BRA EFORd_{5 yr} = EFORd_{5 yr} as known at time of BRA based on outage data for five years ending Sept. 30 prior to the BRA.

Resource owners must receive permission from the Market Monitor in order to enter a sell offer EFORd that exceeds the BRA EFORd_{1 yr} or BRA EFORd_{5 yr}.

You may view the BRA EFORd_{1 yr} or BRA EFORd_{5 yr} that is applicable for your generation resources for a Delivery Year's Base Residual Auction through the Resource Detail screen in the eRPM system. Please ensure that the date on the Resource Detail screen is populated with June 1 of the relevant Delivery Year. For further instructions on how to view the resource position detail for generation resources in the eRPM system, please see Task 2: View Resource Position Detail: Generation Resources in the Resource Position Overview section in the eRPM User Guide posted on the PJM tools eRPM Web page at <http://www.pjm.com/markets-and-operations/etools/~media/markets-ops/rpm/erpm-user-guide.ashx>.

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14. Does the EFORD Offer Segment apply for a Base Residual Auction?

Effective with the March 26, 2009 FERC Order on the Reliability Pricing Model, the EFORD Offer Segment has been eliminated. The EFORD Segment box will still be viewable on the Resource Offer screen in eRPM. If the data in the Min MW, Max MW or Price field in the EFORD Segment box are not “null” or zero, you will receive an error message upon submittal of your generation resource offer.

15. How is the generation resource offer cap value for a Base Residual Auction determined?

Market participants must use the RPM/ACR system, an application hosted by Monitoring Analytics, LLC, and used for the selection of offer cap types and for submission of data to the Market Monitor for the purposes of calculating offer caps for RPM Auctions. The list of deadline dates associated with RPM/ACR activities for a specific RPM Auction is available on Monitoring Analytics website’s “Tools” page at <http://www.monitoringanalytics.com/tools/tools.shtml>.

Offer cap options include (per section 6.4 of Attachment DD of the PJM OATT):

- An ACR based offer cap which is calculated as ACR less net revenues, where the ACR is either the default ACR or calculated unit specific ACR. This option requires the participant to input data into the RPM/ACR system, provide any supporting documentation to Monitoring Analytics, and request net revenues by emailing RPMNetRevenue@monitoringanalytcs.com.
- A default Capacity Performance offer cap for Capacity Performance Generation Resources that is calculated as Net CONE of the zonal LDA in which the resource resides times posted Balancing Ratio. The default CP offer caps applicable for a Delivery Year Incremental Auction are posted on the Capacity Market (RPM) web page at <http://www.pjm.com/markets-and-operations/rpm.aspx> under the applicable Delivery Year heading.
- An opportunity cost based offer cap which is the documented price available to an existing generation resource in a market external to PJM. This option requires the participant to input an opportunity cost based offer cap in the RPM/ACR system and submit a calculation of opportunity cost along with detailed supporting documentation to Monitoring Analytics.
- An alternative offer cap as approved by Monitoring Analytics and FERC.

16. What default Avoidable Cost Rate (ACR) values are applicable for the Base Residual Auction?

The default ACR values that are applicable for a Delivery Year Base Residual Auction are posted on the Capacity Market (RPM) web page at <http://www.pjm.com/markets-and-operations/rpm.aspx>. The default ACR values applicable for the Delivery Year’s RPM Auctions are available under the applicable Delivery Year heading on the Capacity Market (RPM) web page.

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DOCs # 588747

Last Update: October 10, 2016

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17. Why am I receiving the following error message when I try to submit my resource offer in the Base Residual Auction: “Failed to submit: Offers may not be submitted until all resource information is confirmed for Delivery Year 20YY/20YY Auction BASE”?

Prior to any Reliability Pricing Model Auction, RPM suppliers must confirm the modeling of each of their capacity resources in the eRPM system. RPM suppliers must verify the following characteristics for generation, demand resource or energy efficiency resources for which they have a positive Available ICAP position for the RPM Auction: zone assignment, LDA assignment and product type on the Auction screen of the Resource Confirmation tab. For generation resources, RPM suppliers must also verify unit location by state, unit type, and unit fuel type.

For instructions on how to confirm the modeling of your capacity resources, please refer to Task 1: Resource Confirmation in the Auctions section of the eRPM User Guide posted on the PJM tools eRPM Web page at <http://www.pjm.com/markets-and-operations/etools/~media/markets-ops/rpm/erpm-user-guide.ashx>.

18. Should I check the self-supply box on the offer segment of my resource offer?

The self-supply check box provides the ability for entities offering resources into a Reliability Pricing Model Auction to designate any cleared megawatts from such offer segment as self-supply. The purpose of the self-supply designation is, when desired, to prevent PJM Settlement from being the counterparty for the designated supply. For example, rural electric cooperatives that must comply with limits on non-member income in order to retain their tax exempt status may wish to utilize this designation. It is not necessary to make this self-supply designation for the purposes of self scheduling resources with a zero offer price.

19. Should I enter a Maximum Post-Auction Credit Exposure (MPCE) amount on my resource offer?

A MPCE amount in \$/year should only be entered by those suppliers that are offering **planned** MWs for non-Capacity Performance generation, demand or energy efficiency resources (i.e., Base Offer segments starting with the 2018/2019 Delivery Year) and intend to submit a credit limited offer by specifying a MPCE amount for such planned resource. The auction will only clear planned megawatts for such resource such that the post-auction credit exposure (\$/year) for the cleared MWs does not exceed the MPCE amount specified in the resource offer. A MPCE amount should not be entered by those suppliers that are offering existing MWs or those suppliers that are offering Capacity Performance segments. If a supplier has both Existing MWs and Planned MWs on a capacity resource and desires to enter a MPCE for the planned MWs, a separate resource (with MPCE in the resource name) must be modeled in the eRPM system. Please email the RPM Hotline at rpm_hotline@pjm.com to request the modeling of a separate resource.

Suppliers offering **existing** generation, demand or energy efficiency resources should not enter a MPCE amount in the resource offer. Entering an MPCE amount equal to \$0/year on a resource offer will prevent the resource from clearing in the RPM Auction.

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20. Am I required to submit my resource sell offer as 10 offer segments?

No. A generation, demand resource, or energy efficiency resource with the potential to qualify as Base or Capacity Performance product type may submit up to 10 separate, but coupled Base and Capacity Performance sell offer segments and the auction clearing algorithm will select either the Base or Capacity Performance portion of each of the 10 segments that yields the least-cost solution for the system.

21. For the 2018/2019 and 2019/2020 Delivery Year, am I required to submit coupled sell offer?

Any resource that can meet requirements as Capacity Performance (CP) may submit separate, but coupled CP and Base Sell Offer sell offer with a price difference reflective of the cost to meet requirements of CP. However, a Generation Capacity Resource having a Capacity Performance (CP) must-offer requirement and an accepted CP market seller offer cap (MSOC) greater than the applicable default CP MSOC is required to submit a coupled sell offer which includes a Capacity Performance offer segment and Base offer segment if submitting an offer price for Capacity Performance offer segment above the default MSOC.

22. For the 2018/2019 and 2019/2020 Delivery Year, how do I submit a coupled sell offer?

A coupled sell offer segment is submitted by entering offer data on the Resource Offer Screen in both the Capacity Performance and Base portions of a single offer segment. For each coupled sell offer segment, the sell offer price of the Capacity Performance sell offer segment must be at least \$0.01/MW-day greater than the sell offer price of the associated Base offer segment. Each coupled sell offer segment is cleared independently of one another. The auction will only clear one of the products in a single coupled sell offer segment and will choose the product that yields the least-cost solution for the system. The auction clearing will honor the sell offer prices of both products in a single coupled sell offer segment and will not clear a product if the applicable product-specific resource clearing price is below the applicable product sell offer price.

23. For the 2018/2019 and 2019/2020 Delivery Year, how do I submit a non-coupled sell offer?

A non-coupled sell offer can be submitted by entering offer data for only one of the products (Capacity Performance or Base) in a single offer segment.

24. What is the significance of Min MW and Max MW amounts in my offer segment?

A supplier is willing to accept the clearing of any amount equal to or greater than the Min MW amount specified in the segment and equal to or less than the Max MW amount specified in the segment. If the Min MW amount specified in the segment is greater than 0 MW and less than or equal to the Max MW amount specified in the segment, the segment is considered inflexible and may not clear in the RPM Auction due to the Min MW amount specified in the offer segment, even if the segment offer price is less than or equal to the auction's relevant resource clearing price as it may be more cost effective to clear a higher priced but flexible resource.

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25. How can I confirm that my sell offer has been successfully submitted in the eRPM system?

If you click the “Refresh” button on the Auction/ Resource Offer screen in the eRPM system and the offer data that you entered is displaying in the offer segments, your offer has been successfully submitted in the eRPM system.

You may also download this information by clicking “Download CSV” or “Download XML” on the Resource Offer screen in the eRPM system.

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