



## Critical Issue Fast Path – Resource Adequacy

### Vistra Corp – Executive Summary

Vistra appreciates the opportunity to provide its perspective on reforms that PJM and stakeholders can undertake to address resource adequacy concerns and provide cost-efficient, reliable service to the 65 million customers in the PJM footprint. At the outset, Vistra would like to thank the PJM Board for initiating the Critical Issue Fast Path-Resource Adequacy (CIFP-RA) stakeholder process. Vistra is also extremely appreciative of the constructive engagement with PJM staff members and other stakeholders throughout this process – our perspectives were informed and enhanced by the input and feedback we received.

As Winter Storm Elliott (WSE) and PJM’s Energy Transition in PJM: Resource Retirements, Replacements & Risks (4R Report) illustrated, with PJM entering a period of resource transition and the possibility of increasingly volatile weather patterns, managing resource adequacy will be a complex task. While the reforms proposed in the CIFP-RA represent an important step forward, neither this stakeholder process – or any stakeholder process – could reasonably address all the issues facing PJM and its stakeholders. For that reason, it is critical that PJM and stakeholders stay focused on the four directives articulated by the Board when it initiated the CIFP-RA process. While the CIFP-RA reforms proposed in PJM Package 2 are a step in the right direction, further work will be needed to meet the four directives articulated by the Board. Addressing these issues in a thoughtful and collaborative manner will help create the necessary market conditions to incent the resources PJM needs to both enter and stay in the market. As illustrated by the following chart, the performance (and thus the retention) of dispatchable thermal resources is essential if PJM is to meet its reliability obligations.

Vistra supports the framework in PJM Package 2, particularly the current annual auction schedule, existing Capacity Performance (CP) framework, must offer exemption for intermittent and storage resources, and FRR/RPM alignment. However, beyond these key components, Vistra has several recommendations that will enhance the objectives of PJM Package 2 and allow it to better meet the objectives the Board laid out in initiating the CIFP-RA process. Finally, this process will not be the last word on reforms to the capacity market or changes needed to meet resource adequacy needs. Vistra has several suggestions regarding next steps – both short and long term – that the Board, PJM staff, and stakeholders need to address. We look forward to engaging with all parties going forward.

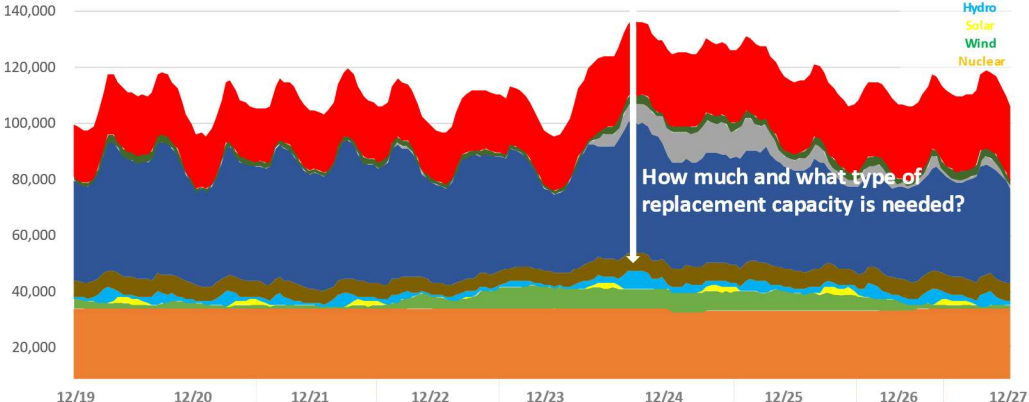
Grid Needs Firm Resources To Be Reliable



PJM generation during Winter Storm Elliott –

Fuel Flexibility proved valuable to grid reliability on December 23 – 25.

MW by hour



Note. A portion of the oil burn is from dual-fuel gas units

PJM Package 2 Key Components

PJM Package 2 includes several core concepts and components which will allow PJM and stakeholders to meet some of the Board’s core directives and enhance resource adequacy within the PJM footprint. Specifically, Vistra is supportive of:

- Retaining the current annual auction schedule with a single, annual Base Residual Auction (BRA) along with a full complement of Incremental Auctions (IAs).** Vistra supports PJM Package 2 which employs the existing single auction, clearing price, and annual demand curve as well as a full complement of IAs (as the existing auction schedule permits) as the best option for achieving the Board’s directives in initiating the CIFP-RA stakeholder process and cost-efficiently procuring the capacity needed to ensure reliability in the PJM footprint. While Vistra appreciates the work of PJM staff on conceptualizing a seasonal market, much more analysis, feedback, and work is required before that concept (or any more granular market-wide approach) is ready for implementation. Significant work is still required regarding details on accreditation, seasonal demand curves, market mitigation, and auction clearing mechanism. It is critical for market participants who will be offering their resources as well as PJM and FERC to understand and have confidence in the market mechanisms, including the offer structure and clearing mechanism. This is especially true given the limited time between a FERC filing and the beginning of preauction

activities for a June BRA, which make it essential that any proposal be clearly acceptable to FERC and easily implementable for both PJM and market participants. For this reason, ***Vistra recommends that the Board file a proposal with the existing annual construct as its base as proposed in PJM Package 2.***

- **Retaining the existing penalty and bonus structure along with limited excuses for performance shortfalls.** WSE – where despite significant challenges PJM and its Members were able to maintain reliability – demonstrated the value of the existing Capacity Performance (CP) framework. Critical to that framework are the penalties imposed on resources that are unable to meet their capacity commitment and, conversely, the opportunity to earn bonuses for resources who are able to respond and ensure reliability across the footprint. Significant changes to the Non-Performance Charge Rate and Stop-Loss – particularly in light of WSE – would send a chilling signal regarding the value PJM places on reliability. In short, this would directly and unequivocally reduce incentives for generators to invest capital and O&M expenses for elements such as dual fuel, fuel security, overall unit reliability, etc. The rationale for the CP framework, is even stronger post WSE, and weakening the framework is a step back for reliability. For this reason, ***Vistra recommends not changing the Non-Performance Charge Rate and Stop-Loss and continuing to base both on Net CONE as proposed in PJM Package 2.*** Equally critical to ensuring performance is limiting the number of excuses for any performance shortfalls. Again, ***Vistra supports the limited excuses proposed under PJM Package 2.***
- **Retaining the must offer exemption for intermittent and storage resources.** Keeping the exemption to the “must offer” requirement for intermittent and storage resources as proposed in PJM Package 2 is a prudent step toward enhancing reliability while facilitating a changing generation mix. Subjecting intermittent and storage resources to a must offer requirement places an unnecessarily burden on those resources while not materially changing PJM's operational flexibility. ***Vistra recommends that the Board retain the must offer exemption for intermittent and storage resources in PJM Package 2.***
- **Better alignment of FRR and RPM market rules.** One of the Board’s four directives in initiating the CFP-RA process was to synchronize the rules between FRR and RPM resources. Developing consistent rules ensures fair treatment for all resources, enhances market fundamentals, and provides value to consumers regardless of whether they are served by resources in either an FRR or RPM framework. ***Vistra supports the reforms proposed in PJM Package 2 and recommends they be accepted by the Board.***

## **PJM Package 2 Key Modifications**

Although Vistra supports the overall design framework around PJM Package 2, several components require modification to meet the goals of cost-efficiently enhancing reliability using market mechanisms.

### **Auction Procurement Levels - PJM Package 2 Component 18**

Consistent with maintaining the existing annual auction framework, ***Vistra recommends retaining the status quo where PJM aims to procure 100% of the demand in the BRA and buys and sells in IAs to reflect updates to reserve requirements.*** This necessarily means that the Forecast Pool Requirement calculated as  $(1+IRM) \times (\text{Pool Wide Average ELCC})$  under PJM Package 1 and 2 should therefore have a floor of 1.0 to ensure that all firm load is treated equally and served within the RPM framework.

### **Definition of Emergency Action - PJM Package 2 Component 21**

Vistra appreciates PJM Package 2's continued support of a robust CP framework of penalties and bonuses. An important component of the CP framework is triggering Performance Assessment Internals ("PAIs") at appropriate times of system stress; thereby signaling to resources that their performance, during that interval, is critical to maintaining system reliability. For this reason, ***Vistra recommends refiling the definition of Emergency Action to include a shortage of the Extended Primary Reserve requirement coupled with certain actions taken by PJM as triggering a PAI.***

Although FERC adopted the significantly less conservative standard based on a shortage of only the Primary Reserve requirement, it did not find that a shortage of the Extended Primary Reserve requirement was not just and reasonable. More importantly, as PJM's Mike Bryson explains, tying the triggering of a PAI event to the combination of a shortage of Extended Primary Reserves coupled with PJM taking certain actions "is appropriate because these steps are taken when there is a significant risk to shedding load and are more representative of an actual capacity emergency." In other words, by taking any one of the four steps included in the PAI trigger requirement, PJM is attempting to mitigate an already developing capacity emergency. If PJM is taking those steps in concert with a shortage of Extended Primary Reserves, it is only logical that the resources it is counting on to address the emergency should be available and ready to perform—and, if not, those resources should be subject to penalties.

### **Capacity Performance Bonus Eligibility and Opportunity Cost of Taking a Capacity Offer – PJM Package 2 Components 22, 24, 30, 31, and 63**

As demonstrated during WSE, ensuring reliable operations during the periods of extreme system stress will require contributions from all resources, not just those that have received a capacity commitment (or a commitment for only some of their potential output). Incentivizing resources to not only perform, but to be prepared to perform, requires that they be eligible for the full range of incentives across both the energy and capacity market. For this reason, ***Vistra recommends that all resources that are eligible to participate in the BRA or IA irrespective of whether the resource offered or cleared an auction are eligible for any CP bonus pool.*** Similarly, ***Actual Performance should be defined as metered output of energy delivered to PJM plus reserve and regulation megawatts.***

Limiting bonus pool eligibility to only those resources that have a capacity commitment (and only up to their commitment amount), will have significant negative impacts on system reliability. Such a requirement will dampen incentives for resources (including those without a must-offer requirement who are still eligible to participate in the BRA and IAs) from taking steps to enhance their ability to perform during times when the system is most stressed. Furthermore, under the current rules, resources at risk of not clearing the BRA or IA, or otherwise do not clear the BRA or IA, are nonetheless incented to invest in reliability-based upgrades given the potential for bonus payments. These reforms remove that incentive. Limiting bonus eligibility to a resource's committed capacity implicitly limits its bonus eligibility to the resource's accreditation value, thus placing undue importance on the precision of the accreditation process and inviting additional disagreement and litigation between PJM and market participants. Finally, limiting bonus eligibility to only those resources with a capacity commitment will likely result in higher overall net penalties and greater market volatility.

Consistent with including all resources that are eligible to participate in the BRA or IAs in the potential bonus pool, including those without a capacity must offer requirement, ***Vistra also recommends that PJM retain the status quo opportunity costs of taking on a capacity commitment vs. remaining energy-only.***

### **Tradable Performance Credits – PJM Package 2 Components 23**

As one of the original developers of the Tradable Performance Credits (“TPC”) concept, Vistra is pleased that PJM has included this concept in PJM Package 2. As detailed in Vistra’s June 1 presentation to the CIFP-RA, TPCs maintain the strong penalty structure that incentivizes performance, while allowing resources to appropriately hedge risk by aligning investment incentives with opportunity for bonus revenue. TPCs also benefit PJM by increasing its operational awareness of individual resource risk, area risks, and correlated availability risk. Additionally, with PJM Package 2 eliminating the opportunity for

resources to engage in retroactive replacement transactions, TPCs can provide a fair and easily administered substitute.

While PJM’s proposal is a scaled-down version of Vistra’s initial concept, we believe that it represents an important first step in fully developing this concept and ***Vistra urges the Board to adopt PJM Package 2’s use of Hourly PAI Committed UCAP for a PAI obligation exchange.*** Additionally, ***Vistra encourages PJM to develop a mechanism for regular postings of system risk information, including potential system stresses and event risks.*** This type of posting will not only add value to any TPC framework, but will also benefit all stakeholders by allowing both resources and load to balance their capacity risk in a transparent and efficient manner.

Finally, ***Vistra recommends market participants retain the ability to adjust commitments on units after-the-fact through retroactive replacements for PAIs.*** Retroactive replacement transactions remain an important tool for managing resource risk and limiting market volatility while incenting market participants to over-perform during reliability critical periods when their resources are available. Vistra recognizes the administrative burden of these transactions and is open to discussing alternative risk management tools in future stakeholder processes.

#### **Resource Testing – PJM Package 2 Component 38**

***Vistra supports the enhanced testing requirements proposed in PJM Package 2*** as an important component – along with market-based incentives and risk mitigation tools – to improving resource performance; particularly during times of system stress. However, in order for any testing regime to be effective it should incorporate market and operating conditions; failure to do so creates a “testing trap” where resources that would otherwise pass any testing requirement and, more importantly, be available to operate when dispatched, fail a test that doesn’t take into consideration actual real-world conditions. ***Vistra recommends that test scheduling take into consideration the natural gas nomination cycle,*** giving resources that would not normally purchase gas under the market circumstance during which the test is scheduled the opportunity to do so prior to testing; just as those resources would purchase gas ahead of any indicator that they would be called upon to perform and ensure reliability.

#### **ELCC Accreditation – PJM Package 2 Components 41, 42, and 43F**

The decision to move to marginal ELCC accreditation for all resources represents a substantial shift in resource modeling. ***Vistra supports shifting modeling for current ELCC Resources (intermittent and storage resources) from class average to marginal.*** This change will better capture these resources’

contribution to reliability; an especially important attribute as the penetration of intermittent and storage resources continues to grow.

Vistra is concerned, however, that the current framework for applying marginal ELCC accreditation to unlimited or thermal resources raises both process and substantive questions. As an initial matter, more work – and stakeholder input – needs to be done regarding accreditation values. There remains significant uncertainty regarding how accreditation values for different classes were assigned or even what all of the different technology classes are. Accreditation values for many thermal resources were published only slightly more than a month ago (ahead of a July 17 CIFP meeting). By comparison, the work of the Capacity Capability Senior Task Force (which developed ELCC values for the current ELCC Resources) published its class ratings nearly three months ahead of a senior committee vote, along with extensive modeling and workpapers. Stakeholders and PJM then had the benefit of nearly three months to refine the accreditation values; even with this additional time, PJM’s initial filing at FERC was subject to a deficiency letter before finally being approved.

Beyond simply additional time for stakeholders (and PJM) to better understand ELCC accreditation for thermal resources, significant substantive questions remain. For example, while modeling is done at the RTO-wide level, the impact on specific LDAs, which are highly susceptible to parameter changes (including the reliability requirement) and resource entry/exit, may result in significant volatility. PJM has yet to do any significant modeling at the LDA level where the impact on both consumers and resources could undercut the reliability goals of enhanced modeling. Additionally, certain assumptions around dispatch need to be better understood. For example, while it is reasonable to limit intermittent and storage resources to their CIRs because inverter-based technologies are highly modular and weather-dependent, the same approach may not be appropriate for thermal units committed and dispatched based on an economic signal and are only weather-affected.

While Vistra appreciates the efforts of PJM staff, given the importance of resource accreditation values in ensuring system reliability additional work needs to be done. ***Vistra recommends delaying implementation of any changes to thermal accreditation until the 26/27 Delivery Year (with the 26/27 BRA current scheduled for December 2024) to allow for a stakeholder process focused on thermal resource accreditation methodology.*** This stakeholder process should consider other methods for enhanced accreditation for thermal resources, including Equivalent Unavailability Factor-weighted. While Vistra supports enhanced accreditation, approaches that are not fully vetted by both PJM and stakeholders alike and that do not properly represent the reliability value of a given resource will result in misplaced

planning assumptions and inappropriate price signals that will undercut rather than enhance system reliability.

### **Fuel Security – PJM Package 2 Component 43C**

As discussed in PJM’s Winter Storm Elliott Report, gas resources’ access to fuel can play a significant role in their ability to perform when dispatched. Better alignment between the electric and natural gas markets is a significant policy issue, not only within PJM but across multiple organized markets. And while certain solutions are beyond PJM and its stakeholders’ ability alone to make, the PJM community has been hard at work for nearly two years through the Electric/Gas Coordination Senior Task Force (EGCSTF). ***Vistra supports the important work being done by PJM and stakeholders in the EGCSTF and believes that this is the most fruitful place for PJM-centered reforms to emerge.*** Additionally, ***Vistra encourages PJM to continue to collect data on the performance of dual fuel as well as firm and non-firm transport gas resources to better inform any solutions.***

To the extent that PJM considers fuel security in defining accreditation classes for gas resources, ***Vistra recommends that dual fuel and firm transport resources receive the same accreditation value.*** As shown in the Winter Storm Elliott Report, the performance of both dual fuel and firm transport resources was similarly strong (5.6 and 13.8% forced outage rate respectively), especially when compared to non-firm transport resources (33.9% forced outage rate). Additionally, the definitional difference between dual fuel and firm transport obscures their similar operational attributes, particularly as gas resources capable to procure firm transport are incentivized to buy gas well in advance to maximize their performance capability during reliability events of any reliability events. At the very least, there exists a significant difference in operational characteristics between firm and non-firm transport, and ***Vistra recommends, as an alternative, that three resource classes be offered: dual fuel, firm transport, and non-firm transport.***

Finally, any effective class accreditation requires precise definitions of what is included in each class. Each of the terms dual fuel, firm transport and non-firm transport have different definitions depending on the circumstances. ***Vistra recommends that PJM collaborate with stakeholders in developing definitions for each class prior to the implementation of any accreditation framework.***

### **Default CPQR – PJM Package 2 Components 60, 64 and 77**

Allowing resources to properly reflect the risk of taking a capacity commitment in their offer was one of the Board’s goals of the CIFP-RA process. As demonstrated in WSE, the risk associated with a capacity commitment is not \$0 – a fact acknowledged by both PJM and the IMM. The single biggest action



PJM can take to mitigate the predictions of the 4R Report is significant MSOC reform that allows resources to reflect the asset owner's evaluation of its individual risk. Without fundamental reforms that allow resources the ability to reflect their assessment of their risk, capacity resources will likely continue to retire at an accelerated rate while the rate.

As discussed below, while more significant reforms are necessary, ***Vistra appreciates and supports PJM Package 2's proposed Default CPQR as an important first step.*** However, to ensure that this reform achieves its intended purpose, ***Vistra recommends that the formula for Default CPQR be as follows: Default CPQR = Risk Cost x Extreme Value where Risk Cost is based on a technology-specific default risk of performance consistent with ACR and/or class accreditation while allowing for unit-specific assessments at asset owner's discretion.*** Employing a technology-specific Default CPQR provides consistency with the approach PJM already takes for ACR in which technology defaults are calculated. It is also consistent with PJM Package 2's accreditation approach which is technology class-based. Furthermore, the risk should not be calculated only based on average EFORD (ELCC) but be based on a tiered availability of the unit class. Additionally, because CPQR triggering events are caused more by systemic risk rather than unit-specific risk an individual generator is incapable of completely mitigating its risk. A technology-specific default also avoids the administrative complications inherent in any unit-specific default and would be especially true for CPQR given all the factors which may influence CPQR risk in a particular delivery year.

Consistent with recognizing that risk assessments are subject to a myriad of factors including resource types, location, asset ownership structures, and internal tolerance for risk, ***Vistra recommends that Market Sellers have the option to provide their calculation of CPQR based on the Market Seller's method of analyzing their risks.***

Providing resources with the optimal flexibility to develop and submit their offers will allow them to best reflect their cost and risks in the market. ***Vistra recommends that resources have the opportunity to elect both the Default ACR and Default CPQR, one or the other, or neither.***

Finally, ***Vistra recommends that CPQR be removed from the calculation of Gross ACR.*** While CPQR is a cost borne only by resources with a capacity commitment and is a function of the system reliability/operations, the other components of ACR are a cost of doing business and entirely borne as a result of unit ownership/operation and can only be avoided by ceasing unit ownership or operation.



Vistra appreciates the proposed changes in PJM Package 2 Component 67 which will provide market participants E&AS offset values prior to the market participant having to decide whether to accept the default Net ACR. This additional information will allow market participants to make better informed decisions and improve the overall value of offers into the market. Occasionally, however, PJM and the IMM pre-auction calendars do not always match, leading to unnecessary confusion and uncertainty for market participants. ***For this reason, Vistra requests that PJM and IMM agree to a single auction calendar.***

#### **FRR Transition Provisions – PJM Package 1 Component 83**

Given the significant reforms proposed to better align FRR and RPM rules, which Vistra strongly supports, FRR entities will need an opportunity to update their operations and commercial strategy. Although the transition provisions included in Component 83 were originally developed for the transition to a seasonal, two auction market, Vistra believes that they may also provide value in for an annual auction where the rules have been appropriately updated. For that reason, ***Vistra recommends including PJM Package 1 Component 83 transition provisions along with the proposed revisions to the FRR market rules in PJM Package 2.*** Given the potential for unintended consequences not yet contemplated, Vistra also recommends that a separate focused stakeholder process be conducted to review re-entry process and rules.

## Next Steps

As noted above, while the reforms offered in PJM Package 2 along with Vistra's proposed revisions represent an important step to addressing resource adequacy, more work is required. Some of these changes need to be addressed immediately – with stakeholder processes commencing prior to FERC acceptance of the October 1 filing – while others may be better left until several auction cycles have been completed and PJM and stakeholders have the benefit understanding the market impacts of this first set of reforms.

## Short-Term Needs

- **Enhanced Accreditation for Thermal Resources.** While Vistra believes that it is prudent to delay implementation of any enhanced accreditation for thermal resources beyond the June 2024 auction for the 25/26 Delivery Year, PJM and stakeholders should still move as expeditiously as practicable to address this issue, hopefully prior to the December 2024 auction for the 26/27 Delivery Year. In order to do so, while fully vetting all options including marginal ELCC and Equivalent Unavailability Factor, a stakeholder process should begin in the Fall of 2023, with concrete deadlines – similar to a CIFP process – to prepare for a FERC filing no later than late Spring 2024.
- **Market Seller Offer Cap.** Although PJM's Default CPQR proposal is an appreciable step in the right direction, it is not nearly enough if the resources necessary to maintain reliability are to remain in the market and the dire warnings of the 4R Report are to be avoided. Ideally, PJM and all stakeholders should work constructively to develop a default offer cap that, at a minimum, takes into account auction prices, PAI frequency and duration, and PJM's reserve margins. The good news is that a variety of viable concepts and ideas have already been offered to achieve these goals. Ideally, similar to what occurred with MOPR, the Board should initiate a CIFP process specifically focused on MSOC with the sole purpose of developing a framework that protects both consumers and market participants alike from market power, but allows resources to employ their best commercial judgement in submitting offers into the market.

## Long-Term Goals

- **Increased Market Granularity.** Vistra supports the goal of PJM Package 2 to engage in a conversation around increased capacity market granularity, either through a seasonal market or another framework. This effort should be on-going, with clear benchmarks to achieve specific

goals. However, it is also worth noting that this is an incredibly complex undertaking, one that other markets have been considering over several years or a series of auction cycles. Getting this process right is the most important factor and should not be compromised. Additionally, PJM, market participants, and all stakeholders may benefit from the information that is generated by completing several auction cycles with the proposed reforms filed in October – not to mention the application of any enhancements to thermal accreditation that come out of the recommended second stakeholder process that would begin this year.

- **Tradable Performance Credits.** While Vistra appreciates the inclusion of TPCs in PJM Package 2, we believe that this is just the beginning of the potential benefits and opportunities that this platform could offer suppliers, load, and PJM. We encourage PJM to set up a task force to explore additional opportunities to integrate tools for risk management, increased system awareness, and liquidity into the market.
- **Additional FRR/RPM Alignment.** The reforms proposed in PJM Package 2 represent a significant effort to better align FRR and RPM rules, treat all resources fairly, and provide increased value to consumers. However, additional opportunities for better alignment remain and PJM, stakeholders, and State Commissions and legislatures should partner together to explore additional options to better align rules across both frameworks through a task force.

## Vistra CIFP-RA Proposal Components

**Component 18:** Status quo: Aim to procure 100% of the demand in the BRA. PJM buys and sells in Incremental Auctions to reflect updates to reserve requirements. This aim necessarily sets a floor of 1.0 on the Forecast Pool Requirement.

**Component 21:** Refile the definition of Emergency Action as:

“Emergency Action” shall mean (1) any megawatt shortage of the Extended Primary Reserve requirement (as specified in the PJM Manuals) in a Reserve Zone or Sub-Zone, inclusive of any adjustments to such requirement to account for system conditions, as determined by the dispatch run from the security constrained economic dispatch and where there is also a Voltage Reduction Warning and reduction of critical plant load, Manual Load Dump Warning, Maximum Emergency Generation Action, or the curtailment of non-essential business loads and voltage reduction that encompasses such Reserve Zone or Reserve Sub-zone or (2) anytime the Office of Interconnection identifies an emergency and issues a load shed directive, Manual Load Dump Action, Voltage Reduction Action, or deploy all resources action for an entire Reserve Zone or Reserve Sub-zone.

**Component 22:** All resources eligible to participate in the BRA or IA irrespective of whether the resource offered or cleared an auction.

**Component 23:** In addition to PJM Package 2: (1) direct PJM to increase transparency by developing a mechanism for regular postings of system risk information as soon as practicable; (2) retain the ability to adjust commitments on units after-the-fact through retroactive replacements for PAIs.

**Component 24:** Actual Performance includes metered output of energy delivered to PJM + reserve and regulation MW as calculated per PJM’s Tariff and Manuals. Applies to all resources eligible to participate in the BRA or IA irrespective of whether the resource offered or cleared an auction.

**Component 30:** In addition to PJM Package 2: Bonus payment distribution applies to all resources eligible to participate in the BRA or IA irrespective of whether the resource offered or cleared an auction.

**Component 31:** In addition to PJM Package 2: Applies to all resources eligible to participate in the BRA or IA irrespective of whether the resource offered or cleared an auction.

**Component 38:** In addition to PJM Package 2: test scheduling should consider gas nomination cycle to ensure that resources scheduled to test have the opportunity to purchase gas and avoid a "testing trap."

**Component 41:** Status quo for the 25/26 BRA; stakeholder process focused on thermal resource accreditation methodology for implementation for the 26/27 BRA (currently scheduled for December 2024).

**Component 43C:** In addition to PJM Package 2: class differentiation for dual fuel and firm transport, collectively (or, alternatively, dual fuel, firm transport, and non-firm, separately) for gas resources.

**Component 43F:** Status quo for thermal resources; to be further discussed in stakeholder process focused on thermal resource accreditation methodology for implementation for the 26/27 BRA (currently scheduled for December 2024).

**Component 60:** Remove CPQR from Gross ACR calculation and treat as a stand-alone component of MSOC.

**Component 63:** Retain the status quo opportunity costs of taking on a capacity commitment vs. remaining energy-only.

**Component 64:** Same as PJM Package 2 with the option for a Market Seller to provide the Market Seller's calculation of CPQR based on the Market Seller's method of analyzing their risks.

**Component 67:** In addition to PJM Package 2: PJM and IMM agree to a single auction calendar.

**Component 77:** Default CPQR = Risk Cost x Extreme Value where Risk Cost is based on a technology-specific default risk of performance consistent with ACR and/or class accreditation while allowing for unit-specific assessments at asset owner's discretion. Remove CPQR from Gross ACR calculation and include as a standalone component in the MSOC calculation.

Resources have the opportunity to elect both the Default ACR and Default CPQR, one or the other, or neither.

**Component 83:** Same as PJM Package 1

**All other components:** Same as PJM Package 2