

Critical Issue Fast Path – Reliability Backstop Procurement PJM Proposal

Reliability Backstop Procurement – PJM Proposal

This paper outlines PJM's proposal to address the need for a Reliability Backstop Procurement. PJM's proposal serves as a transitional mechanism to safeguard resource adequacy, support the Connect and Manage interim posture, and advance reforms to be discussed in the investment incentive work planned for later this year.

PJM has received a tremendous amount of feedback from stakeholders on this topic. With that information, and consultation with Charles River Associates (CRA), PJM is putting forth a framework that will allow for bilateral contracting between direct parties followed by a proposed central procurement to acquire the remaining targeted megawatt amount.

PJM is viewing the Reliability Backstop Procurement as a one-time, transitional procurement of capacity designed to begin to address the unprecedented load growth in the region. PJM does not believe the Reliability Backstop Procurement is a long-term fix for its resource adequacy issues. Therefore, in parallel with the Reliability Backstop Procurement, PJM is also undertaking a review of its markets as mentioned in the National Energy Dominance Council within the White House and PJM Governor's principles¹ that articulate a longer-range desire to "Return PJM to Market Fundamentals" and the PJM Board letter² from January 16th that also instructs PJM staff to undertake a holistic review of investment incentives in PJM's markets.

PJM is aligned that this one-time backstop procurement should not subsume this larger review of market fundamentals. PJM believes this initial proposal for the Reliability Backstop Procurement is in-line with the White House and Governor's principles as it seeks to get net-new generation online in the PJM footprint, allocate costs to the load that is purchasing the capacity and has a strong focus on establishing a one-time procurement to allow for a broader review of investment incentives in PJM with a focus on returning to competitive markets for resource adequacy as soon as possible thereafter.

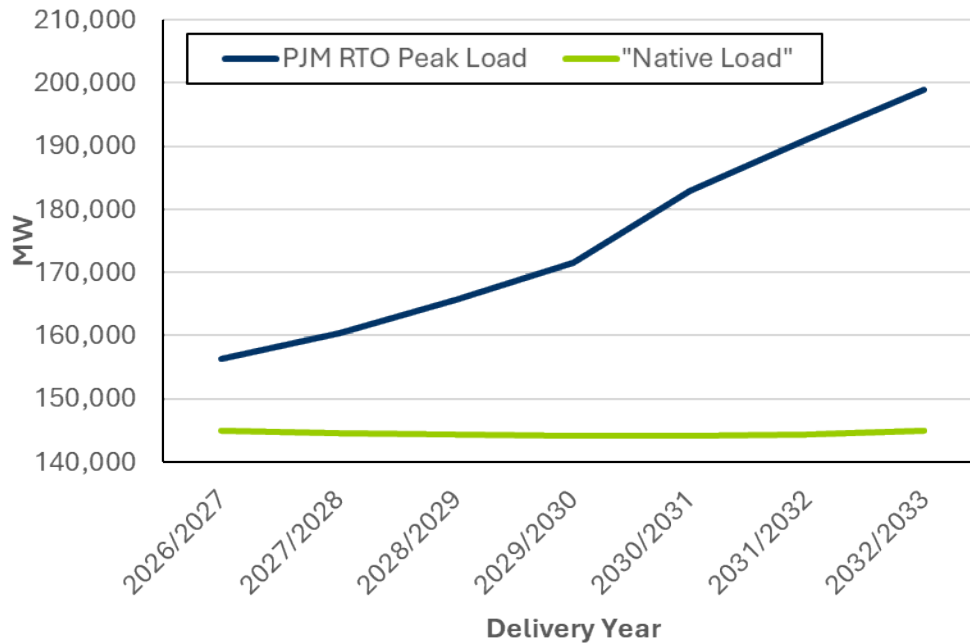
Resource Adequacy in PJM – Background

Over the next decade, the PJM region is forecasted to experience an unprecedented need for net-new supply to connect to the system. For the first time in its history, PJM cleared short of the Reliability Requirement in the 2027/2028 Base Residual Auction (BRA). This shortfall is projected to continuously grow over the next decade as new large loads come on to the system. Current projections show a potential capacity shortfall of 50 GW to 60 GW in the next decade, primarily driven by large load growth but also forecasted conventional load growth. With longer construction times for some technologies, needed transmission build-out and other infrastructure needs (e.g., natural gas infrastructure), the PJM system needs to prepare for the net-new supply needed to maintain resource adequacy in the region.

¹ <https://www.energy.gov/documents/statement-principles-regarding-pjm>

² <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2026/20260116-pjm-board-letter-re-results-of-the-cifp-process-large-load-additions.pdf>

Figure 1: PJM RTO Peak Load and Estimated Native Load: 2026/2027 through 2032/2033 Delivery Years



Roles and Responsibilities

Designing and executing a Reliability Backstop Procurement (RBP) that will have meaningful impact in resolving PJM's anticipated capacity shortfall will require a cooperative and collaborative effort between PJM, the states and the stakeholders. In this proposal, PJM identifies the impacted parties and where there are roles and responsibilities outside of PJM in this process.

Request for Information

PJM is looking for formal submissions of information from both the generation and demand side before finalizing the proposed solutions for the RBP. This Request for Information (RFI) will be confidential and seeks information on terms, conditions and criteria in which parties would: (1) enter bilateral contracting and/or (2) participate in a PJM central procurement.

This RFI will be sent out on April 16, 2026, with requested submissions by May 4, 2026. The graphic below summarizes the information that will be requested:

Figure 2: RFI Criteria, CRA recommended data request

Demand-Side (Load Requirement)	Matching Dimensions	Supply-Side (Resource Capabilities)
LSEs and Large loads / hyperscalers (directly or via LSE proxy)		All accredited resources including thermal, storage/hybrids, load relief/demand response
<ul style="list-style-type: none"> • Zone / Subzone 	Location	<ul style="list-style-type: none"> • Location and delivery • Interconnection status (queue stage, etc.)
<ul style="list-style-type: none"> • Start year and ramp profile 	Timing	<ul style="list-style-type: none"> • Earliest in-service date / COD • Development timeline risk
<ul style="list-style-type: none"> • MW requirement • Ramp / scaling flexibility 	Quantity	<ul style="list-style-type: none"> • Available MW • Minimum / preferred deal size (aggregation potential)
<ul style="list-style-type: none"> • Load flexibility (firm vs. interruptible) 	Operational Profile	<ul style="list-style-type: none"> • Accreditation
<ul style="list-style-type: none"> • Contract preference (PPA, toll, capacity, etc.) • Desired contract term(s) • Willingness to pay (high-level + range) 	Commercial Terms & Pricing	<ul style="list-style-type: none"> • Contract structure preferences • Indicative pricing expectations (range, not bid) • Term / tenor requirements
<ul style="list-style-type: none"> • Credit exposure • Existing supply agreements 	Development / Credit	<ul style="list-style-type: none"> • Key development risks (e.g., permitting) • Counterparty / credit / security requirements

Roles and Responsibilities

Participate in RFI: LSEs, large load participants, hyperscalers, generation developers, DR/DER Aggregators, EDCs, state commissions

Reliability Backstop Procurement Design

Proposed Backstop Mechanism: A Phased Approach

PJM is proposing a two-phased mechanism for the RBP: A **Bilateral Contracting** phase and a **Central Procurement** phase, with PJM as the central administrator. Stakeholder feedback from both generation and load sectors suggests that bilateral contracting is the superior initial option, as it facilitates more efficient risk-sharing and tailored cost structures. PJM believes giving time to allow for bilateral contracts among willing parties can contribute to the overall success of the backstop process.

Bilateral contracting can and does exist successfully outside of PJM today. The value PJM believes it can bring in facilitating bilateral contracting is one of timing with the introduction of the Reliability Backstop Procurement and the Connect and Manage framework, and a value-added matchmaking to enable potential many-to-one contracts to bilateral a total load or total generation need.

Phase I: Facilitated Bilateral Matchmaking

PJM and Charles River Associates (CRA) will act as confidential intermediaries to match buyers (load) and sellers (new generation). Unlike the existing capacity posting functionality in Capacity Exchange, which is underutilized due to its public and decentralized nature, this stage will be "hands-on," providing a secure environment for independent negotiation and many-to-one contracting.

Once potential matching is identified, it will be up to the parties to set terms and conditions and execute a contract. PJM and CRA will not be party to these negotiations and do not intend on developing pro formas for this process. There is no requirement from PJM to finalize contracting agreements, and any party not successfully contracted can participate in the central procurement phase.

Roles and Responsibilities

Participate in Bilateral Contracting: LSEs, large load participants, hyperscalers, generation developers, DR/DER Aggregators



The bilateral phase is planned from **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*

Phase II: Central Procurement

Any residual target megawatts not met during the bilateral phase will move to a PJM-administered central procurement, with PJM Settlements Inc. as the counterparty on behalf of Electric Distribution Companies (EDCs). This ensures the "best" contracts are formed early, while PJM provides the safety net to close the reliability gap. The central procurement design is discussed below.



Central procurement is planned to commence in **March 2027**.

Central Procurement Design

Procurement Target Methodology

PJM is proposing to set initial targets for procurement as a starting point to facilitate the final procurement targets, with the final procurement targets to be set by the EDCs.

This procurement will be at the RTO level and broken out by zone areas³ based on the megawatts of large load that area is forecasted to serve. PJM will set the initial target using the 2026 Load Forecast for the estimated 2029 summer large load forecasts minus the 2026 summer large load forecasts.⁴ PJM is excluding Fixed Resource Requirement (FRR) entities from these targets and from the Reliability Backstop Procurement.

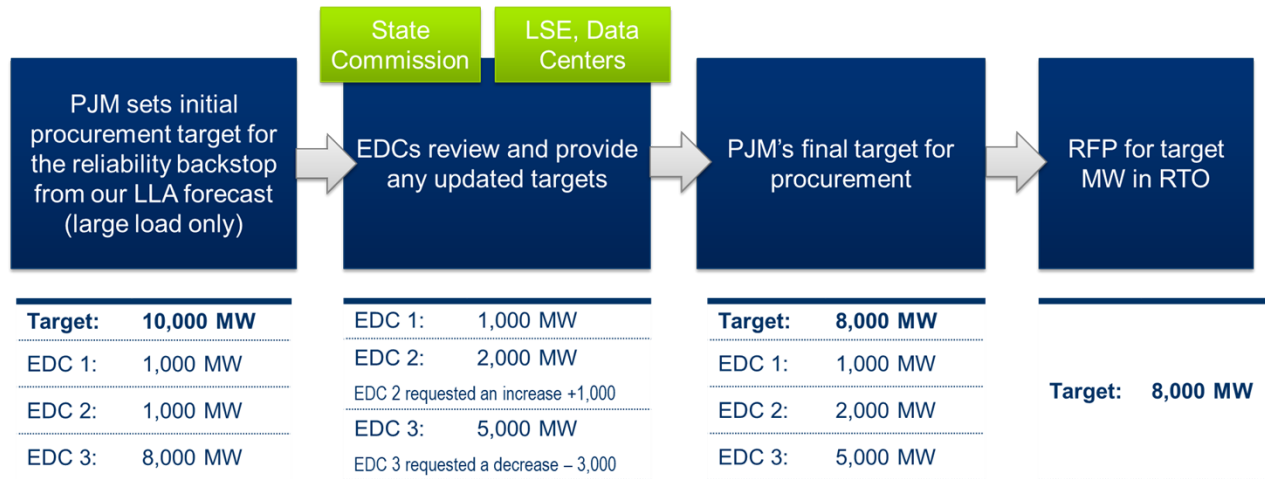
The final procurement targets, set by the EDC, should account for megawatts that do not need to be represented in the backstop procurement due to bilateral contracting (BYONG) or willingness to be curtailed. Additionally, EDCs will have the opportunity to increase the target to account for large load PJM is unaware of, or did not represent in its forecasts, or incremental native load the EDC would like to procure for. The EDCs will also have an opportunity to decrease the target to account for load that should not be represented in the backstop procurement.

PJM will aggregate final EDC targets to set a final RTO procurement target. This workflow, with an example, is highlighted in Figure 3:.

³ PJM will use the modeled wholesale areas for a zone in the Capacity Exchange system.

⁴ PJM is proposing the 2029 large load forecast, as that represents the firmest estimate for large loads; additional uncertainty exists in the years beyond 2029. The proposed initial target is ~15 GW.

Figure 3: Procurement Target Workflow



Roles and Responsibilities

Setting Procurement Targets: EDCs with support from state commissions and large loads/LSEs

Eligible Supply

“New” resources will be eligible to participate in the central procurement phase of the Reliability Backstop Procurement. PJM is proposing to define “new” as resources that:

1. Demonstrate new ICAP and CIRs are being brought to the system,
2. Have not received an RPM commitment for a future delivery year where the BRA has already been run, which – at the time of the central procurement – will be up to and including the 2029/2030 Delivery Year; and
3. Have a commercial operation date (COD) no later than June 1, 2031, inclusive of network upgrades.

For generation resources, this can include new build, uprates or repowering of currently deactivated generators. Additionally, generation in the queue with CIR transfers would be considered eligible.

Demand Response (DR) and Distributed Energy Resources (DER) will also be considered eligible for participation. Aggregators who bid DR or DER into the Reliability Backstop Procurement will be required to show the identified sites and associated contracts for participation for the length of term of their bid.

Based on this definition, delayed retirements, re-licensing, fuel switching, CIR-only uprates and surplus resources would be excluded.

Interconnection Review

There will be no restriction to participation in the Reliability Backstop Procurement imposed by the interconnection process, and PJM will not create a "special" interconnection track for the RBP. If the Reliability Backstop Procurement offer is accepted for a generation project, the project must proceed through the standard cycle process to obtain the appropriate interconnection agreement that permits commercial operation consistent with the bid-in

parameters. The project will be required to either reach commercial operation or seek interim deliverability, to obtain CIRs, for its first bid-in delivery year and all applicable subsequent delivery years.

The developer is responsible for the actual Network Upgrade costs of the project and is expected to bid in the Network Upgrade costs with the Reliability Backstop Procurement offer. If an RBP bid is underpriced relative to actual upgrade costs determined in the queue process, the developer bears the shortfall costs. For projects that do not yet have a signed interconnection agreement with PJM, these estimated upgrade costs will need to be obtained by the developer. A project currently under study [Transition Cycle 2 (TC2), Cycle 1] would have the most recent study results consistent with the appropriate phase that has been completed. A project not under study would need to rely on independent analysis, which can be achieved using the planning models provided by PJM.

Roles and Responsibilities

Evaluation of Network Upgrades and Associated Costs: Suppliers

Central Procurement Structure

Product Definition

The Reliability Backstop Procurement will procure long-term commitments for capacity-only UCAP.

PJM weighed the tradeoffs of a central procurement for capacity-only versus “all-in” capacity, energy and ancillary services commitments. Although long-term commitments aimed at capturing all-in costs may provide more revenue certainty, this type of construct would add complexity and extend impacts across PJM markets to implement and manage the commitments. Containing commitments to the capacity space still provides an amount of revenue certainty to new resources while simplifying implementation and avoiding unintended consequences, such as degraded performance incentives, in other market areas.

A structure that commits for UCAP carries a level of uncertainty risk related to resource accreditation over the term of the commitment. However, PJM believes that aiming to meet the Reliability Backstop Procurement target considering resources’ anticipated reliability value will be most effective. The risk of accreditation changes over the term of the commitment will be on suppliers, who will have the opportunity to manage this risk through their offers into the backstop.

Offers

Suppliers will represent offers in \$/MW-day UCAP for each delivery year of the commitment term. Terms of 2 to 15 years may be offered. Suppliers will carry the Effective Load Carrying Capability (ELCC) risk for the commitment terms and will be expected to provide the offered UCAP on an annual basis. An illustration of Sell Offers is detailed in Table 1 below:

Table 1: RBP Offer Examples

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

Note: 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.

Clearing Structure

The RBP central procurement will be pay-as-bid. Resources that pass through the gating criteria assessment will have commitments based on their offer prices and UCAP quantities.

The central procurement will have a single representation of the willingness to pay, and individual large loads wanting to express a unique willingness to pay will have the opportunity to do so in the bilateral contracting stage. PJM is still determining the defined price cap for the RBP and is interested to hear from the demand side and the ability to coalesce around one value for an appropriate price cap. PJM is also determining the appropriate transparency of a defined price cap to ensure this determination does not influence the bilateral matchmaking phase of this process.

PJM evaluated several variations of pay-as-bid and uniform price auction styles when designing the RBP. Given the one-time nature of the proposed RBP and the procurement framework, the values of a single clearing price design, allowing price discovery and long-term incentive signals, do not occur. A pay-as-bid procurement with a price cap is better suited to achieve the goal and minimizes the complexity of this effort.

Settlement Structure

Each committed RBP resource will be settled as a contract for differences (CfD) based on the individual resource's offered price (which is equal to the RBP commitment price), against the resource's weighted average resource clearing price of applicable RPM auctions for all committed RPM megawatts. If an RBP commitment is for a delivery year in which PJM has already conducted the BRA, the CfD will only be against the weighted average resource clearing price in the applicable Incremental Auction(s).

The CfD will only be assessed for megawatts that are committed in the RPM and delivered and will be capped at RBP committed megawatts. If a resource offers additional megawatts beyond its RBP commitment into RPM, those megawatts would be settled under the existing RPM rules.

Table 2 and Table 3 provide illustrative examples of a contract for differences.

Table 2: Contract for Differences Example When RPM Clearing Price < RBP Commitment Price

RBP Commitment Price	\$400	\$/MW-day (UCAP)
RBP Commitment	100	MW (UCAP)
RBP Commitment Value	\$40,000	
RPM Commitment	100	MW (UCAP)
RPM Resource Clearing Price	\$300	\$/MW-day (UCAP)
DY Available (Owned)	100	MW (UCAP)
RPM Settlement	\$30,000	100 MW @ \$300/MW-day
RBP Settlement	\$10,000	100 MW @ \$100/MW-day (\$400–\$300)
Net CfD Settlement	\$40,000	

Table 3: Contract for Differences Example When RPM Clearing Price > RBP Commitment Price

RBP Commitment Price	\$400	\$/MW-day (UCAP)
RBP Commitment	100	MW (UCAP)
RBP Commitment Value	\$40,000	
RPM Commitment	100	MW (UCAP)
RPM Resource Clearing Price	\$500	\$/MW-day (UCAP)
DY Available (Owned)	100	MW (UCAP)
RPM Settlement	\$50,000	100 MW @ \$500/MW-day
RBP Settlement	(\$10,000)	100 MW @ \$100/MW-day (\$400–\$500)
Net CfD Settlement	\$40,000	

Selection Process

The selection of projects in the Reliability Backstop Procurement will be conducted in a two-stage approach. The first will be a gating criteria evaluation that projects will pass or fail. The second, for projects that pass the gating criteria, will be a price-based selection.

Stage 1: Gating Criteria Evaluation

To validate the required COD of June 1, 2031 or earlier, the following threshold criteria will be used. 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

Stage 2: Price-Based Selection Assessment

All supply offers that pass the gating criteria evaluation will be moved on to Stage 2. Offers will then be selected in least cost order based on the lowest average cost of capacity per UCAP over the term, up to the defined RTO target procurement.

PJM is not proposing a more robust evaluation criterion currently. PJM and CRA discussed an evaluation that considered price, COD, ELCC and term in a selection assessment, but due to the subjectivity that would be required to facilitate this option, it is not being further pursued.

Supply Obligations

Resources with a Reliability Backstop Procurement commitment will have a capacity Must-Offer Requirement on the UCAP of the RBP commitment for all auctions conducted after procurement for all delivery years in the backstop commitment period (term length). RBP committed resources will be required to offer into each auction at \$0 (price taker) and will receive the capacity clearing price in each auction. The resource's RPM committed megawatts will be subject to all RPM rules, including replacement, applicable requirements (e.g., energy must offer) and non-performance evaluations (e.g., PAI, deficiency charges).

In addition to the existing obligations in RPM, a RBP resource that fails to deliver its committed UCAP will not be compensated for the shortfall between the committed UCAP and the delivered UCAP, and a shortfall charge of 20% of the RBP commitment price will apply. This shortfall charge will be assessed daily, beginning in the first commitment delivery year, on any deficit between the Reliability Backstop Procurement committed UCAP and its daily owned UCAP in the RPM. There will be no eligibility for replacement megawatts to cover the RBP committed megawatts.

PJM is proposing the shortfall charge will be assessed for the duration of time PJM is operating in a Connect and Manage framework. If PJM is no longer operating in a Connect and Manage framework, the shortfall charge will not apply. This is proposed under the guide that load will be able to procure capacity under RPM when the system is not short. Additionally, there will be an exception to the shortfall charge for resources that are unable to meet the COD solely due to 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.

If a resource is delayed meeting COD for three years after the first applicable committed delivery year, the Reliability Backstop Procurement commitment will be rescinded for the remainder of the term.

Cost and Risk Allocation

Aggregate costs of the Reliability Backstop Procurement commitments will be allocated to the EDCs based on their pro-rata share of the target megawatts. Indemnification will remain with the applicable EDCs.

EDCs will be able to manage potential risk of unmaterialized load that they procured on behalf of by having the ability to bilaterally transfer their RBP obligation. Reliability Backstop Procurement 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.

Default allocation provisions will be consistent with the RPM market today. If a default occurs by the supply because of a nonpayment of an 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 by an EDC, that amount would be handled as a default allocation assessment under the existing OA, section 15.2.2.

For supply, 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 to address the longer-term commitment of the RBP. An example of the requirement is below:

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

Year multiplier is the ratio of the Net Present Value⁵ of the number of years penalty cash flow to the nominal value of one-year penalty.

RBP Phase II credit requirement may be reduced to reflect the remaining years while considering the credit quality of the Market Participant.

Figure 4 illustrates how the pre-bid RBP Phase II (central procurement) will be calculated.

Figure 4: Credit and Collateral Pre-Bid RBP Phase II (Central Procurement) Example

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

PJM is proposing to require credit support equivalent to Net Present Value (NPV) of future penalties over the term. The credit support amount covers the full penalty for the years at most risk. 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.

Roles and Responsibilities

Allocating to the applicable Load that the RBP megawatts were purchased for: EDCs

⁵ NPV = 9.5%, Source - Brattle 2025 CONE Report for PJM