

# Reliability Pricing Model Transaction Supplement

RPM Training – Appendix D  
February 2012

## The Transaction Supplement Appendix covers:

- Treatment of unit-specific transactions that start/end Mid-Delivery Year
- Capacity Modification Transactions
- DR Modification Transactions
- EE Modification Transactions
- CTR Transfer Transactions
- Auction Specific MW Transactions
- Cleared Buy Bid Transactions
- Locational UCAP Transfers

- Unit-specific transactions with a start date that does not correspond to June 1 or/and End Date that does not correspond to May 31 will result in installed capacity that may not be offered into the Base Residual Auction
  - A single party does not own the installed capacity for the entire Delivery Year.
  - This installed capacity will be tracked as Unoffered Capacity after the Base Residual Auction.

PJM has developed a process to enable the installed capacity to be offered into the Base Residual Auction for the Delivery Year.

- Each party of the unit-specific transaction that starts/ends Mid-Delivery Year must sign and submit a **Self-Schedule Authorization Form:**
  - Form authorizes PJM to self-schedule the capacity on behalf of the parties in the Base Residual Auction for the Delivery Year.
  - Must be submitted to [rpm\\_hotline@pjm.com](mailto:rpm_hotline@pjm.com) 5 business days prior to the opening of the bidding window
- Each party of the unit-specific transaction that starts/ends Mid-Delivery Year must submit **a new unit-specific transaction in eRPM:**
  - Buyer = “Self-Scheduling Coordinator (SELFSC)”
  - Must be submitted in eRPM prior to the opening of the Base Residual Auction bidding window

The capacity will be transferred into the SELFSC account for the entire Delivery Year at the time of the Base Residual Auction.

- Provided the Self-Schedule Authorization Forms are received and the required unit-specific transactions are submitted,
  - PJM will self-schedule and clear the capacity on behalf of the parties in the Base Residual Auction for the Delivery Year.
  - An EFORd equal to the Effective EFORd at the time of the Base Residual Auction will be used in the resource-specific sell offer in the Base Residual Auction.
- After the Base Residual Auction results are posted,
  - PJM will submit unit-specific transactions for Cleared MWs with “SELFSC” as the Seller to transfer capacity back to the Parties (i.e., Buyer in the unit-specific transaction) for the appropriate time periods.
  - No confirmation is required by the Buyer of the unit-specific transaction.

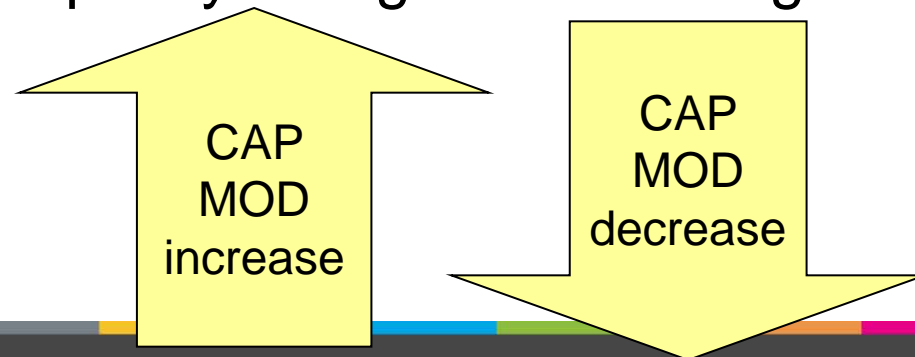
- The approved unit-specific transactions for Cleared MWs will result in the transfer of ICAP Owned, RPM Resource Commitments, and Auction Credits from the SELFSC account to the Buyer.
  - The Buyer of the Cleared MWs is responsible for any Capacity Resource Deficiency Charges that may be assessed during the term of the unit-specific transaction.
  - In addition, the Buyer of the Cleared MWs is responsible for their share of any Peak-Hour Period Availability Charges, Generation Resource Rating Test Failure Charges, or Peak Season Maintenance Compliance Penalty Charges that may be assessed during the Delivery Year.

- Capacity Modification
- DR Modification
- EE Modification
- *Unit Specific Capacity Transactions (covered in Supply Section)*
- *Replacement Capacity Transactions (covered in Performance Assessment Section)*
- CTR Transfer Transactions
- Auction Specific MW Capacity Transactions
- Cleared Buy Bid Transactions
- Locational UCAP Transactions

**Capacity Modifications (CAP MODs) are transactions in eRPM that represent the ICAP value of generation capacity resources.**

**CAP MODS enable generation owners to request:**

- A. The addition of a new unit to their resource portfolio in eRPM
- B. The removal of an existing unit from their resource portfolio in eRPM
- C. A MW increase or decrease in the summer or winter installed capacity rating of an existing unit.



- PJM will **“Provisionally Approve”** a CAPMOD when a unit meets the minimum requirements to participate in an RPM Auction or FRR Capacity Plan.
- PJM will not **“Approve”** a CAPMOD until the commercial on-line date for planned generation or the upgrade to the existing generation.

- PJM would **deny** a CAP MOD for the following reasons:
  - Unit does not have Capacity Injection Rights to support additional ICAP value
  - Planned Generation Unit fails to meet milestones
    - Example: Interconnection Service Agreement is not received prior to the First Incremental Auction
    - Example: Planned Generation Unit is not commercially online by the start of the Delivery Year

- Capacity Modifications change the value of a unit, but not the RPM Commitments on the unit.
- If the value of a unit falls short of its RPM Commitments, a penalty could be assessed during the Delivery Year, unless replacement capacity is specified to cover the commitment.

**Demand Resource Modifications (DR MODs) are transactions in eRPM that represent the ICAP value of Demand Resources.**

DR MODs allow a participant to request:

- A. The addition of a new demand resource to their resource portfolio in eRPM
- B. The removal of an existing demand resource from their resource portfolio in eRPM
- C. MW increase/decrease in nominated value of existing DR due to:
  - 1. Increase/decrease in Peak Load Contribution values
  - 2. Changes in EDC Loss Factors

- PJM will **“Provisionally Approve”** a DR MOD after a PJM review is completed to ensure that the demand resource is available for the start of the delivery year and adequate credit for a planned demand resource has been posted.
- PJM will not **“Approve”** a DR MOD until the demand resource sites have been registered and approved for the Emergency Load Response Program in the PJM Load Response system.

- PJM would **deny** a DR MOD if the DR MOD is NOT linked to Emergency Load Response registrations prior to the Delivery Year.

- DR Modifications change the value of a demand resource, but not the RPM Commitments on the demand resource.
- If the value of a demand resource fails short of its RPM Commitments, a penalty could be assessed during the Delivery Year, unless replacement capacity is specified to cover the commitment.

**Energy Efficiency Resource Modifications (EE MODs) are transactions in eRPM that represent the ICAP value of EE Resources.**

EE MODs allow a participant to request:

- A. The addition of a new EE Resource to their resource portfolio in eRPM
- B. The removal of an existing EE Resource from their resource portfolio in eRPM
- C. MW increase/decrease in nominated value of EE Resource due to:
  - 1. Changes in the number of planned installations
  - 2. Changes in the demand reduction value based on M&V activities
  - 3. Changes in EDC Loss Factors

- PJM will **“Provisionally Approve”** an EE MOD after PJM has reviewed the Initial/Updated M&V Plan, approved the Nominated EE Value, and adequate credit for the EE Resource has been posted.
- PJM will not **“Approve”** a EE MOD until PJM has reviewed the Initial/Updated Post-Installation M&V Report and approved the Final Nominated EE Value of the EE Resource.

EE MOD must be in a “Provisionally Approved” status before the opening of the RPM Auction bidding window in order to offer the associated capacity into RPM Auction.

- PJM would **“Deny”** a EE MOD if the increase in Nominated EE Value results in the total value of the EE Resource being greater than the PJM approved Nominated EE Value for the Delivery Year.

- EE Modifications change the value of an EE Resource, but not the RPM Commitments on the EE Resource.
- If the value of a EE Resource falls short of its RPM Commitments, a penalty could be assessed during the Delivery Year, unless replacement capacity is specified to cover the commitment.

- Purpose of CTR trading is to transfer the ownership of specified amount of CTR MWs in a given zone from the Seller to the Buyer.
- CTR transfers will result in the Buyer receiving the credit that would have been due to the Seller of the CTRs.

- Both the Buyer and Seller of a CTR Transfer Transaction must submit the CTR Transfer request to PJM before the following daily accounting deadlines:
  - 1:00 PM EPT (Tuesday-Friday) for transactions beginning on the previous day
  - 5:00 PM EPT (Monday) for transactions beginning on Friday, Saturday, and Sunday
  - 5:00 PM EPT (a day after the holiday) for transactions beginning on a holiday
- CTR Transfer requests must specify the buyer, seller, start and end dates of transfer, the transfer amount (in MW), and the zone from which to transfer the CTRs.
- The smallest increment of CTRs that may be transferred is 0.1 MW.

Note: This is a manual process,  
handled outside of the eRPM system

- Auction Specific MW Transactions transfer the payments associated with Cleared MWs from a specific auction from a seller to a buyer.
  - Auction Specific MW Transactions must be for the transfer of physical MW of capacity at the location of the physical resources identified as supplying the transaction.
- Auction Specific MW Transactions are priced at the weighted average of the Resource Clearing Prices from the RPM auctions in which the MW from the units supplying the transaction cleared.
- Auction Specific MW Transactions will not change the resource position or load obligation of any entity.
- Auction Specific MW Transactions are not eligible to be offered into an RPM auction or used to meet the region's UCAP obligation.

- Auction Specific MW Transactions must specify the following:
  - Buyer
  - Seller
  - Resources
  - Start and end dates
  - Amount (MW) (smallest increment = 0.1 MW)
  - Auction in which the Resource cleared
- Auction Specific MW Transactions are priced at the weighted average of the Resource Clearing Prices from the RPM auctions in which the MW from the units supplying the transaction cleared.
- Auction Specific MW Transactions cannot span multiple Delivery Years.
- Auction Specific MW Transactions can only be created after the Third Incremental Auction for the given Delivery Year has been conducted.

*PJM reserves all rights under the OA and tariff, including terminating the Auction Specific MW Transaction, in the event one of the parties fails to meet any obligations under the OA or Tariff.*

**Auction Specific MW Transaction Information**

Transaction ID: \_\_\_\_\_ Transaction Status: **(null)**

Start Day:   Stop Day:

Seller: **TEST** Buyer:

Seller Agent: **(null)** Buyer Agent: **(null)**

Average Price: **(null)** Total MW: **(null)**

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**Resources**

Resource Name	Auction Type	Price	MW	Eligible MW
A TEST GEN	BASE	174.29	5.0	65.0
A TEST GEN	BASE	174.29	(null)	65.0
A TEST GEN	BASE	174.29	(null)	45.9
A TEST GEN	BASE	174.29	(null)	49.0
A TEST GEN	BASE	174.29	(null)	44.4
A TEST GEN	BASE	174.29	(null)	44.0
A TEST GEN	BASE	174.29	(null)	47.9
A TEST GEN	BASE	174.29	(null)	47.9
A TEST GEN	BASE	174.29	(null)	10.8
A TEST GEN	BASE	174.29	(null)	13.0
A TEST GEN	BASE	174.29	(null)	13.0
A TEST GEN	BASE	174.29	(null)	44.8

All Resources with Auction commitments related to the selected start and end dates will be listed

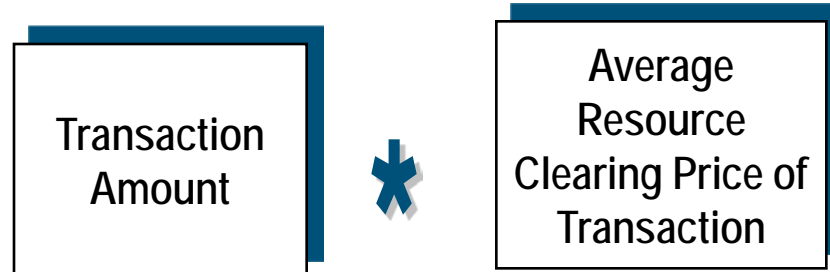
Enter in the Amount of MWs that should be transferred

After the Transaction is submitted, the Average Price and Total MWs will be calculated based on the selected resources.

Seller of an Auction Specific MW Transaction will receive a Charge =



Buyer of an Auction Specific MW Transaction will receive a Credit =



Auction Specific MW Charges/Credits will be calculated daily and billed weekly for the duration of the transaction during the Delivery Year.

- Cleared buy bid transactions allow the seller to transfer a specified amount of locational capacity procured in an Incremental Auction from one party to another.
- Transferred Buy Bids may be used as Replacement Capacity.
- Transferred Buy Bids may **not** be offered into an RPM auction.

- **Buy Bid Transactions must specify the following:**
  - Buyer           - Start and End Dates
  - Seller           - Amount (UCAP MW) (smallest increment = 0.1 MW)
  - LDA             - Auction Type
- Both parties of a buy bid transaction must confirm the transfer of buy bids from the seller to the buyer via the eRPM system prior to the start date of the transaction.
- Only buy bids that have not yet been used as replacement capacity are available to transfer.

RPM - Microsoft Internet Explorer provided by PJM Interconnection

### Cleared Buy Bid Transaction Information

Transaction ID: \_\_\_\_\_ Transaction Status: **(null)**

Start Day:  Stop Day:

Seller:  Buyer:

Seller Agent: **(null)** Buyer Agent: **(null)**

Auction:  LDA: 

- EMAAC
- RTO
- SWMAAC

Cleared MW:

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### Comments

Enter Comment:

No Comments found

### Comments History

Agent	Text	Timestamp
No transaction history found		

### Status History

Agent	Status	Timestamp
No transaction history found		

Action:

Done Local intranet

MWs should be specified in UCAP terms

Choose the applicable LDA to transfer

Seller of a Buy Bid Transaction will receive a Credit =

$$\begin{array}{|c|} \hline \text{Transaction} \\ \hline \text{Amount} \\ \hline \end{array} * \begin{array}{|c|} \hline \text{Auction Clearing} \\ \hline \text{Price Applicable} \\ \hline \text{to Auction and} \\ \hline \text{LDA} \\ \hline \end{array}$$

Buyer of a Buy Bid Transaction will receive a Charge =

$$\begin{array}{|c|} \hline \text{Transaction} \\ \hline \text{Amount} \\ \hline \end{array} * \begin{array}{|c|} \hline \text{Auction Clearing} \\ \hline \text{Price Applicable} \\ \hline \text{to Auction and} \\ \hline \text{LDA} \\ \hline \end{array}$$

Buy Bid Transaction Charges/Credits will be calculated daily and billed weekly for the duration of the transaction during the Delivery Year.

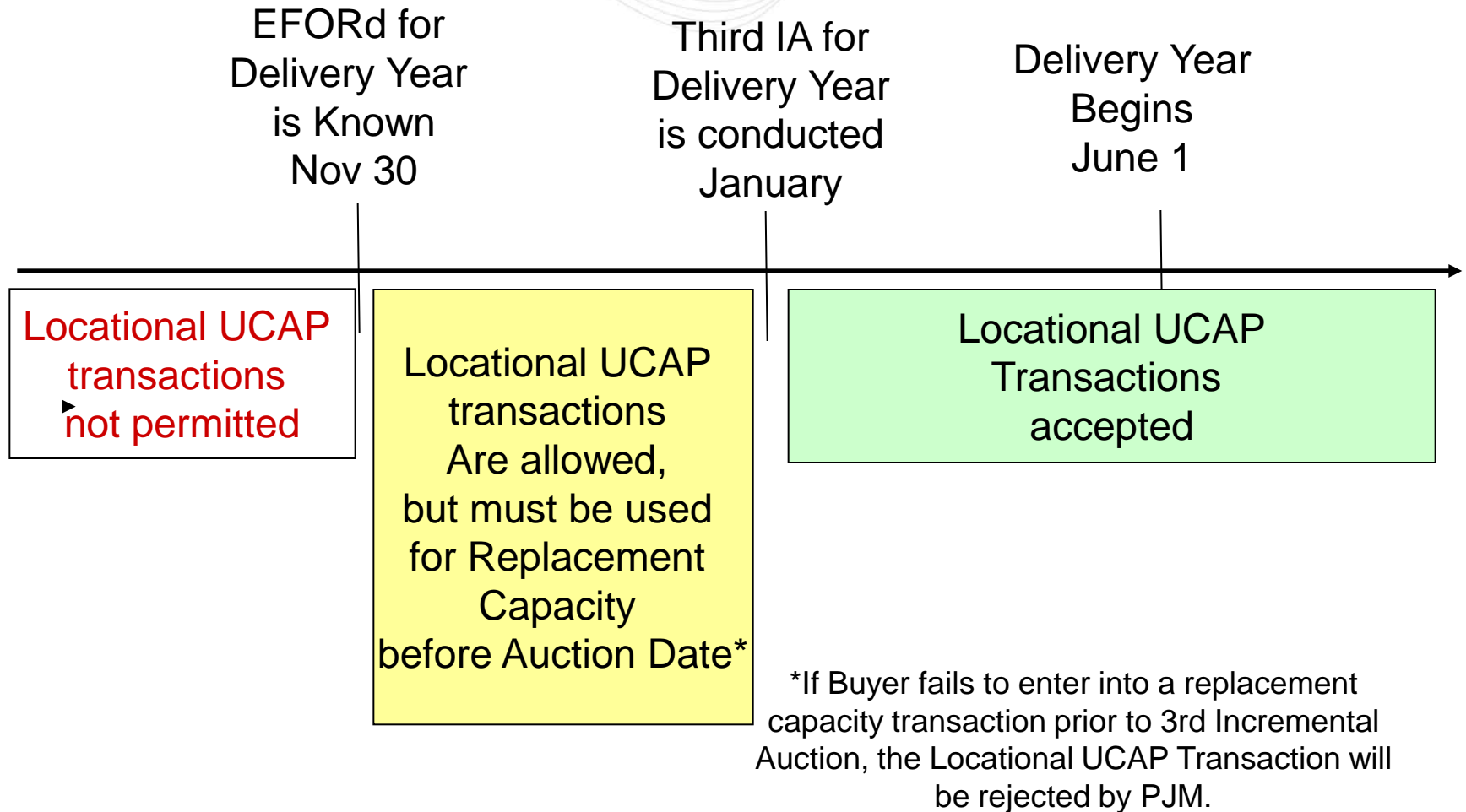
- **Definition**
  - Transaction type in RPM that allows the transfer of available capacity in a location to the Buyer, while the risk of performance penalties (for the actual unit providing the capacity) remains with the Seller
- **Difference between Locational UCAP and Unit Specific Transactions:**
  - Unit-specific transactions allow the transfer of unit-specific capacity from Seller to Buyer, but Buyer also takes on the risk of the unit incurring performance penalties (Rating Test Failure, Peak Hour Period Availability Charges, etc)
  - Locational UCAP allows the performance risk to stay with the Seller, and looks like “generic capacity at a location” to the Buyer, much like a Cleared Buy Bid from an Incremental Auction.

- **Seller**
  - Selects a particular unit's capacity to sell (unit must have Available Unforced Capacity)
  - Sees an increased unforced capacity (UCAP) commitment on that unit for the duration of the transaction
  - May incur performance penalties for that unit
- **Buyer**
  - Buys unforced capacity in a particular Locational Deliverability Area
  - May use this "Locational UCAP" as replacement capacity (similar to Cleared Buy Bids from RPM Incremental Auctions)
  - May not sell this "Locational UCAP" in an RPM auction
  - Will not incur performance penalties for the unit from which the capacity was sold as a result of this transaction

**Purpose:** To prevent withholding of capacity from the RPM Auctions

Timing	Restrictions
Prior to the locking of the DY EFORd (Nov. 30th prior to the DY)	Locational UCAP Transactions will not be accepted.
After the locking of the DY EFORd, but before the 3 <sup>rd</sup> Incremental Auction bidding window opens	1 - Locational UCAP Transactions may be approved; 2 - Buyer of the Locational UCAP must demonstrate prior to the 3 <sup>rd</sup> Incremental Auction that the Locational UCAP was used in a replacement capacity transaction. 3 - If Buyer fails to enter into a replacement capacity transaction prior to 3 <sup>rd</sup> Incremental Auction, the Locational UCAP Transaction will be rejected by PJM.
During the 3 <sup>rd</sup> Incremental Auction	Similar to Unit-specific Transactions, Locational UCAP Transactions will not be accepted.
After the 3 <sup>rd</sup> Incremental Auction results are posted	Locational UCAP Transactions will be accepted.

# Locational UCAP Timing Restrictions - Illustrated



- Locational UCAP Transaction must specify the following:
  - Buyer
  - Seller
  - Start and End dates of the transaction (cannot be retroactive)
  - Locational UCAP amount (MW)
  - LDA
- Seller must also specify a resource (generation or demand resource) with available capacity that is located in the specified LDA.
- Smallest increment that may be transacted is 0.1 MW.

Both the Buyer and Seller of Locational UCAP MWs must confirm the Locational UCAP Transaction via the eRPM system by 23:59 EPT before the start date of the transaction.