

RPM Incremental Auction FAQs

General Questions

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

The First, Second, and Third Incremental Auctions are conducted to allow for replacement resource procurement, and increases (procurement) and decreases (selling excess) in resource commitments due to reliability requirement adjustments. A Conditional Incremental Auction may be conducted if a Backbone Transmission upgrade is delayed and results in the need for PJM to procure additional capacity in a Locational Deliverability Area to address a reliability criteria violation.

2. How can I confirm that a Reliability Pricing Model Incremental Auction is being held?

You can confirm that an RPM Incremental 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" at <https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/rpm-auction-schedule.ashx?la=en>.

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

The RPM Auction offer/bid window opens at 12:01 a.m. EPT on the first day of the auction offer/bid window.

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

The RPM Auction offer/bid window closes at 5 p.m. EPT on the fifth business day after the opening of the RPM Auction offer/bid 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 the RPM Auction offer/bid window.

6. What restrictions are placed on Locational UCAP transactions prior to an Incremental Auction?

Prior to the locking of the final Equivalent Demand Forced Outage Rate (EFORd) for the Delivery Year (i.e., Nov. 30 prior to the Delivery Year), Locational UCAP transactions will not be accepted in the Capacity Exchange system. Therefore, Locational UCAP transactions will not be accepted prior to a First or Second Incremental Auction.

After the locking of the final EFORd for the Delivery Year, but before the Third Incremental Auction opens, Locational UCAP transactions will be accepted; however, the buyer of the Locational UCAP transaction must demonstrate prior to the Third Incremental Auction that the Locational UCAP was used in a replacement capacity transaction.

If you purchased Locational UCAP from another party prior to the Third Incremental Auction, you must create a replacement transaction in Capacity Exchange and use the Locational UCAP to

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reduce the commitment on a Reliability Pricing Model committed resource before the start of the Third Incremental Auction. If the Locational UCAP capacity is not used by the buyer in a replacement capacity transaction by the opening of the Third Incremental Auction bidding window, PJM will deny the Locational UCAP transaction and the seller of the denied Locational UCAP transaction would be required to offer any resulting available capacity into the Third Incremental Auction.

7. May I submit a transaction in the Capacity Exchange system during an Incremental Auction?

The Capacity Exchange system will allow participants to submit Replacement Capacity Transactions for the current Delivery Year and the upcoming Delivery Year up to the quantity of any commitment deficiency, Unit-Specific Transactions (Available, Cleared, and Unoffered) for the current Delivery Year, Locational UCAP Transactions for the current Delivery Year, and Cleared Buy Bids for the current Delivery Year only during an auction window. All transactions that do not fall into the type and timing noted above will not be accepted from the time the Incremental Auction bidding window is open through the time the Incremental Auction results are posted.

8. If an LDA was modeled in the Base Residual Auction but the locational or product-specific constraint did not bind, can it still have a separate clearing price in the Incremental Auctions for that Delivery Year?

Yes. LDAs that were modeled in the Base Residual Auction will also be modeled in the incremental auctions for that delivery year. The Capacity Emergency Transfer Limit (CETL) will be adjusted in an Incremental Auction to account for the import capability that was utilized in prior RPM Auction(s) for the Delivery Year. If in the clearing process that adjusted limit is reached, there could be locational price separation between the LDAs. In addition, the Base Capacity Demand Resource Constraint and Base Capacity Resource Constraint (2019/2020 Delivery Year) will be adjusted in an Incremental Auctions to account for the product-types that cleared in prior RPM Auction(s) for the Delivery Year. If in the clearing process the adjusted constraint is reached, there could be product price separation between the LDAs.

9. Do the positive available megawatts on one generator automatically help offset a negative position on another resource during the Delivery Year?

Commitment compliance is **not** calculated on a portfolio basis. All negative available resource positions in effect for a given operating day will be assessed a commitment compliance penalty. In order to cure a particular resource's negative position with a positive position on another resource in your portfolio, a replacement capacity transaction must be created in Capacity Exchange. If the replacement capacity transaction involves a generation resource with a positive Available capacity as the source of replacement capacity and such replacement capacity transaction is not submitted and approved prior to the Third Incremental Auction window opening, the generation resource with the positive Available capacity must be offered into the Third Incremental Auction.

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Sell Offer Questions

10. What megawatt amount of my generation resource is required to offer in an Incremental Auction for the Delivery Year?

The Capacity Exchange system will calculate Minimum Available Installed Capacity (ICAP), Maximum Available ICAP, and Current Available ICAP positions for a generation resource on the Resource Offer Screen. If you have a positive Minimum Available ICAP position, you will be expected to offer at least the Minimum Available megawatts into the Incremental Auction. If you have a negative or zero Minimum Available ICAP value, you will not be expected to offer any MWs into the Incremental Auction.

The Minimum, Maximum, and Current Available MWs are displayed on the Resource Offer screen. You need to submit a resource offer at least equal to the positive Minimum Available ICAP value, and no greater than your Maximum Available ICAP MW value.

11. How is the Minimum Available Installed Capacity (ICAP) position calculated for a generation resource?

The Minimum Available ICAP position is the minimum amount of capacity in ICAP terms that **must** be offered into the auction.

Minimum Available ICAP Position = Min (Daily Minimum Available ICAP) in the Delivery Year

Daily Minimum Available ICAP = Daily ICAP Owned – Daily Unoffered ICAP – [Daily Cleared UCAP/(1 – Max (BRA EFORD_{1 yr}, BRA EFORD_{5 yr}, BRA Sell Offer EFORD))] – Daily FRR ICAP Commitment

BRA EFORD_{1 yr} = EFORD_{1 yr} as known at time of the Base Residual Auction (BRA)

BRA EFORD_{5 yr} = EFORD_{5 yr} as known at time of BRA

BRA Sell Offer EFORD = EFORD value submitted by party in BRA Sell Offer

For the Base Residual Auction and Third Incremental Auction, a party's Minimum Available ICAP position will equal to the party's Current Available ICAP position for such unit.

12. How is the Maximum Available Installed Capacity (ICAP) position calculated for a generation resource?

The Maximum Available ICAP position is the maximum amount of capacity in ICAP terms that **may** be offered into the auction.

Maximum Available ICAP Position = Min (Daily Maximum Available ICAP) in the Delivery Year

Daily Maximum Available ICAP = Daily ICAP Owned – Daily Unoffered ICAP – [Daily Cleared UCAP/(1 – 0)] – Daily FRR ICAP Commitment

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BRA EFORd_{1 yr} = EFORd_{1 yr} as known at time of the Base Residual Auction (BRA)

BRA EFORd_{5 yr} = EFORd_{5 yr} as known at time of BRA

BRA Sell Offer EFORd = EFORd value submitted by party in BRA Sell Offer

For the Base Residual Auction and Third Incremental Auction, a party's Maximum Available ICAP position will equal to the party's Current Available ICAP position for such unit.

13. How is the Current Available Installed Capacity (ICAP) position calculated for a generation resource?

The Current Available ICAP position is the capacity value of the unit, in ICAP terms, that is not otherwise committed or ineligible to receive capacity revenue, using the most current available outage data.

Current Available ICAP Position = Min (Daily Available ICAP) in the Delivery Year

Daily Available ICAP = Daily ICAP Owned – Daily Unoffered ICAP – [Daily Cleared UCAP/(1 – Effective EFORd)] – Daily FRR ICAP Commitment

Effective EFORd = The EFORd based on forced outage data for 12 month ending September 30 prior to the RPM Auction. For the Third Incremental Auction, the Effective EFORd will be the Final EFORd for the Delivery Year.

For the Base Residual Auction and the Third Incremental Auction, the Current Available ICAP Position, Minimum Available ICAP Position and Maximum Available ICAP Position will be equal.

14. What megawatt amount of my Demand Resource or Energy Efficiency Resource is required to offer in an Incremental Auction for the Delivery Year?

Demand Resources and Energy Efficiency Resources are not required to offer in an Incremental Auction for the Delivery Year. A Demand Resource provider or an Energy Efficiency Resource provider may choose to offer installed capacity from a Demand Resource or an Energy Efficiency Resource in an amount up to the Total Available Installed Capacity (ICAP) MW amount that appears for such resource on the Resource Offer screen in Capacity Exchange.

15. What Equivalent Demand Forced Outage Rate (EFORd) value may I submit in an Incremental Auction generation resource offer?

For the First or Second Incremental Auction, the minimum EFORd that may be submitted in a generation resource offer is 0.

For the First or Second Incremental Auction, the maximum EFORd that may be submitted in a generation resource offer is the maximum of the BRA EFORd_{1 yr}, BRA EFORd_{5 yr}, and BRA Sell Offer EFORd.

BRA EFORd_{1 yr} = EFORd_{1 yr} as known at time of the Base Residual Auction (BRA)

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BRA EFORd_{5 yr} = EFORd_{5 yr} as known at time of BRA

BRA Sell Offer EFORd = EFORd value submitted by party in BRA Sell Offer

The Maximum allowable Offer EFORd is displayed on the Resource Offer Screen.

Resource owners must receive permission from the Market Monitor in order to enter a Sell Offer EFORd that exceeds the BRA EFORd_{1 yr}, BRA EFORd_{5 yr}, and BRA Sell Offer EFORd.

For the Third Incremental Auction, the only EFORd that may be submitted in a generation resource offer is the final EFORd for the Delivery Year. PJM will preload the final EFORd values in the Resource Offer screen.

If you have a question regarding the pre-populated value, please contact the RPM Hotline at: RPM_Hotline@pjm.com.

16. How is the generation resource offer cap value for an Incremental 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@monitoringanalyticts.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.

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- For the Third Incremental Auction, election of 1.1 times the Base Residual Auction resource clearing price for relevant LDA and Delivery Year.

17. What is the offer cap for existing Demand Resources and Energy Efficiency Resources?

Existing Demand Resources and Energy Efficiency Resources are not subject to offer caps in RPM Auctions.

18. Can Unoffered MWs be offered into an Incremental Auction?

Unoffered capacity is capacity that was available, but not offered into a prior RPM Auction for the Delivery Year, and is **not** eligible to be offered into a subsequent Incremental Auction for the same Delivery Year.

19. 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.

20. 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 Resources or Energy Efficiency Resources (i.e., Base Offer segments starting for the 2018/2019 and 2019/2020 Delivery Years) 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 Offer 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 Capacity Exchange 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/yr on a resource offer will prevent the resource from clearing in the Reliability Pricing Model Auction.

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

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No. Prior to the 2018/2019 Delivery Year, you may offer the resource as a single segment (a single price quantity in \$/MW-day (in unforced capacity (UCAP) terms) for the entire quantity of installed capacity (ICAP) MWs that you intend to offer for the resource) or you may divide the quantity of ICAP MWs that you intend to offer for such resource into a maximum of 10 offer segments with varying price-quantity pairs. The total sum of the Max MW amounts in the offer segments specified must not exceed the Maximum Available ICAP position of the resource. The RPM Auction will only clear those offer segments that are economical (those segments with an offer price that is less than or equal to the auction's relevant resource clearing price.)

Effective for the 2018/2019 and 2019/2020 Delivery Years, 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.

22. For the 2019/2020 Delivery Year, am I required to submit a 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.

23. For the 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 portion of the sell offer segment must be at least \$0.01/MW-day greater than the sell offer price of the Base portion of such sell 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.

24. For the 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.

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

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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.

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

Prior to any Reliability Pricing Model Auction, RPM suppliers must confirm the modeling of each of their capacity resources in the Capacity Exchange system. RPM suppliers must verify the following characteristics for generation, Demand Resources, and Energy Efficiency Resources for which they have a positive Available ICAP position for the RPM Auction: zone assignment, LDA assignment, product type, CP capability (2018/2019 and 2019/2020 Delivery Years), and seasonal eligibility (2020/2021 Delivery Year and beyond) on the Resource Confirmation screen. 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 Capacity Exchange User Guide posted on the PJM tools Capacity Exchange Web page at <https://www.pjm.com/-/media/etools/capacity-exchange/capacity-exchange-user-guide.ashx?la=en>.

27. How can I confirm that my sell offer has been successfully submitted in the Capacity Exchange system?

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

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

Buy Bid Questions

28. If I am projected to have a short resource position, must I submit a buy bid in an Incremental Auction?

There is no mandatory buy bid requirement. A market participant may submit buy bids in Incremental Auctions regardless of their projected resource position, but is not required to do so.

29. Am I required to submit my buy bid as 10 bid segments?

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No. You may submit your buy bid as a single segment (a single price quantity in \$/MW-day (in unforced capacity (UCAP) terms) that you are willing to pay for the entire quantity of UCAP MWs desired) or you may divide the quantity of UCAP MWs desired into a maximum of 10 bid segments with varying price-quantity pairs. The Reliability Pricing Model Auction will only clear those bid segments in your buy bid that are economical (those segments with a bid price that is greater than or equal to the auction's relevant resource clearing price.)

30. How can I confirm that my buy bid has been successfully submitted in the Capacity Exchange system?

If you click the "Refresh" button on the Capacity Bids screen in the Capacity Exchange system and the bid data that you entered is displaying in the bid segments, your bid has been successfully submitted in the Capacity Exchange system.

You may also download this information by clicking "CSV" or "XML" download link on the Capacity Bids screen in the Capacity Exchange system.

31. How can I use a cleared buy bid from an Incremental Auction?

A cleared buy bid from an Incremental Auction for the Delivery Year may be used as replacement capacity during such Delivery Year through the use of a Replacement Capacity Transaction. A cleared buy bid may also be transferred to another party in a Cleared Buy Bid Transaction. For further details on Replacement Capacity Transactions and Cleared Buy Bid Transactions, please see the PJM Capacity Market Manual (M-18), <http://www.pjm.com/~media/documents/manuals/m18.ashx>, and the Capacity Exchange User Guide, <https://www.pjm.com/-/media/etools/capacity-exchange/capacity-exchange-user-guide.ashx?la=en>.

All buy bids submitted into an Incremental Auction must designate the type of unforced capacity desired, i.e., (a) Base Generation, Base DR/EE, or Capacity Performance (2019/2020 Delivery Year); or (b) Capacity Performance (effective 2020/2021 Delivery Year).

Cleared buy bids of the Capacity Performance UCAP type may replace commitments on Capacity Performance Resources, Base Generation Resources, and/or Base DR/EE Resources. Cleared buy bids of the Base Generation UCAP type may replace commitments on Base Generation Resources and/or Base DR/EE Resources. Cleared Buy Bids of the Base DR/EE UCAP type may replace commitments on Base DR/EE Resources.