



# Reliability Backstop Procurement Design

Reliability Backstop CIFP

PJM Staff

April 16-17, 2026

**PJM will commence the reliability backstop process with a phase to allow time for and facilitate (if necessary) bilateral contracting directly with supply and load. Following this effort, a central procurement will be conducted for the remaining shortfall.**

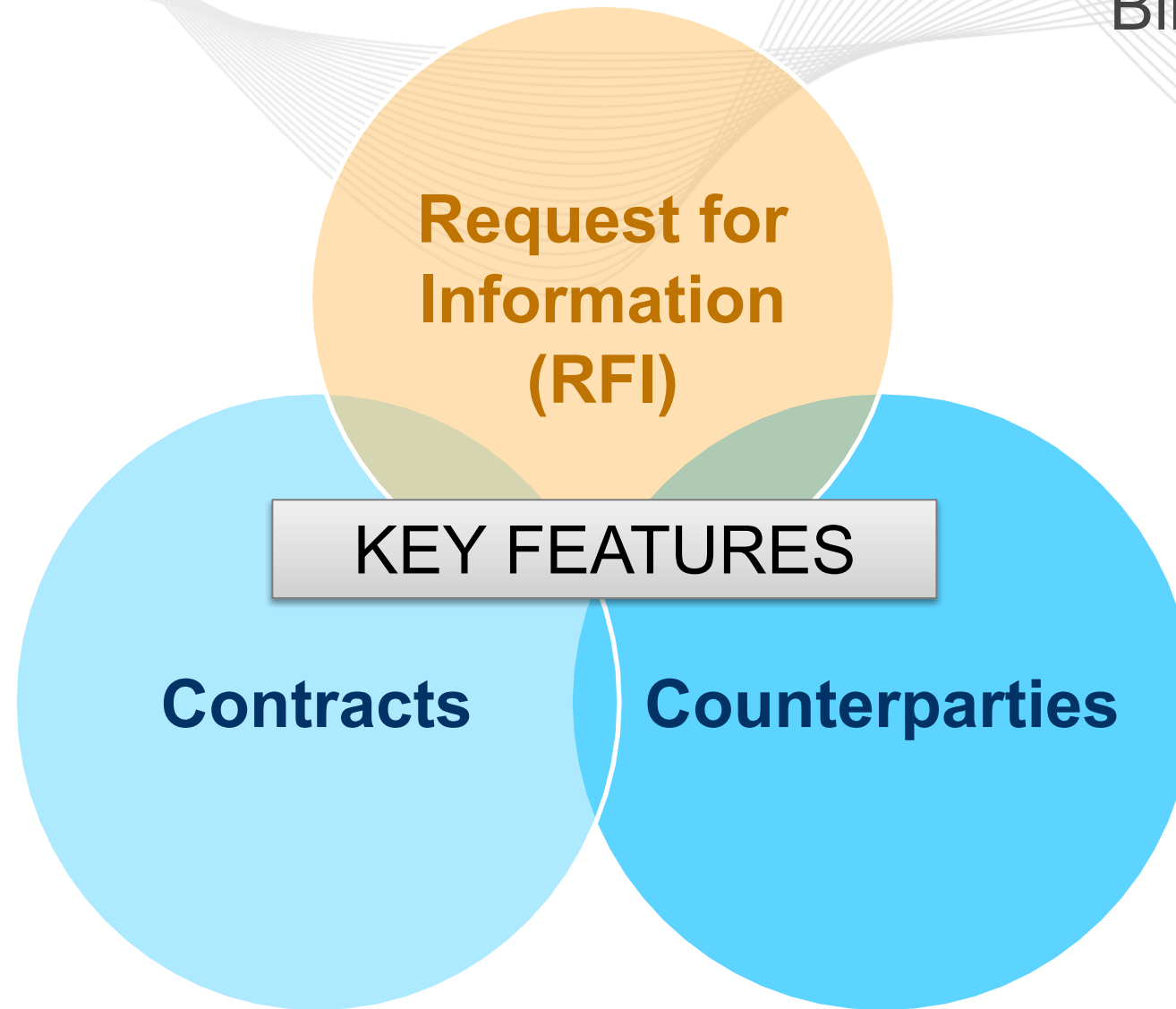
**1** **Bilateral Contracts:** PJM and Charles River Associates (CRA) will act as confidential intermediaries to provide match-making services for buyers (Load) and sellers (New Generation). Parties would then set terms and conditions and contract out of PJM's purview (no proforma agreements, no specific PJM requirements). *Parties would NOT be required to utilize PJM/CRA as intermediaries and could consummate bilateral transactions on their own.*

**Target time frame: RFI opens April 2026, bilateral period September 2026 through March 2027**

*PJM does not have direct experience engaging in bilateral contracts. PJM was guided that the 6-month period was necessary to allow full negotiation and contract execution. PJM is seeking additional feedback from members on the proposed timeframe*

**2** **Central Procurement:** Any residual target MW not met during the bilateral phase will move to a PJM-administered central procurement.

**Target time frame: opens March 2027 (4-6 month process)**





# Request for Information (RFI)

PJM is proposing to release an RFI following the April 16 CIFP-RBP meeting. The purpose of the RFI is to allow parties to provide information to PJM on supply and demand participation and indicate interest in bilateral-contracting to provide matching criteria details.

- Parties uninterested in bilateral participation who may be interested in participating in a central procurement will have an opportunity to indicate this participation preference.

<b>Targeted Audiences</b>	
<b>Supply</b>	Generation developers, owners, investors and other supply side participants, including demand response and entities representing new resources, upgrades/uprates, repowering projects, storage resources and additionally resources capable of serving large loads
<b>Demand</b>	Large load customers (e.g., hyperscalers/data center developers, large industrials/advanced manufacturing) and/or their authorized representatives, including EDCs/LSEs submitting on behalf of one or more specific large loads.
<b>Regulatory (EDC/LSEs)</b>	Identify regulatory and tariff prerequisites that may affect the feasibility, timeline, and structure of any market-based approach to serving large, discrete load additions.

## CRA Recommendation

### Demand-Side (Load Requirement)

LSEs and Large loads / hyperscalers (directly or via LSE proxy)

- Zone / Subzone
- Start year and ramp profile
- MW requirement
- Ramp / scaling flexibility
- Load flexibility (firm vs. interruptible)
- Contract preference (PPA, toll, capacity, etc.)
- Desired contract term(s)
- Willingness to pay (high-level + range)
- Credit exposure
- Existing supply agreements

### Matching Dimensions

Location

Timing

Quantity

Operational Profile

Commercial Terms & Pricing

Development / Credit

### Supply-Side (Resource Capabilities)

All accredited resources including thermal, storage/hybrids, load relief/demand response

- Location and delivery
- Interconnection status (queue stage, etc.)
- Earliest in-service date / COD
- Development timeline risk
- Available MW
- Minimum / preferred deal size (aggregation potential)
- Accreditation
- Contract structure preferences
- Indicative pricing expectations (range, not bid)
- Term / tenor requirements
- Key development risks (e.g., permitting)
- Counterparty / credit / security requirements

This process will allow CRA to find potential parties for executing bilateral contracts.

- This will give parties opportunity to provide confidential data.
- CRA will be able to do a many-to-one matching to allow a full load or full supply to be contracted.
- These are services that are above PJM’s current bulletin board capabilities.

## Counterparties

These contracts would be direct between the load (LSE or data center) and the supply (generation or demand response) – PJM would not be a party to the contract or play any role in the negotiation of terms and conditions.

## Contracts

Once matched parties would need to determine contract terms and execute a contract outside of PJM's purview.

- Finalizing a contract is not a requirement in this process, and parties unable to contract would have the opportunity to then subsequently participate in the central procurement.
- Contract terms can be unique to the parties and include PPAs, tolling agreements, etc. – more robust contracting than the central procurement capacity only contract.

## KEY FEATURES

Procurement  
Target

Eligible Supply  
Criteria

Interconnection  
Review

Central  
Procurement  
Design

Selection  
Process

Supply  
Obligations

Cost and Risk  
Allocation

Settlement

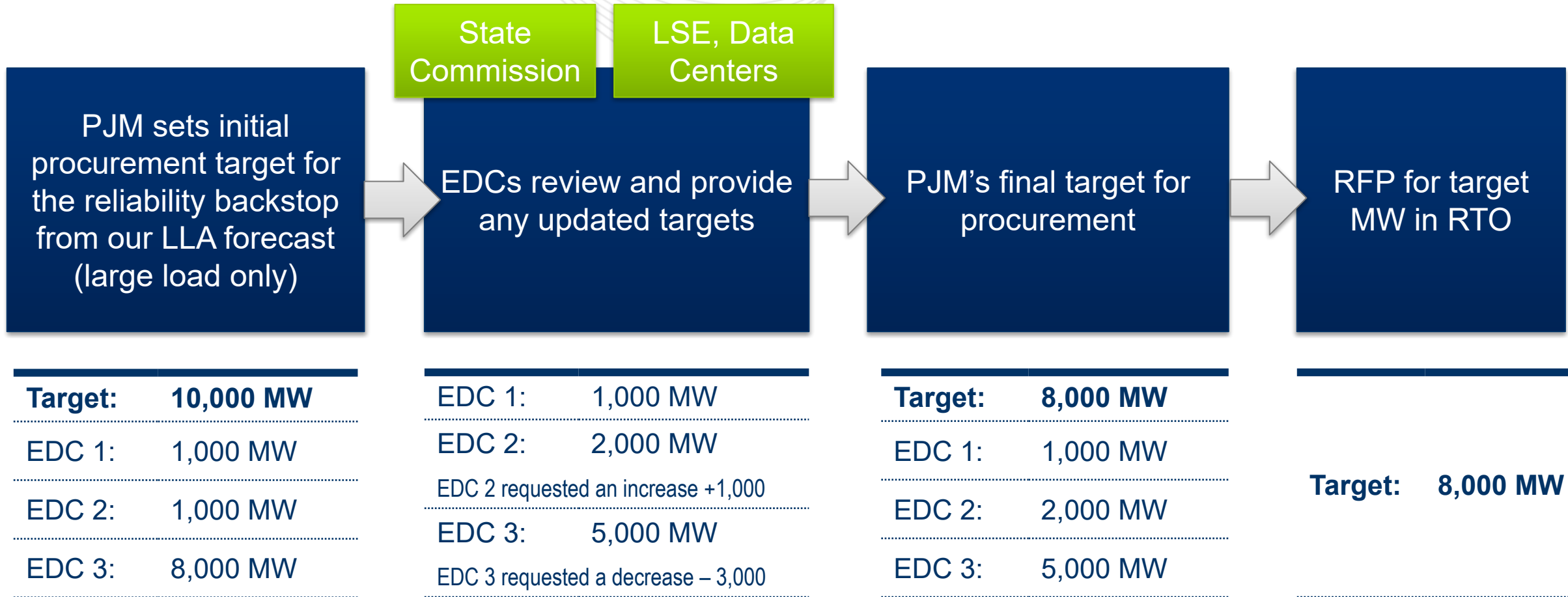
PJM will set an initial UCAP target for procurement. This procurement will be at the RTO level and broken out by zone areas based on the MW of large load that area is forecasted to serve.

- **FRR Exclusion:** FRR area will be excluded from the target procurement.
- PJM will set the initial target using 2026 Load Forecast for the estimated 2029 summer large load forecasts – 2026 summer large load forecasts.

EDCs will be requested to update this initial value with the final target procurement.

EDCs should work with their LSEs, large loads and state commissions to determine an appropriate procurement target for their area (considering bilateral contracting and C&M expectations).

**EDC Pro-Rata Allocation:** Costs will be allocated to Electric Distribution Companies (EDCs) based on their pro-rata share of the target MW.





# Initial Central Procurement Target Values

Zone Name	Area Name	Initial Target
AE		0.0
BGE	BGE	92.0
DPL		0.0
JCPL		1.0
METED		10.0
PECO	PECO	500.0
PENLC		0.0
PEPCO	Total	0.0
	PEPCO	0.0
	SMECO	0.0
PL	PPL	1,687.0
PS	PSEG	630.0
RECO		0.0
UGI		0.0
AEP	Total	3,322.3
	IM	0.0
	AEPOHIO	3,322.3
APS	Total	425.0
	PE	425.0
	WPP	0.0
	REC	0.0
ATSI	Total	299.0
	PP	18.3
	OHIO	280.7
COMED	COMED	2,619.0
DAYTON	DAY	411.0
DEOK	DEOK	0.0
DLCO		0.0
EKPC		0.0
OVEC		0.0
DOM	Total	4,866.0
	DOM	1,496.0
	NVEC	2,273.9
	ODEC	232.2
	REC	863.9
PJM RTO		14,862.3

## Initial Target MW Values are calculated using Table B-9b of the 2026 Load Forecast

- The difference between the Total Adjustments to Summer Peak Load (MW) for summer 2029 minus summer 2026 are the initial target MW values.
- PJM’s posted [Total Load Adjustments Breakdown](#) provides additional detail down to the zone area for applicable zones.

**These initial target values will change based on input from EDCs**

## “New” Resources are Eligible:

Resources that are considered “new” have not received an RPM commitment for a future delivery year

### Reliability Backstop Procurement eligible supply:

- For generation, this means new ICAP, MFO and CIRS.
  - Can include new build, uprates or repowering of deactivated generators that have retired as of April 10, 2026, generation in the queue with CIR transfers would be eligible.
- Must have a commercial operation date (COD) no later than June 1, 2031, inclusive of network upgrades.
- PJM is proposing to **exclude** delayed retirements, re-licensing, fuel switching, CIR only uprates, surplus resources.
- New Demand Response and DER are eligible, with locations that have not previously participated in PJM’s RPM. DR/DER Sell offer for the RBP would be required to provide identified locations & contracts of participating assets.

<b>Procurement</b>	Capacity Only (UCAP)
<b>Term</b>	2- to 15-year terms
<b>Network Upgrade</b>	Included in supply offer
<b>Location</b>	RTO
<b>ELCC</b>	Suppliers need to offer expected UCAP by year
<b>Clearing Price</b>	Pay as Bid
<b>Max Willingness To Pay</b>	A defined price cap with appropriate transparency is under review
<b>Settlement</b>	Contract for Differences Approach against RPM

- There will be no restriction to participation in the RBP imposed by the interconnection process.
  - For supply offers accepted in the RBP, the underlying generation project will need to proceed through the interconnection process and obtain an interconnection agreement.
    - This can include already executed agreements, TC2, the Cycle process or any other applicable parallel processes.
    - PJM is not proposing a special interconnection process to support the RBP.
- The project will be required to either reach commercial operation or seek interim deliverability for its first bid-in delivery year and all applicable subsequent delivery years of the commitment term.

- Estimated Network Upgrade costs will be determined by the developer and expected to be part of the Seller's Offer for the reliability backstop.
  - Network Upgrade costs can be determined by information provided by PJM through the normal queue process or determined independently from the planning models provided by PJM.
- The generation developer will be responsible for all actual Network Upgrade costs as determined through the interconnection process, and the commitment price will not be adjusted.

- PJM is proposing a 2-stage selection process
  - Stage 1: Gating criteria pass/fail evaluation
  - Stage 2: Selection based on average cost of capacity per UCAP over the offered term
- PJM will select resources up to the RTO target MW value in least-cost order

Backstop applicants will be required to provide evidence supporting a COD by June 1, 2031, or earlier, inclusive of expected network upgrades.

Threshold criteria aimed at validating the required COD. Resources that cannot produce this evidence of project feasibility will not pass through the gating stage:

- Critical path construction schedule showing how COD will be achieved, with attestation
- Site control for generation resources
- Identified locations and contracts for DR or DER bids
- Financing plan
- Permitting plan
- Signed memorandum for the acquisition of major equipment, invoices of or agreements to acquire major equipment, or other documentary evidence that major equipment has been procured
- Experience having constructed a previous project of similar size and technology
- Fuel delivery arrangements (if applicable)
- Project must be electrically located in or have firm transmission into PJM

Applicants will be screened based on COD feasibility and risks ahead of selection process.  
Selection of applicants will be based on average cost over the term

There will be a capacity must-offer requirement for the UCAP of the RBP commitment from the underlying supply resource for auctions conducted after procurement, for all delivery years in the backstop period (term length).

- The must-offer requirement will be to offer into each RPM auction at \$0 (price taker) and the resource will receive the capacity clearing price in each auction.
- The resource RPM committed MW will be subject to all RPM rules, including replacement and non-performance charges (deficiency charges, PAI, stop loss).

- Any UCAP not able to be delivered in a delivery year within the backstop commitment period will not be compensated for the shortfall MW for the reliability backstop commitment
- A reliability backstop resource will be subject to a shortfall charge of 20% of the RBP commitment price for all UCAP not able to be delivered when PJM is operating under a ‘connect and manage’ framework
  - When ‘connect and manage’ is no longer being allocated to large loads, the backstop resource will not be subject to a shortfall charge but will continue to not be compensated for those MWs not delivered under the backstop commitment.
  - There will be an exception to the shortfall charge for resources that are unable to meet the COD solely due to delayed network upgrades. In this case, the supply resource will need to demonstrate readiness through test energy and seeking interim deliverability to be absolved of the shortfall charge.
- No eligibility for replacement MWs for the RBP commitment.
- Failure to come online for 3 years after the first applicable committed delivery year, will rescind the RBP commitment for the remainder of the term.

Sell offers consist of **UCAP MW** and **price** for each **delivery year**.

	<b>Target = 8,000 MW</b>			
<b>Example</b>	29/30	30/31	31/32	32/33...
<b>Supply 1: 100 MW ESR</b> Term: 10 years	55 MW @ \$190	50 MW @ \$200	50 MW @ \$200	49 MW @ \$210
<b>Supply 2: 2,500 MW CC</b> Term: 15 years		2,150 MW @ \$280	2,150 MW @ \$280	2,200 MW @ \$250
<b>Total</b>	55 MW @ \$190	2,200 MW @ \$278.18	2,200 MW @ \$278.18	2,249 MW @ \$249.13

If the target is set to 8,000 MW in this example, PJM will look to procure 8,000 MW, but may procure less, dependent on available supply – this example is less than the target for illustration purposes.

**Target 8,000 MW**

EDC 1: 1,000 MW (12.5%)

EDC 2: 2,000 MW (25%)

EDC 3: 5,000 MW (62.5%)



**Procured = 2,200 MW for a given delivery year**

Supply 1: 50 MW @ \$200

Supply 2: 2,150 MW @ \$280

**Total: 2,200 MW**



**Allocated**

EDC 1: 275 MW (12.5%)

EDC 2: 550 MW (25%)

EDC 3: 1,375 MW (62.5%)

**EDC Pro-Rata Allocation:** Costs will be allocated to Electric Distribution Companies (EDCs) based on their pro-rata share of the target MW.

Note: More involved settlement examples will be discussed later in the presentation

Target	8,000 MW		Procured 50 MW for a given delivery year		Allocated
EDC 1:	1,000 MW (12.5%)	➔	Supply 1: 50 MW @ \$200	➔	EDC 1: 6.25 MW (12.5%)
EDC 2:	2,000 MW (25%)		<del>Supply 2: 2,150 MW @ \$280</del>		EDC 2: 12.5 MW (25%)
EDC 3:	5,000 MW (62.5%)		<b>Total: 50 MW</b>		EDC 3: 31.25 MW (62.5%)

**EDC Pro-Rata Allocation:** Costs will be allocated to Electric Distribution Companies (EDCs) based on their pro-rata share of the target MW.

This example illustrates the MW share allocation to the EDC, if the supply does not show up in an applicable delivery year, the MW allocation will be decreased pro-rata.

Note: More involved settlement examples will be discussed later in the presentation

**Bilateral Transfers:**  
Reliability backstop obligations will be tradable bilaterally between EDCs in Capacity Exchange.

- This allows EDCs to shift obligations to align with where the large load growth is physically occurring.
- EDCs that have delayed or canceled load growth that procured in the backstop can shift the MWs to other EDCs that may have additional MWs they are serving.
- If a bilateral is not executed, the original EDC who participated in the reliability backstop will be allocated their pro-rata share of the reliability backstop costs.

**Target 8,000 MW**

EDC 1: 1,000 MW (12.5%)

EDC 2: 2,000 MW (25%)

EDC 3: 5,000 MW (62.5%)



**Procured = 2,200 MW for a given delivery year**

Supply 1: 50 MW @ \$200

Supply 2: 2,150 MW @ \$280

**Total: 2,200 MW**



**Allocated**

EDC 1: ~~275 MW~~ 0 MW (0%)

EDC 2: ~~550 MW~~ 825 MW (37.5%)

EDC 3: 1,375 MW (62.5%)

**In this Example EDC 1 bilaterally transferred the RBP Allocation to EDC 2.**

Note: More involved settlement examples will be discussed later in the presentation

- RBP Cleared Resources that offer and clear in RPM Auctions are paid RPM Auction Credits
  - Auction Credits are allocated as Locational Reliability Charges to load based on existing allocation methodology (See [RPM Cost Allocation](#) from Feb 25 Workshop)
- Any difference between the RBP committed price and the seller's unit-specific weighted average resource clearing price (WARCP) of applicable auctions will be settled via Contract for Differences as RBP Credits
  - RBP Credits can be positive or negative depending on RPM Auction Prices
  - RBP Credits will be allocated as RBP Charges to EDCs pro-rata based on RBP target MW and can be positive or negative.

- Contract for Differences (CfD) will be settled based on the difference between the RBP commitment price and the seller's unit-specific weighted average resource clearing price (WARCP) of applicable RPM auctions for all cleared MW.
  - The MW eligible for CfD will be calculated as the lesser of a seller's RBP Cleared MW for the Delivery Year, Daily Owned MW and Daily RPM Cleared MW (all in UCAP Terms).
- UCAP MW available *above the committed RBP UCAP* are eligible to participate in RPM auctions and not subject to the RBP commitment obligations or settlement.

- The following examples are meant to illustrate how settlements for RBP commitments will flow through RPM and RBP Billing
  - They use a simple scenario of one cleared supply resource and one RBP Load and the effect RPM activity has on the RBP settlement
- Credits are expressed as positive numbers
- Charges are expressed as negative numbers

# Example #1 – Resource Settlement

*RBP Commitment = RPM Commitment*

*RBP Price > RPM Price*

RBP Clearing		
Cleared MW (UCAP)	50	
Price (\$/MW-Day)	\$200	
Expected RBP Credits	\$10,000	
RPM Clearing		
Cleared MW (UCAP)	50	
Price (\$/MW-Day)	\$75	
Settlements		
RPM Auction Credits	\$3,750	RPM Cleared MW * RPM Price
RBP Credits	\$6,250	RBP Cleared MW * (RBP Price - RPM Price)
Total Credits	\$10,000	

**The RPM Revenues are less than the expected RBP Settlement resulting in a positive RBP Credit.** The total amount paid to the RBP resource is equal to the Expected RBP Credits.

# Example #1 – Load Settlement

*RBP Commitment = RPM Commitment*

*RBP Price > RPM Price*

RBP Clearing		
Target MW (UCAP)	50	
Price (\$/MW-Day)	\$200	
Expected RBP Charges	(\$10,000)	
RPM Capacity Charges		
UCAP Obligation MW (UCAP)	50	
Final Zonal Capacity Price (\$/MW-Day)	\$75	
Settlements		
RPM Charges	(\$3,750)	UCAP Obligation MW * FZP
RBP Charges	(\$6,250)	Equal to RBP Credits
Total Charges	(\$10,000)	

**The RPM Charges are less than the expected RBP Charges resulting in a positive RBP Charge.** The total amount paid by the RBP load is equal to the Expected RBP Charges.

# Example #2 – Resource Settlement

*RBP Commitment = RPM Commitment*

*RBP Price < RPM Price*

RBP Clearing		
Cleared MW (UCAP)	50	
Price (\$/MW-Day)	\$200	
Expected RBP Settlement	\$10,000	
RPM Clearing		
Cleared MW (UCAP)	50	
Price (\$/MW-Day)	\$350	
Settlements		
RPM Auction Credits	\$17,500	RPM Cleared MW * RPM Price
RBP Credits	(\$7,500)	RBP Cleared MW * (RBP Price - RPM Price)
Total Credits	\$10,000	

**The RPM Revenues are more than the expected RBP Settlement resulting in a negative RBP Credit.** The total amount paid to the RBP resource is equal to the Expected RBP Settlement.

RBP Clearing	
Target MW (UCAP)	50
Price (\$/MW-Day)	\$200
Expected RBP Charges	(\$10,000)
RPM Capacity Charges	
UCAP Obligation MW (UCAP)	50
Final Zonal Capacity Price (\$/MW-Day)	\$350
Settlements	
RPM Charges	(\$17,500)
RBP Charges	\$7,500
Total Charges	(\$10,000)

**The RPM Charges are greater than the expected RBP Charges resulting in a negative RBP Charge.** The total amount paid by the RBP load is equal to the Expected RBP Charges.

Bilateral Contract	
Contracted MW (UCAP)	50
Contract Price (\$/MW-Day)	\$200
Expected Contract Settlement	\$10,000

Load Charge	(\$10,000)
Resource Credit	\$10,000

RPM Clearing	
Cleared MW (UCAP)	50
Price (\$/MW-Day)	\$350

RPM Capacity Charges	
UCAP Obligation MW (UCAP)	50
Final Zonal Capacity Price (\$/MW-Day)	\$350

Settlements		
RPM Auction Credits	\$17,500	RPM Cleared MW * RPM Price
RPM Charges	(\$17,500)	
Net RPM Settlement	\$0	
Net RPM and Contract Settlement	(\$10,000)	

**Contract for Differences** yields the same settlement outcome as if the RBP Load bilaterally purchased the RBP Resource via Unit Specific Bilateral Transaction and offered it directly into the auction.

# Example #3 – Resource Settlement

*RBP Commitment < RPM Commitment*  
*RBP Resource Clears in Multiple Auctions*  
*RBP Price > WARCP*

RBP Clearing		
Cleared MW (UCAP)	50	
Price (\$/MW-Day)	\$200	
Expected RBP Credits	\$10,000	
RPM Clearing		
	BRA	3rd IA
Cleared MW	50	1
Auction Price	\$75	\$20
Weighted Average RCP (WARCP)	\$73.92	
Daily Committed MW (UCAP)	51	
Daily Owned MW (UCAP)	51	

**In the event a resource clears in multiple Auctions**, the Contract for Differences will be calculated as the difference between the RBP Price and the resource’s Weighted Average Resource Clearing Price.

The total amount paid to the RBP resource is above the Expected RBP Credits due to the extra 1 MW Committed in the IA at WARCP.

Settlements		
RPM Auction Credits	\$3,770	RPM Cleared MW * RPM Price
RBP Credits	\$6,303.92	RBP Cleared MW * (RBP Price - RPM WARCP)
Total Credits	\$10,073.92	

# Example #3 – Load Settlement

*RBP Commitment < RPM Commitment*

*RBP Resource Clears in Multiple Auctions*

*RBP Price > WARCP*

RBP Clearing		
Target MW (UCAP)		50
Price (\$/MW-Day)		\$200
Expected RBP Charges		(\$10,000)
RPM Capacity Charges		
UCAP Obligation MW (UCAP)		50
Final Zonal Capacity Price (\$/MW-Day)		\$73.92
Settlements		
RPM Charges	(\$3,696.08)	UCAP Obligation MW* FZP
RBP Charges	(\$6,303.92)	RBP Credits
Total Charges	(\$10,000)	

## RPM Charges are less than the expected RBP Charges resulting in an RBP Charge.

The total amount paid by the RBP load is equal to the Expected RBP Charges. The RBP load does not pay for the additional RPM credits paid to the resource due to the IA clearing.

Example assumes additional 1 MW of Cleared UCAP in 3<sup>rd</sup> IA is allocated to a non-RBP LSE

If Connect and Manage is being allocated, the Reliability Backstop resource is subject to deficiency charges for not delivering the RBP committed UCAP

**RBP Shortfall MW** = RBP Commitment – lesser of (Daily RPM UCAP Commitment, Daily RPM UCAP Owned)

**RBP Shortfall Charge** = RBP Shortfall MW \* 20% RBP Price

RBP Shortfall Charges will be allocated as credits to EDCs based on their pro-rata share of the target MW.

RBP Resources may also be subject to overlapping RPM Commitment Deficiency Charges. *RPM Commitment Deficiency Charges are allocated as credits to RPM Load.*



# Example #4 – RBP Resource Deficiency

RBP Partial Shortfall; No RPM Shortfall

RBP Clearing	
Cleared MW (UCAP)	50
Price (\$/MW-Day)	\$200
Expected RBP Credits	\$10,000
RPM Clearing	
Cleared MW (UCAP)	50
Price (\$/MW-Day)	\$75
Daily Committed MW (UCAP)	45
Daily Owned MW (UCAP)	45

**DY Owned UCAP is lower than RBP Commitment and specify replacement capacity to decrease RPM commitment. No payments for the undelivered RBP MW, resulting in a \$625 reduction of RBP Credits [5 MW \* (RBP Price – RPM Price)].**

In addition, Resource is subject to RBP Shortfall Charge of 20% RBP Price

*Example assumes connect and manage is being allocated*

Settlements		
RPM Auction Credits	\$3,750	RPM Cleared MW * RPM Price
RPM Commitment Deficiency MW	-	Daily Committed MW – Daily Owned MW
RBP Credits	\$5,625	Daily UCAP Owned MW * (RBP Price - RPM Price)
RBP Shortfall Penalty MW	5	RBP Cleared MW - min (RPM Cleared MW, Daily Owned MW)
RBP Shortfall Charges	(\$200)	RBP Shortfall Penalty MW * 20% RBP Price
Total Credits	\$9,175	Total Settlement is less than Expected due to reduced Daily Owned MW



# Example #4 – RBP Load Allocation of Deficiency

RBP Partial Shortfall; No RPM Shortfall

RBP Clearing	
Target MW (UCAP)	50
Price (\$/MW-Day)	\$200
Expected RBP Charges	(\$10,000)
RPM Clearing	
UCAP Obligation MW (UCAP)	50
Final Zonal Capacity Price (\$/MW-Day)	\$75

**Load does not pay** for the 5 MW of undelivered RBP supply, resulting in a \$625 reduction of RBP Charges.

In addition, Load is allocated RBP Shortfall Charges collected.

*Example assumes connect and manage is being allocated*

Settlements		
RPM Charges	(\$3,750)	UCAP Obligation MW* FZP
RBP Charges	(\$5,625)	Equal to RBP Credits
RBP Shortfall Credits	\$200	Allocated RBP Shortfall Charges
Total Charges	(\$9,175)	Total Settlement is less than Expected due to non-delivery of full RBP Commitment



# Example #5 – RBP Resource Deficiency Full Shortfall

RBP Clearing	
Cleared MW (UCAP)	50
Price (\$/MW-Day)	\$200
Expected RBP Credits	\$10,000
RPM Clearing	
Cleared MW (UCAP)	49
Price (\$/MW-Day)	\$75
Daily Committed MW (UCAP)	49
Daily Owned MW (UCAP)	-

**Resource has lower UCAP available for RPM due to ELCC decrease. Unit does not come online for Delivery Year and does not specify replacement capacity to decrease RPM commitment.**

**Resource is still paid** for RPM Auction Credits, but assessed RPM Commitment Charges in excess of Credits (status quo)

**Resource is not paid** for the undelivered RBP MW, resulting in a \$0 RBP Credit payment. In addition, Resource is subject to RBP Shortfall Charge of 20% RBP Price.

*Example assumes connect and manage is being allocated*

Settlements		
RPM Auction Credits	\$3,675	RPM Cleared MW * RPM Price
RPM Commitment Deficiency MW	49	Daily Committed MW – Daily Owned MW
RPM Commitment Charge	(\$4,410)	RPM Commitment Deficiency MW * 1.2 * RPM WARCP
RBP Credits	\$0	Daily Owned MW * (RBP Price - RPM Price)
RBP Shortfall Penalty MW	50	RBP Cleared MW - min (RPM Cleared MW, Daily Owned MW)
RBP Shortfall Charges	(\$2,000)	RBP Shortfall Penalty MW * .2*RBP Price
Total Credits	(\$2,735)	Total Settlement is less than Expected due to non-delivery of full RBP and Deficiencies



# Example #5 – RBP Load Allocation of Deficiency

RBP Full Shortfall; RPM Full Shortfall

RBP Clearing	
Cleared MW (UCAP)	50
Price (\$/MW-Day)	\$200
Expected RBP Charges	(\$10,000)
RPM Clearing	
UCAP Obligation MW (UCAP)	50
Final Zonal Capacity Price (\$/MW-Day)	\$75

**Load is still assessed** RPM Charges but is allocated the RPM Commitment Deficiency Credits.

**Load does not pay** for the undelivered RBP MW, resulting in no RBP Charges. In addition, Load is allocated RBP Shortfall Charges collected.

*Example assumes connect and manage is being allocated*

Settlements		
RPM Charges	(\$3,750)	UCAP Obligation MW* FZP
RPM Commitment Deficiency Credits	\$4,410	
RBP Charges	\$0	Equal to RBP Credits
RBP Shortfall Credits	\$2,000	Allocated RBP Shortfall Charges
Total Charges	\$2,660	Load is credited due to non-delivery of RBP Commitment and RPM Commitment

**EDC Pro-Rata Allocation:** Costs will be allocated to Electric Distribution Companies (EDCs) based on their pro-rata share of the target MW.



# Cost Allocation Example

Costs are allocated back to the affected zones when RBP < BRA price and vice versa.

Zone/EDC Load Settlements

EDC	LDA	RBP					BRA		
		Demand	Share	Alloc MW	Avg. Price	Cost	Cleared	Price	Credits
A	RTO	0	0%	0	\$450	\$0	12,000	\$350	\$4,200,000
B	B	5,000	100%	2,000	\$450	\$900,000	3,000	\$500	\$1,500,000
C	C	0	0%	0	\$450	\$0	9,000	\$500	\$4,500,000
		5,000		2,000		\$900,000	24,000		\$10,200,000

CfD for RBP resources are allocated to EDC.

This allocation is 100% to EDC B. If the participation was different across EDCs this allocation would be pro-rata.

UCAP Obligations and Prices

EDC	LDA	Native Load	New LLA	Total Load	RPM Obl	FZCP
A	RTO	10,000	0	10,000	9,600	\$350
B	B	3,000	2,000	5,000	4,800	\$500
C	C	10,000	0	10,000	9,600	\$500
		23,000	2,000	25,000	24,000	

Settlements

EDC	LDA	RPM Credits	CfD Credits	RPM Charges	Alloc CfD	CTR \$	Net Charge
A	RTO			\$3,360,000	\$0	\$0	\$3,360,000
B	B			\$2,400,000	\$50,000	\$270,000	\$2,180,000
C	C			\$4,800,000	\$0	\$90,000	\$4,710,000
		\$10,200,000	\$50,000	\$10,560,000	\$50,000	\$360,000	\$10,250,000

**Credit and collateral requirements for planned resources for taking on a RBP commitment will follow existing RPM framework (Attachment Q, VI.,B) with rate adjustments as follows:**

Prior to bid submission RBP Phase II (central procurement)  $\text{Max}(\$20, 0.2 \times \text{bid/clearing price}) \times$   
**year multiplier**

**Year multiplier** is the ratio of the Net Present Value\* of the number of years penalty cash flow to the nominal value of one-year penalty.

RBP Phase II (central procurement) credit requirement may be reduced to reflect the remaining years while taking into account the credit quality of the Market Participant.

\*NPV rate = 9.5%, Source – Brattle 2025 CONE Report for PJM

- 15-year tenor and 9.5% discount rate was assumed to calculate the year multiplier, which equates to five years.
- Risk is proposing to require credit support equivalent to Net Present Value (NVP) of future penalties over the term.
- The credit support amount:
  - Covers the full penalty for the years at most risk
  - Equates to approximately one-year of notional value of the commitment value



# Credit and Collateral Requirements (Pre-Bid RBP Post Phase II)

Illustrative Example

**Collateral required is \$15.5MM for a 100 MW unit with 15-year tenor, clearing price \$100/MWD and 9.5% discount rate.**

*Assumptions:* (1) To participate in RBP Phase II (central procurement), entity must be a PJM market participant, and (2) RBP Phase II (central procurement) credit requirement is stand alone.

Bid/Clearing price (\$/MWD)	\$400	
Cleared Volume (MW)	100	
Post (central procurement) Credit Rate%	0.2	
Tenor (year)	15	
Discount Rate	9.5%	
Nominal Penalty/Deficiency Charge (\$/Yr)	\$2,920,000	=400/MWD * 100MW * 365 * 0.2
NPV (2031) of Penalty/Deficiency	\$22,858,271	=PV(Discount Rate, Tenor, -Nominal Penalty/Deficiency Charge)
NPV (Oct. 2026) of Penalty/Deficiency	\$15,542,947	=PV(Discount Rate, Years Between Oct. 2026 and 2031, 0,-NPV in 2031)
Year Multiplier	5.32	=NPV(Oct. 2026) / Nominal Penalty/Deficiency Charge

Year	2031	2032	...	2045
Penalty/Deficiency Charge	\$2,920,000	\$2,920,000	...	\$2,920,000
Discounted Penalty/Deficiency Charge	\$2,666,667	\$2,435,312	...	\$748,454
NPV (2031)	\$22,858,271			
NPV (Oct. 2026)	\$15,542,947			
Year Multiplier	5.32			

Discount rate = 9.5%, Source – Brattle 2025 CONE Report for PJM

- Credit and collateral requirements for EDCs are expected to be managed by the current credit processes, which include but are not limited to credit evaluation, PMA and use of other mitigation tools, such as posting of credit support and/or UCRs.

- If default occurs as a result of a supplier's nonpayment of a RBP penalty or deficiency charge, the EDCs will be short those corresponding credits.
- If a default occurs as a result of a nonpayment of a RBP charge, that amount would be handled as a default allocation assessment under the existing OA Section 15.2.2.

*This is consistent with the RPM market today.*

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