

4.7.1 Resource Position for Generation Capacity Resources

A party's Daily Generation Capacity Resource Position in unforced capacity terms is calculated dynamically by the Capacity Exchange system for each unit and is equal to the party's Daily ICAP Owned on a unit multiplied by one minus the unit's Effective EFORD.

A party's Daily ICAP Owned on a unit is calculated by adding the ICAP Value of a unit as determined by a party's approved Capacity Modifications to ICAP amounts transacted through a party's approved unit-specific bilateral sales/purchases. The Installed Capacity (ICAP) Value of a unit is determined in accordance with ***PJM Manual for the Rules and Procedures for the Determination of Generating Capability (M-21)***. For an ELCC Resource, the term "ICAP" in this manual refers to the lesser of the Accredited UCAP or the resource's CIRs. Effective with the 2020/2021 Delivery Year, the ICAP value of a Winter-Period Capacity Performance Resource is based on an Intermittent or Environmentally Limited Resource's certified Capacity Interconnection Rights for the winter period of the Delivery Year.

A unit that is in a party's Generation Capacity Resource portfolio may be traded bilaterally if the party has Daily Available ICAP to offer from the unit for the entire term of the bilateral unit-specific transaction. If the Daily Available ICAP for the unit varies for the term of the bilateral unit-specific transaction, only the minimum Daily Available ICAP may be sold in the bilateral unit-specific transaction.

For a party, the Daily Available ICAP on a unit is equal to Daily ICAP Owned – Daily Unoffered ICAP - (Daily RPM Resource Commitments/(1-Effective EFORD)) – Daily FRR Capacity Plan Commitments.

$$\begin{aligned} \text{DailyAvailICAP}_{GEN} = & \\ & \text{DailyICAP}_{Owned} - \text{DailyUnofferICAP} - \\ & \left(\frac{\text{DailyRPMResourceCommitments}}{1 - \text{EffectiveEFORD}} \right) - \text{DailyFRRCommitments} \end{aligned}$$

A unit that is in a party's Generation Capacity Resource portfolio may be offered into RPM Auctions if the party has available capacity to offer from the unit for the entire term of the RPM Auction Year. Effective with the 2020/2021 Delivery Year, a Seasonal Capacity Performance Resource may be offered into RPM Auctions if the party has available capacity to offer from the unit for the entire summer/winter season. For each RPM Auction, PJM will calculate a Current Available ICAP Position, Minimum Available ICAP Position, and Maximum Available ICAP Position.

A party's Current Available ICAP Position on a unit for an RPM Auction is equal to the minimum Daily Available ICAP for such unit during the entire Delivery Year or summer/winter season.

$$\text{CurrentAvailableICAPPosition}_{GEN} = \text{Min}(\text{DailyAvailableICAP}_{GEN})$$

A party's Minimum Available ICAP Position represents the minimum amount that must be offered into an RPM Auction for entire Delivery Year or summer/winter season. A party's Minimum Available ICAP Position on a unit for an RPM Auction is equal to the *minimum* Daily Minimum Available ICAP for such unit during the entire Delivery Year or summer/winter season.

$$\text{MinAvailableICAPPosition}_{GEN} = \text{Min}(\text{DailyMinAvailableICAP}_{GEN})$$

A party's Daily Minimum Available ICAP is equal to Daily ICAP Owned minus the Daily Unoffered ICAP minus Daily Cleared ICAP in RPM Auctions minus Daily FRR Capacity Plan Commitments. Daily Cleared UCAP in RPM Auctions is converted to Daily Cleared ICAP using the greater of the EFORD_{1 yr} at the time of the Base Residual Auction, EFORD_{5 yr} at the time of the Base Residual Auction, or the party's Sell Offer EFORD from the Base Residual Auction.

$$\begin{aligned} \text{DailyMinAvailICAP}_{GEN} = & \\ & \text{DailyICAPOwned} - \text{DailyUnofferICAP} \\ & - \left[\frac{\text{DailyClearedUCA}}{(1 - \text{Max}(\text{BRA EFORD}_{1\text{yr}}, \text{BRA EFORD}_{5\text{yrs}}, \text{BRA SellOfferEFORD}))} \right] \\ & - \text{DailyFRRCommitments} \end{aligned}$$

A party's Maximum Available ICAP Position represents the maximum amount that a participant may offer into an RPM Auction for entire Delivery Year or summer/winter season. A party's Maximum Available ICAP Position on a unit for an RPM Auction is equal to the *minimum* Daily Maximum Available ICAP for such unit during the entire Delivery Year or summer/winter season.

$$\text{MaxAvailableICAPPosition}_{GEN} = \text{Min}(\text{DailyMaxAvailableICAP}_{GEN})$$

A party's Daily Maximum Available ICAP is equal to Daily ICAP Owned minus the Daily Unoffered ICAP minus Daily Cleared ICAP in RPM Auctions minus Daily FRR Capacity Plan Commitments. Daily Cleared UCAP in RPM Auctions is converted to Daily Cleared ICAP using a zero EFORD.

$$\begin{aligned} \text{DailyMaxAvailICAP}_{GEN} = & \\ & \text{DailyICAPOwned} - \text{DailyUnofferICAP} - \left[\frac{\text{DailyClearedUCAP}}{(1-0)} \right] \\ & - \text{DailyFRRCommitments} \end{aligned}$$

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

A party's Daily Unoffered ICAP for a specific unit is calculated by adding the sum of any Daily

Unoffered ICAP for such unit in RPM Auctions to Daily Unoffered ICAP amounts transacted through a party's approved unit-specific bilateral sales/purchases.

$$\text{DailyUnofferICAP}_{GEN} =$$

$$\text{DailyUnofferICAP}_{RPM\text{Auction}} + \text{DailyUnofferICAP}_{\text{BilateralSales/Purchases}}$$

For an RPM Auction, a party's Daily Unoffered ICAP for a generation resource is equal to the party's Minimum Available ICAP Position minus the Offered ICAP in the party's sell offer. Effective with the 2020/2021 Delivery Year, the Daily Unoffered ICAP for Capacity Storage Resources, Intermittent Resources, Hybrid Resources consisting exclusively of components that in isolation would be Intermittent Resources or Capacity Storage Resources, and Environmentally-Limited Resources is not applicable since these resources are not subject to a Capacity Performance must offer requirement.

$$\text{DailyUnofferICAP}_{GEN} = \text{MinAvailableICAPPosition}_{GEN} - \text{OfferedICAP}$$

A party's Daily RPM Resource Commitments for a specific generating unit are calculated by adding the sum of any UCAP Cleared plus UCAP Makewhole for such unit in RPM Auctions to decreases/increases of RPM Resource Commitments due to approved unit-specific bilateral sales/purchases of cleared capacity, the specification of replacement resources, and increases of RPM Resource Commitments due to approved Locational UCAP transactions.

A party's Daily FRR Capacity Plan Commitments for a specific unit are equal to the total amount of installed capacity that was committed from the unit for the FRR Capacity Plan.

A party's Daily RPM Generation Capacity Resource Position for a specific unit is equal to the (Daily ICAP Owned – Daily FRR Capacity Plan Commitments – Daily Unoffered ICAP)*(1- Effective EFORD).

$$\text{DailyRPMPosition}_{GEN} =$$

$$(\text{DailyICAPOwned} - \text{DailyFRRCommitments} - \text{DailyUnofferICAP}) * (1 - \text{EffectiveEFORD})$$

During the Delivery Year, a party's Daily RPM Generation Capacity Resource Position is compared to their Daily RPM Resource Commitments for the generating unit to determine if a Capacity Resource Deficiency Charge is to be assessed.

5.4.1 Resource-Specific Sell Offer Requirements

Sell Offers for the Base Residual and Incremental Auctions must be submitted in PJM's Capacity Exchange system. Sell offers are only accepted during a fixed bidding window which is open for at least five (5) business days. The bidding window for a Base Residual Auction and Incremental Auctions will be posted on the PJM website. Sell offers may not be changed or withdrawn after the bidding window for a Base Residual Auction or Incremental Auction is closed.

The following are business rules that apply to Resource-Specific Sell Offers:

- The smallest increment that may be offered into any auction is 0.1 MW
- A resource-specific sell offer will specify, as appropriate:
 - o Specific Generating Unit, Demand Resource, Energy Efficiency Resource, or Aggregate Resource
 - o With the exception of Intermittent Resources, and Capacity Storage Resources, and Hybrid Resources consisting exclusively of components that in isolation would be Intermittent Resources or Capacity Storage Resources, each Generation Capacity Resource with available capacity that is capable or can reasonably become capable of qualifying as a Capacity Performance Resource must submit a Capacity Performance sell offer segment.
 - ELCC Resources may not offer or otherwise provide UCAP MW quantities above their Capacity Interconnection Rights.
 - Intermittent Resources are generation capacity resources with output that can vary as a function of its energy source, such as wind, solar, landfill gas, run of river hydroelectric power and other renewable resources. An acceptable method for determining the quantity of unforced capacity MWs that may offer as Capacity Performance for an intermittent resource is based on calculating the average of the hourly output (MWh) of the intermittent resource during the expected performance hours in the summer and winter. The expected performance hours in the summer are hours ending 15:00 through 20:00 EPT in the months of June, July, and August. The expected performance hours in the winter are hours ending 6:00 through 9:00 EPT and 18:00 through 21:00 EPT in the months of January and February. Notwithstanding the above, PJM may review and accept alternative proposed methods for determining the quantity of unforced capacity MWs that may be offered as Capacity Performance for an Intermittent resource.
 - Capacity Storage Resources shall mean any Energy Storage Resource ²⁵ that participates in the Reliability Pricing Model or is otherwise treated as capacity in PJM's markets such as through a Fixed Resource Requirement Capacity Plan. An acceptable method for determining the quantity of unforced capacity MWs that may offer as Capacity Performance for a Capacity Storage Resource is based on calculating the average of the hourly output (MWh) of the intermittent resource during the expected performance hours in the summer and winter. The expected performance hours in the summer are hours ending 15:00 through 20:00 EPT in the months of June, July, and August. The expected performance hours in the winter are hours ending 6:00 through 9:00 EPT and 18:00 through

²⁵ Energy Storage Resource shall mean a resource capable of receiving electric energy from the grid and storing it for later injection to the grid that participates in the PJM Energy, Capacity, and Ancillary Services markets as a Market Participant.

21:00 EPT in the months of January and February.

- Notwithstanding the above, for the 2023/24 Delivery Year and subsequent Delivery Years, ELCC Resources may not offer or otherwise provide UCAP MW quantities above their Accredited UCAP.
- o Exceptions to the capacity performance must-offer requirement will be permitted for a generation capacity resource which the Capacity Market Seller demonstrates is reasonably expected to be physically incapable of satisfying the requirements for a Capacity Performance Generation Resource by the start of the Delivery Year. The Seller must submit a request for an exception (with all supporting information) no later than 120 days before the offer window opens for the relevant RPM Auction.
 - Effective with the 2023/2024 Delivery Year, Capacity Market Sellers seeking an exception for a BRA on the basis that the resource is incapable of meeting the Capacity Performance Resource requirements shall include a documented plan with the submission of their exception request showing the steps the Capacity Market Seller intends to pursue for the resource to become physically capable of satisfying the requirements of a Capacity Performance Resource, and provide periodic updates on the progress of such plan in accordance with Tariff, Attachment DD, section 6.6A(c).
- o Capacity Market Sellers may specify multiple auctions in a written must-offer exception request (with all supporting documentation) to be reviewed by the IMM and PJM with each applicable auction. Capacity Market Sellers must notify PJM and the IMM of any material changes related to the request up through the closing of the relevant auction(s) offer window.
 - When multiple auctions are specified in the written request, Capacity Market Sellers should continue to create a new request in the IMM's online system (MIRA) for each relevant subsequent auction and confirm that the documentation represents the best, current information.
- A generation resource that can qualify as Capacity Performance product type, but requires substantial investment to do so, is not excused from the capacity performance must-offer requirement.
- Intermittent Resources, Capacity Storage Resources, Hybrid Resources consisting exclusively of components that in isolation would be Intermittent Resources or Capacity Storage Resources, Demand Resources, and Energy Efficiency Resources are not required to submit a Capacity Performance sell offer segment.
- Minimum and maximum amount of installed capacity offered in MWs for the resource by Capacity Performance (annual) Offer Segment and Maximum amount of installed capacity offered in a Seasonal (summer or winter) Capacity Performance Offer Segment. The Seasonal Capacity Performance Offer Segment is considered a flexible offer segment with a minimum MW quantity set to zero MW. (Effective with the 2020/2021 Delivery Year). For ELCC Resources, the ICAP MW quantity specified shall represent the UCAP MW quantity to be offered.
- Offer Segment price willing to receive in \$/MW-day (in UCAP terms)
- Regular Schedule, Self-Schedule or Flexible Self-Schedule flag
- EFORd to apply to the offered MWs (only applicable in the Base Residual Auction, First Incremental Auction, and Second Incremental Auction) for generation resources. For

ELCC Resources, the EFORd component of the offer is not applicable.

- New Unit Pricing participation flag for Planned Generation Capacity Resources requesting New Unit Pricing Adjustment.
- The ICAP MW quantity specified in the Offer Segment will be converted into an UCAP MW quantity by the sell offer EFORd for use in the auction clearing. The sell offer price specified in the Offer Segment is in UCAP terms and will not be converted for use in the auction clearing. For ELCC Resources, the EFORd component of the offer is not applicable, and the ICAP MW quantity specified shall represent the UCAP MW quantity to be offered.
- A Capacity Performance (annual), or Seasonal Capacity Performance Offer Segment may be offered as either a single price quantity for the capacity of the resource or divided into up to ten offer blocks with varying price-quantity pairs that represent various segments of capacity from the resource. The Offer Segment will consist of block segments at the specified price-quantity pairs.
- The seller specifies the EFORd to apply if participating in a Base Residual Auction, First Incremental Auction, or Second Incremental Auction.
- The EFORd cannot exceed the greater of the EFORd calculated based on outage data for 12 months ending September 30th prior to the Base Residual Auction, the 5 Year Average EFORd based on outage data for 12 months ending September 30th prior to the Base Residual Auction, or the EFORd submitted by the market participant in their Base Residual Auction Sell Offer.
- The EFORd applied to the Third Incremental Auction will be determined by PJM using the forced outage data for the 12 months ending on September 30 prior to the relevant Delivery Year. The seller is willing to accept the clearing of any amount equal to or greater than the minimum MW amount offered and equal to or less than the maximum MW offered.
- If the self-scheduled flag is enabled in the Base or Capacity Performance Offer segment, the sell offer price must be set to zero and the minimum and maximum amounts specified in the sell offer must be equal.
- The acceptance of the sell offer is based on the party's Maximum Available ICAP Position for the Delivery Year at the opening of the auction's bidding window. Effective with the 2020/2021 Delivery Year, the acceptance of the sell offer is based on the party's Maximum Available ICAP Position for the entire Delivery Year (annual position) if Capacity Performance Resource, Maximum Available ICAP Position for summer period (summer position) if Summer-Period Capacity Performance Resource, Maximum Available ICAP Position for winter period (winter position) if Winter-Period Capacity Performance Resource.
- Effective with the 2020/2021 Delivery Year, the total MWs offered across all Capacity Performance offer segments may not exceed the Maximum Available ICAP Position for the Delivery Year (i.e., the annual position). The total MWs offered across the Capacity Performance offer segments and the Seasonal Capacity Performance-Summer offer segments may not exceed the Maximum Available ICAP Position for summer period (i.e., the summer position). The total MWs offered across the Capacity Performance offer segments and the Seasonal Capacity Performance-Winter offer segments may not exceed the Maximum Available ICAP Position for winter period (i.e., the winter position).
- If a participant has a zero or negative Maximum Available ICAP Position, PJM will reject the sell offer.

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- A sell offer in an RPM Auction that violates any “Conditions on Sales by FRR Entities” as presented in the FRR Business Rules will be rejected.
 - For Planned Resources and external resources without firm transmission, sell offers for which the RPM Credit Requirement exceeds the credit available will be rejected.
 - For RPM Auctions conducted prior to September 2, 2021, a generation resource’s default sell offer cap for any capacity performance offer segment shall be the product of the historical balancing ratio times the Net CONE of the zonal LDA in which the resource resides. Market Sellers may qualify to submit a sell offer price above the default offer cap for a capacity performance offer segment by submitting Avoidable Cost Rate data to IMM and PJM 120 days prior to the RPM Auction. For RPM Auctions conducted after September 2, 2021, a Capacity Market Seller submitting a sell offer for an existing Generation Capacity Resource greater than \$0/MW-Day must seek a unit-specific exception request for such sell offer by submitting Avoidable Cost Rate data to IMM and PJM 120 days prior to the RPM Auction, or may, at its election, utilize an offer cap based on the default gross Avoidable Cost Rate of the applicable resource type, if available. For any Third Incremental Auction, a Capacity Market Seller submitting a sell offer for an existing Generation Capacity Resource may elect to use a default offer cap equal to 1.1 times the Resource Clearing Price in the Base Residual Auction of the relevant LDA and Delivery Year.
 - All sell offers for a supplier that fails the Three-Pivotal Supplier Test will be capped within the mitigated LDA
 - Prior to the 2020/2021 Delivery Year, cleared sell offers and offers receiving Make-Whole payments are binding commitments to provide capacity for the entire Delivery Year.
 - Effective with the 2020/2021 Delivery Year, cleared MWs and make-whole MWs for Capacity Performance Offer Segments are binding commitments to provide capacity for the entire Delivery Year. Cleared MWs for Seasonal Capacity Performance-Summer Offer Segments are binding commitments to provide capacity for the summer period of June through October and May of the Delivery Year. Cleared MWs for Seasonal Capacity Performance-Winter Offer Segments are binding commitments to provide capacity for the winter period of November through April of the Delivery Year.

5.7.1 Participation in the Base Residual Auction

Products that resource providers can offer into PJM's Base Residual Auction include:

- Existing Generation Capacity Resources
- Planned Generation Capacity Resources
- Existing Demand Resources
- Planned Demand Resources
- Energy Efficiency Resources
- Aggregate Resources
- Qualifying Transmission Upgrades

Existing Generation Capacity Resources in a party's RPM Resource Portfolio that have available capacity to offer and are not offered into the Base Residual Auction for the Delivery Year shall be excluded from participation in any and all Incremental Auctions conducted for the Delivery Year. Generation is treated as existing when the generation is (a) in service at the commencement of the Base Residual Auction or (b) not yet in service but has cleared in an RPM Auction for any prior Delivery Year. These unoffered MWs from existing generation resources shall be ineligible to serve as capacity resources on behalf of any RPM entity for such Delivery Year, and are therefore prohibited from receiving any RPM capacity revenues for the Delivery Year. To enforce this business rule, PJM will track Daily Unoffered ICAP amounts for generation resources.

The following are business rules that apply to the Base Residual Auction:

- Existing Generation Capacity Resources, existing Demand Resources, and Energy Efficiency Resources that have an increase in Available ICAP after the Base Residual Auction are eligible to offer the capacity increase into an Incremental Auction for the Delivery Year if the increase is approved prior to the opening of the Incremental Auction bidding window. See Section 5.8.1 for business rules regarding participation in an Incremental Auction.
- For the Base Residual Auction, a party's Current, Minimum and Maximum Available ICAP Position for a specific unit for the Delivery Year are equal to the minimum of (Daily ICAP Owned – Daily FRR Capacity Plan Commitments) for the Delivery Year.

$$AvailICAPPosition_{GEN} = Min_{DY}(DailyICAPOwned - DailyFRRCommitments)$$

Effective with the 2020/2021 Delivery Year, a party's Current, Minimum, and Maximum Available ICAP Position for a specific unit for the summer/winter season is calculated. A party's Current, Minimum, and Maximum Available ICAP Position for the summer season are equal to the minimum (Daily ICAP Owned – Daily FRR Capacity Plan Commitments) for June through October and May of the Delivery Year. A party's Current, Minimum, and Maximum Available ICAP Position for a specific unit for the winter season are equal to the minimum (Daily ICAP Owned – Daily FRR Capacity Plan Commitments) for November through April of the Delivery Year.

- Following a Base Residual Auction, a party's Daily Unoffered ICAP for a generation resource is calculated and is equal to the Available ICAP Position minus the Offered ICAP in the party's sell offer. Effective with the 2020/2021 Delivery Year, the Daily Unoffered ICAP for Capacity Storage Resources, Intermittent Resources, Hybrid Resources consisting exclusively of components that in isolation would be Intermittent Resources or Capacity Storage Resources, and Environmentally-Limited Resources is

not applicable since these resources are not subject to a Capacity Performance must offer requirement.

$$\text{DailyUnofferICAP}_{GEN} = \text{AvailICAPPosition}_{GEN} - \text{OfferedICAP}$$

- A Demand Resource's Available ICAP to offer into a Base Residual Auction is determined based on pre-registration confirmation process in the Capacity Exchange system for such Base Residual Auction and PJM's approval of the Curtailment Service Provider's DR Sell Offer Plan for such Base Residual Auction. A Demand Resource's Existing Available ICAP is determined based on the CSP's completion of the pre-registration process and the DR Existing Setup process in the Capacity Exchange system. A Demand Resource's Planned Available ICAP is determined based on PJM's approval of planned MWs in the CSP's DR Sell Offer Plan and the CSP's completion of the DR Planned Setup process in the Capacity Exchange system. A Demand Resource's Available ICAP is equal to the Existing Available ICAP and Planned Available ICAP. Effective with the 2020/2021 Delivery Year, a Demand Resource's Existing Available ICAP and Planned Available ICAP is further classified by the CSP in the DR Existing/Planned Setup process as MWs intend to offer as Annual Capacity Performance, MWs intend to offer as Summer-Period Capacity Performance, and MWs intend to offer as part of Aggregate Resource. Such classification is used to establish the maximum Existing/Planned Available ICAP that may be offered as Capacity Performance (annual) and maximum Existing/Planned Available ICAP that may be offered as Seasonal Capacity Performance (summer).
- An EE Resource's Available ICAP to offer into a Base Residual Auction is determined based on PJM's approval of the provider's Initial/Updated M&V Plan for such Base Residual Auction and the provider's completion of the EE Setup process in the Capacity Exchange system prior to the Base Residual Auction. An EE Resource's Existing Available ICAP is determined based on Nominated EE Value approved by PJM in the most recent Post-Installation M&V Report and the EE Provider's completion of the EE Existing Setup process in the Capacity Exchange system. An Energy Efficiency Resource's Planned Available ICAP is determined based on PJM's approval of the provider's Initial/Updated M&V Plan for such Base Residual Auction and the provider's completion of the EE Planned Setup process for such Base Residual Auction in the Capacity Exchange system. An EE Resource's Available ICAP to offer into an RPM Auction is equal to the Existing Available ICAP and Planned Available ICAP. Effective with the 2020/2021 Delivery Year, an Energy Efficiency Resource's Existing Available ICAP and Planned Available ICAP is further classified by the EE Resource Provider in the EE Existing/Planned Setup process as MWs intend to offer as Annual Capacity Performance, MWs intend to offer as Summer-Period Capacity Performance, and MWs intend to offer as part of an Aggregate Resource. Such classification is used to establish the maximum Existing/Planned Available ICAP that may be offered as Capacity Performance (annual) and maximum Existing/Planned Available ICAP that may be offered as Seasonal Capacity Performance (summer).
- Resources may be directly offered into the Base Residual Auction by specifying a MW quantity and sell offer price in the sell offer or may be self-scheduled into the Base Residual Auction by enabling the self-schedule flag in the sell offer. See the Resource-Specific Sell Offer Requirements Section for further details.
- The product offered in the Base Residual Auction must be resource-specific or apply to a Qualifying Transmission Upgrade.
- The smallest increment that may be offered into a Base Residual Auction is 0.1 MW.

5.8.1 Participation in the Incremental Auctions

Existing Generation Capacity Resources in a party's RPM Resource Portfolio that have available capacity to offer and are not offered into an Incremental Auction for the Delivery Year shall be excluded from participation in any subsequent Incremental Auctions conducted for the Delivery Year. Generation is treated as existing when the generation is (a) in service at the commencement of the Incremental Auction or (b) not yet in service but has cleared an RPM Auction for any prior Delivery Year. These unoffered MWs from existing generation shall be ineligible to serve as capacity resources on behalf of any entity for such Delivery Year, and are therefore prohibited from receiving any RPM capacity revenues for the Delivery Year. To enforce this business rule, PJM will track Daily Unoffered ICAP amounts of generation resources.

Products that resource providers can offer into an Incremental Auction include:

- Existing Generation Capacity Resources that were offered and not cleared in a prior auction for the same Delivery Year
- Planned Generation Capacity Resources
- Existing Demand Resources or Energy Efficiency Resources that were offered and not cleared in a prior auction for the same Delivery Year
- Planned Demand Resources or Energy Efficiency Resources
- Transmission upgrades are not eligible to be offered into Incremental Auctions. (Transmission upgrades are only eligible to be offered into Base Residual Auction)

The following are business rules that apply to the Incremental Auctions:

- The product offered in the Incremental Auction must be resource-specific.
- The smallest increment that may be offered into an Incremental Auction is 0.1 MW.
- Planned Generation Capacity Resources, Planned Demand Resources, or Energy Efficiency Resources that were not eligible to participate at the time of the Base Residual Auction or prior Incremental Auction, are eligible to participate in subsequent Incremental Auctions if the planned generation, Planned Demand Resource, or Energy Efficiency Resource meets the requirements specified in Section 4 of this manual.
- Existing Generation Capacity Resources and existing Demand Resources or Energy Efficiency Resources that have increases in Available ICAP after an Incremental Auction are eligible to offer the capacity increase into a subsequent Incremental Auction for the Delivery Year if the Available ICAP increase is approved prior to the opening of the subsequent Incremental Auction bidding window.
- For Incremental Auctions, a Current Available ICAP Position, Minimum Available ICAP Position, and Maximum Available ICAP Position are calculated for generation resources. An Available ICAP Position is also determined for demand resources and energy efficiency resources that intend to offer into such Incremental Auction. Effective with the 2020/2021 Delivery Year, these Available ICAP positions are determined for annual period and for summer/winter period if Seasonal Capacity Performance Resource.

A party's Current Available ICAP Position on a unit for an Incremental Auction is equal to the minimum Daily Available ICAP for such unit during the Delivery Year or during summer/winter season.

$$CurrentAvailableICAPPosition_{GEN} = Min (DailyAvailableICAP_{GEN})$$

For a party, the Daily Available ICAP on a unit is equal to Daily ICAP Owned – Daily Unoffered ICAP – (Daily RPM Resource Commitments/(1-Effective EFORD)) – Daily FRR Capacity Plan Commitments.

$$\begin{aligned} \text{DailyAvailICAP}_{GEN} = \\ \text{DailyICAP}_{Owned} - \text{DailyUnofferICAP} - \left(\frac{\text{DailyRPMResourceCommitments}}{1 - \text{EffectiveEFORD}} \right) \\ - \text{DailyFRRCommitments} \end{aligned}$$

A party's Minimum Available ICAP Position represents the minimum amount that must be offered into an RPM Auction. A party's Minimum Available ICAP Position on a unit for an RPM Auction is equal to the *minimum* Daily Minimum Available ICAP for such unit during the Delivery Year. Effective 2020/201 Delivery Year, a party's Minimum Available ICAP for the summer/winter season will also be calculated in the Capacity Exchange system; however, Capacity Storage Resources, Intermittent Resources, Hybrid Resources consisting exclusively of components that in isolation would be Intermittent Resources or Capacity Storage Resources, and Environmentally Limited Resources are exempt from the Capacity Performance must offer requirement.

$$\text{MinAvailableICAPPosition}_{GEN} = \text{Min} (\text{DailyMinAvailableICAP}_{GEN})$$

A party's Daily Minimum Available ICAP on a unit is equal to Daily ICAP Owned minus the Daily Unoffered ICAP minus Daily Cleared ICAP in RPM Auctions minus Daily FRR Capacity Plan Commitments. Daily Cleared UCAP in RPM Auctions is converted to Daily Cleared ICAP using the greater of the EFORD_{1 yr} at the time of the Base Residual Auction, EFORD_{5 yr} at the time of the Base Residual Auction, or the party's Sell Offer EFORD from the Base Residual Auction.

$$\begin{aligned} \text{DailyMinAvailICAP}_{GEN} = \\ \text{DailyICAP}_{Owned} - \text{DailyUnofferICAP} \\ - \left[\frac{\text{DailyClearedUCAP}}{(1 - \text{Max} (\text{BRA EFORD}_{1\text{yr}}, \text{BRA EFORD}_{5\text{yrs}}, \text{BRA SellOfferEFORD}))} \right] \\ - \text{DailyFRRCommitments} \end{aligned}$$

A party's Maximum Available ICAP Position on a unit represents the maximum amount that a participant may offer into an RPM Auction. A party's Maximum Available ICAP Position on a unit for an RPM Auction is equal to the *minimum* Daily Maximum Available ICAP for such unit during the Delivery Year or during summer/winter season (effective 2020/2021 Delivery Year).

$$\text{MaxAvailableICAPPosition}_{GEN} = \text{Min} (\text{DailyMaxAvailableICAP}_{GEN})$$

A party's Daily Maximum Available ICAP is equal to Daily ICAP Owned minus the Daily Unoffered ICAP minus Daily Cleared ICAP in RPM Auctions minus Daily FRR Capacity Plan Commitments. Daily Cleared UCAP in RPM Auctions is converted to Daily Cleared ICAP using a zero EFORD.

$$\begin{aligned} \text{DailyMaxAvailICAP}_{GEN} = \\ \text{DailyICAP}_{Owned} - \text{DailyUnofferICAP} \\ - \left[\frac{\text{DailyClearedUCAP}}{(1 - 0)} - \text{DailyFRRCommitments} \right] \end{aligned}$$

For the Third Incremental Auction, a party's Minimum Available ICAP Position and Maximum Available ICAP Position for a unit will be equal to the party's Current Available ICAP Position for such unit for the Delivery Year or for the summer/winter season

A party's Daily Unoffered ICAP for a specific unit is calculated by adding the sum of any Daily Unoffered ICAP for such unit in prior RPM Auctions to Daily Unoffered ICAP amounts transacted through a party's approved unit-specific bilateral sales/purchases. Effective with the 2020/2021 Delivery Year, the Daily Unoffered ICAP for Capacity Storage Resources, Intermittent Resources, Hybrid Resources consisting exclusively of components that in isolation would be Intermittent Resources or Capacity Storage Resources, and Environmentally-Limited Resources is not applicable since these resources are not subject to a Capacity Performance must offer requirement.

$$\begin{aligned} & \text{DailyUnofferICAP}_{GEN} \\ &= \sum (\text{DailyUnofferICAP}_{Prior\ RPM\ Auctions} + \text{UnofferICAP}_{Bilateral\ Sales/Purchases}) \end{aligned}$$

For an Incremental Auction, a party's Daily Unoffered ICAP for generation resource is equal to the Minimum Available ICAP Position minus the Offered ICAP in the party's sell offer.

$$\text{DailyUnofferICAP}_{GEN} = \text{MinAvailableICAPPosition} - \text{OfferedICAP}$$

A Demand Resource's Available ICAP to offer into an Incremental Auction is determined based on pre-registration confirmation process in the Capacity Exchange system for such Incremental Auction and PJM's approval of the Curtailment Service Provider's DR Sell Offer Plan for such Incremental Auction. A Demand Resource's Existing Available ICAP is determined based on the CSP's completion of the pre-registration process and the DR Existing Setup process in the Capacity Exchange system. A Demand Resource's Planned Available ICAP is determined based on PJM's approval of planned MWs in the CSP's DR Sell Offer Plan and the CSP's completion of the DR Planned Setup process in the Capacity Exchange system. A Demand Resource's Available ICAP is equal to the Existing Available ICAP and Planned Available ICAP. Effective with the 2020/2021 Delivery Year, a Demand Resource's Existing Available ICAP and Planned Available ICAP is further classified by the CSP in the DR Existing/Planned Setup process as MWs intend to offer as Annual Capacity Performance and MWs intend to offer as Summer-Period Capacity Performance. Such classification is used to establish the maximum Existing/Planned Available ICAP that may be offered as Capacity Performance (annual) and maximum Existing/Planned Available ICAP that may be offered as Seasonal Capacity Performance (summer).

An EE Resource's Available ICAP to offer into an Incremental Auction is determined based on PJM's approval of the provider's Initial/Updated M&V Plan for such Incremental Auction and the provider's completion of the EE Setup process in the Capacity Exchange system prior to the Incremental Auction. An EE Resource's Existing Available ICAP is determined based on Nominated EE Value approved by PJM in the most recent Post-Installation M&V Report and the EE Provider's completion of the EE Existing Setup process in the Capacity Exchange system. An Energy Efficiency Resource's Planned Available ICAP is determined based on PJM's approval of the provider's Initial/Updated M&V Plan for such Incremental Auction and the provider's completion of the EE Planned Setup process for such Incremental Auction in the Capacity Exchange system. An EE Resource's Available ICAP to offer into an RPM Auction is equal to the Existing Available ICAP and Planned Available ICAP. Effective with the 2020/2021 Delivery Year, an Energy Efficiency Resource's Existing Available ICAP and Planned Available ICAP is further classified by the EE Resource Provider in the EE Existing/Planned Setup process as MWs intend to offer for Annual period and MWs intend to offer for Summer period. Such classification is used to establish the maximum Existing/Planned Available ICAP that may be

offered as Capacity Performance (annual) and maximum Existing/Planned Available ICAP that may be offered as Seasonal Capacity Performance (summer).