

Which of the following additional issues would your organization like to have considered along with the Quadrennial Review with the same targeted timeline to be applied to the 2028/2029 Delivery Year Base Residual Auction? (Select all that apply.) (Slide 4)

- Other components (please describe)

additional transparency on committee votes and more final decision making at the member level
seasonal auction
Redefining the PAI to reflect PJM's new operations paradigm under Conservative Operations. The PAI should be redefined to include the entire period PJM is under conservative operations.
We want to signal that item 3 above has some real issues if the large load does not come offline. So we can discuss all of these items, but that does not signify accent.
We support discussions of Prompt Auction; balanced schedules by LSE; and reforms to further enable DR and load flexibility. However, we do not believe targeting reforms to the 2028/2029 Delivery Year BRA as currently scheduled (currently June 2026) would be realistic. We would recommend targeting to the 2029/2030 Delivery Year BRA (currently Dec 2026). Additionally, these reforms in some respects are contingent on ELCC reforms and we would welcome progress on ELCC reforms being incorporated into the consideration of when to move forward with some of these other large-scale reforms.
Evaluate Back-stop provisions per Brattle recommendations
ELCC for thermal units, specifically gas units.
Returning the "residual" aspect to the BRA is key and something this LSE has been doing for years. That said, there are market impacts and market-manipulation implications to consider, so it needs to be fully thought through in the same way that potential market impacts from long-lead nuclear outages are mitigated. Regarding large-load flexibility, this LSE does not see much hope for the viability of adopting increased physical backup generation without revisions to federal emissions standards but notes there are other avenues being pursued. To wit: https://blogs.nvidia.com/blog/ai-factories-flexible-power-use/ , as well as low-emission, dispatchable generation options. If PJM can economically incentivize participation by large loads, there is benefit to that. Additionally, it will be important to track the implications of the emerging cyclical nature of changes to forecast brought on by changes to the forecast. There are already EDCs and TO zones announcing delays and deferments of energization of delivery-point requests, and this LSE expects those timeline extensions to continue and increase.

Sub-annual market
If DR is going to be considered, we think it should be looked at holistically. We believe there is value in having DR, but it does not provide the same benefits as other capacity resources. If there is an expectation that DR could be expanded, we should also consider the requirements for real-time telemetry for operations (to know what is actually available to respond instead of waiting 60-days), fuel cost policies, and must offer requirements.
holistic review of auction tenor and procurement strategy. From prompt to a longer term lookout, i.e. minimum 5 year forward market.
Sub Annual Markets: PJM has talked about the enhanced value of the ELCC with sub-annual markets for quite some time. PJM is also one of the last RTOs to take this step toward modernization and needs to move forward with this process.
A stable penalty rate framework is needed
Further ELCC reforms must be made to enhance transparency and encourage investment. Specifically, reforms should focus on: (i) enabling generation owners to be able to predict ELCC ratings over time class ratings as well as unit specific calculations; (ii) enabling generation owners to forecast the impact of extreme weather events on ELCC ratings; (iii) improving the ELCC rating of a unit that invests in improvements to unit performance. Whether and which additional reforms to the capacity market are pursued should be informed by the ELCC reforms.
We believe there are changes that could be made to the Fixed Resource Requirement (FRR) alternative to capacity market participation which would be beneficial to PJM and LSEs. As it stands today, FRRs, in our opinion, are too restrictive. Coupled with the volatility in accreditation, and it is understandable why FRRs - a potentially powerful tool to ensure resource adequacy -- have not been more widely utilized. Greater flexibility would allow for LSEs to more effectively hedge capacity while still allowing for the necessary signals to be sent to generation in the auctions.
We support efforts to harmonize TO and PJM load projections to ensure more accurate load forecasts
Delaying the 28/29 BRA to be a prompt auction allows about 2 years for development of Quad Review, prompt auction, large load additions (and related provisions related to demand response and load flexibility).
PJM ran scenarios for the ELCC task force but only plans to present a limited set of recommendations. Further, ELCC decisions reflect significant policy choices about resource adequacy and risk aversion that deserve attention from state-level stakeholders. In the long-term, PJM should consider mechanisms to increase state-level decision making in this space; in the short term, stakeholders and the PJM Board should be given the opportunity to vote on and consider the full range of ELCC scenarios instead of a couple hand-selected options from PJM staff.
ELCC rating methodologies

Subannual
Given the complexity of this reform, focus should be on a sub-annual capacity construct, further ELCC reforms and new large load additions. Similar to the position of the IMM, new large loads are so large as to render forecasting efforts ineffective for efficient and cost-effective system reliability planning. The level of potential forecast error is simply too large, and the load ramp requirements too extreme as forecasted. PJM could be pricing capacity based on forecasts that could be too short, or too long, and planning horizons will likely be insufficient for efficient resource procurement adjustments. Given this very likely reality, PJM should develop a method to ensure LSEs for new large loads bring on sufficient NEW generation capacity to serve a large percentage of their load. In fully regulated states, this could be in the form of EDC LSE requirements, or in unregulated states, this could be a requirement imposed on an LSE supplier for the new large load. PJM should develop a process for establishing a trigger for this LSE requirement [reserve shortages, or anticipated reserve shortages], large load definitions, new generation requirement levels, a process for accelerated new generation interconnection, and performance requirements for such new resources.
Additional attention to bring on storage and hybrid reference resources
See extended comments in next text insertion box.

Please provide any comments your organization has on any specific aspects of PJM's initial Quadrennial Review proposal.

PJM has not taken advantage of the opportunity to address multiple issues wholistically. Gas Electric Coordination, the capacity market reforms, ELCC review, and reserve market reform has been subject to being considered separately and in a silo.
We do not recommend pursuing the 'Prompt Auction' or 'Balanced Schedules by LSEs' issues. Given the rate of large load additions and the subannual capacity issue. We see these as far more urgent and time sensitive.
We have concerns that the capital costs being used are not representative of the current or future markets, but instead is representative of a market that no longer exists. This along with artificial price ceilings is a dangerous combination when it is a known fact that PJM needs new resources to come online for resource adequacy.
We proposed to maintain the CT as the Reference Resource but update for technology advancement and CONE and maintain the current shape of the VRR Curve.
Higher Gross CONE cap; CT as Reference Resource

Retention of the VRR curve shape ensures a level of certainty while more sophisticated solutions, like the MRI curves can be further examined. Further evaluate back-stop provisions to ensure ability to timely procure resources to meet future resource adequacy needs and maintain reliability.

The CT is a quick to build resource that relies upon capacity market revenue. The region is encouraging dual fuel for reliability, so it makes sense for such a reference resource to be dual fuel. This is also the cheapest resource to operate. Seeking a durable curve that is easy to predict and explain. We also like the flatter curve in the PJM or IMM proposals as it will reduce the volatility in the pricing.

On a conceptual level, this LSE does not support PJM's proposal to revise the reference to a CC and instead agrees with the IMM and LS Power that the capacity construct is designed around delivering the "missing money" to the relevant resource, which is the CT.

Although the proposed PJM VRR stability features mitigate the impact of overestimating the EAS offset, we believe that the accuracy of the EAS offset continues to require attention.

PJM and stakeholders should finish the Quad Review as scheduled. We are not opposed to exploring these other topics/design options but they should not be part of the Quad Review which is expected to be completed in the next 6 weeks. Nor is it reasonable to expect education, design, and execution of these other topics to be completed in the next ~6 months for a timely implementation for the 28/29 auction cycle that will begin in or around January 2026.

We support, in part, PJM's initial Quadrennial Review proposal as it will better account for differences between summer/winter resource performance capabilities. Implementation of additional seasonal granularity could facilitate streamlined development and implementation of a sub-annual capacity market. We have concerns about the impact of PJM's selection of Combined Cycle as the reference resource to determine CONE in most of the RTO given the political pressure and other factors that led to the retention of CT as the reference resource for the 2025/2026 DY. We continue to consider all presented proposals. We support the development and transition to a sub-annual capacity market that appropriately models seasonal load projections, resource accreditation and other components to produce reliability requirements designed to ensure high levels of reliability at the least cost possible for consumers. We do not believe this transition can be thoughtfully developed and accurately implemented on a timeline that would permit application to the 2028/2029 Base Residual Auction. That said, we believe it is critical for stakeholders to set a reasonable timeline for completion of this work and strive to meet that target. We agree that there are related workflows within PJM that could affect the VRR curve which should be addressed expeditiously. However, given the tight timeline for a FERC filing to implement the Quadrennial Review proposal (September 2025), we do not support rushed processes for other important issues.

None at this time. We are still processing the proposals and the thoughts. We found the work of PJM and Brattle to be very helpful. Brattle's evaluation and research were extremely helpful and we support much of what they presented.

First, clarity is needed about the definition of a balanced approach. A "balanced approach" is one where the capacity market is fully residual. LSEs should be permitted to procure capacity through owned generation and bilateral contracts, and only then required to participate in the residual auction to satisfy any remaining capacity obligation. Achieving this clarity in definition is essential to ensure stakeholders and PJM don't talk past one another. This balance we should aim to achieve. We believe this approach is critical to shrinking and simplifying the resource adequacy construct in PJM. We do not need to broaden the construct and make it more complex. We discuss what we mean by a "balanced approach" and opportunities to shrink and simplify later in our answers to this poll. Second, our company appreciates that PJM limited its proposal to the elements required of the Quad Review pursuant to its Tariff responsibilities given the current market design. Third, our company also appreciates PJM's position that the capacity market is designed to reveal the marginal cost of maintaining resource adequacy. However, it has been inappropriate to continue to attempt to design capacity market reforms that focus solely on efforts for the supply side of the market in an attempt to create long-term investment signals that incentivize new generation to enter the market. These recent market reforms have had limited success in achieving the goal of incentivizing new investment, have resulted in numerous corrective filings, and continue to expose RPM to inefficient and unreliable outcomes. The rule churn and instability have become unsustainable. It is time to begin to shrink and simplify RPM; not make it broader and more complex. Our company also appreciates PJM's position that the current design relies in significant part on the assumption that the load is willing to pay the cost of building a new resource to meet the 1-in-10 reliability criteria. This assumption may not be effective in today's environment if the load's only way to indicate a lower willingness to pay for reliability is demand based mechanisms (ie Price Responsive Demand, Peak Shaving, BTMG) that may not be sufficiently designed to properly provide an LSE the ability to properly hedge price and quantity volatility in the long term (for longer than one year). While Demand Response may be a mechanism that some LSEs can use to hedge price and quantity volatility, it is long overdue to either remove or limit it as a supply resource in RPM or begin to model it as a demand-side resource to represent the savings it should provide to the load. Our company agrees that PJM's Quadrennial Review proposal may stimulate stakeholder interest in broader discussions beyond the scope of the Quadrennial Review and support consideration of additional market design changes that will require further stakeholder engagement. Our company believes that, given the extreme pricing likely to result from future auctions as the supply-demand balance tightens due to load growth, the immediate focus for the 2028/2029 BRA should be on developing demand-based, not supply-based, reforms. The scope of an immediate stakeholder process should focus on solutions that address the increase in large load additions and demand-side solutions that can be improved to help load hedge volatility in the long term. Given the proven complexity of supply-based reforms, it is critical that time and deliberation be taken. Our company sees the value in supply-based reforms (such as Sub-annual and prompt constructs) IF designed and implemented effectively. Therefore, these should be considered as long-term efforts targeted for the 2030/2031 BRA, when auctions are planned to be reinstated according to the schedule defined in the tariff. It makes sense to begin the meaningful development of a more granular resource adequacy construct after a period of focus on demand-side issues, while complicated supply-side reforms (ELCC, must-offer, Price collars, Quad Review, RRI) stabilize for market participants.

Stabilize penalty rates through a quick fix or "CBIR-lite" process. Formally consider a 2-hour battery as a reference resource in the system. Evaluate locational cost savings within the ComEd zone for new builds - factors such as labor, taxes, and improved interconnection (IX) costs could significantly influence total build costs.

The Quadrennial Review will not resolve the underlying issues with the capacity market, which did not incentivize new generation to come online at a time when it was and is most needed. However, we support PJM's proposal to add more stability to the VRR Curve, which leads to more predictable outcomes for both customers and generation owners.

No Comment

In its initial Quadrennial Review proposal, PJM has proposed for the Reference Resource (RR) in the ComEd zone to be 4-hour Battery Energy Storage System (BESS). This would be a break from what the RR has been in the past, and would make ComEd the only CONE area that did not use Combined Cycle (CC). We encourage PJM to engage with the Illinois Legislature on such a change, especially given that it quotes the Clean and Equitable Jobs Act (CEJA) as part of its rationale. CEJA allows for unintended consequences (such as the highest CONE in the RTO) to potentially be mitigated by lawmakers, but only if they are aware of the issues.

The quadrennial review process should remain within the four corners of the tariff and PJM should offer a proposal that includes a CONE that is reflective of the actual costs of building new generation, accurately reflects EAS revenues, and employs a VRR curve that is steep enough to incent new entry during periods of greater scarcity. For this reason, we appreciate PJM's decision to move away from items like an enhanced reliability backstop mechanism, MRI demand curve, and reference price. While we are not opposed to PJM's use of a combined cycle, doing so introduces potential volatility. We are concerned that PJM's proposed VRR curve attempts to address this increased volatility with a cap that is too low to incent new generation during periods of greater scarcity while potentially overvaluing capacity when there is less scarcity.

The price cap is too high for consumers to bear, especially in CONE areas with lower E&A offsets, such as EMAAC. It is not clear why a 1.75 multiple to Net CONE is appropriate, especially as those numbers approach and even surpass Gross CONE. We recommend lowering the multiplier to 1.5 -- we also think the PA PUC proposal is worth considering.

We emphasize the importance of getting this market signal right. While we understand the immense pressure PJM is facing to bring prices down, we warn that if predicted prices fall below the cost of new generation, the result will mean high rates and no new units. The feared windfall for existing generation units occurs when the capacity price is high but still underplays commercial realities. We urge PJM to move forward with a Natural Gas Combustion Turbine reference resource. Maintaining a CT reference resource would lessen the urgency of Energy & Ancillary Service offset revisions and ease stakeholder concerns about whether the proposed amendments to the VRR curve are sufficiently stabilizing. PJM's recommendation of a Natural Gas Combined Cycle reference unit is deeply concerning, as the presumed economic viability of CC resources is heavily dependent on Energy & Ancillary Service offset assumptions. If E&AS assumptions are overstated, as they have been in the past, the market signal will miss the mark. And though PJM says that the issues spurring the CT reference resource filings are mitigated by PJM's VRR curve proposal, we are not convinced by the limited analysis which led to this conclusion. We support PJM's general three-point curve design but does not understand the rationale for the proposed points. We continue to believe that a three-point curve provides a sufficient approximation of demand, and that adding another layer of complexity will not provide commensurate reliability benefit. Regarding the points on

the curve, we appreciate the effective simplicity of Point B being set to 0.5 x Point A. However, we would request that PJM evaluate how a 0.6 multiplier to Gross CONE for Point A holds up if the reference resource were a CT instead of a CC.

It seems dubious that any such reforms could rationally be developed on the proposed timeframe. Further, holistic consideration of market design should be considered, rather than piecemeal approaches that invite risk and uncertainty for every auction.

PJM's goal of reducing extreme pricing swings is not achievable based on the parameters proposed for Point A [maximum capacity price], for zones with low EAS revenue offsets for zones like EMAAC. The resultant maximum estimated capacity price of \$1,177, which is over \$500/MW-D above NetCONE due to the 1.75 netCONE multiplier, is clearly unreasonable. This premium [excess of Point A over NetCONE] should be in the \$200 range [either fixed, or achieved by various other methods]. We are also open to discussions around Market Reliability Impact approaches that may efficiently provide greater revenue and market stability.

The BESS CONE for the ComEd zone seems high. The IMM recommendation seems to be a more reasonable calculation of BESS CONE.

Three comments (by way of preface, but also informing all of our responses, following by discussion of specific issues. 1. As has been argued in the current stakeholder process for the Quadrennial Review, the additional issues suggested by the survey form if fully considered would potentially effect major changes to PJM's resource adequacy construct, may require Tariff amendments and will likely require major education and discussion among stakeholders and State jurisdictions. 2. It is mentioned later in the survey, as an additional issue,, but should be a/the central issue to be addressed namely that posed by large loads/data centers, advancing the rigor of the large load forecasting process, considering possible uniform, footprint wide large load interconnection requirements, and segmentation of large load (data centers) from the capacity market. 3. We have raised many times previously that PJM must to provide market impact studies of proposed rule reforms/scenarios while in development and before final decision (mindful given inevitable limits on resources that this does not require addressing every proposal, but a reasonable sub-set of the leading alternatives under consideration). Otherwise (and even with), there is a profound asymmetry in access to information, creating a huge obstacle for active and informed engagement by consumer advocates, States and the public. This should be PJM's practice in carrying forward its Quad Rev. analysis and all major market reform initiatives. Mindful also that PJM is not a guarantor of forecasts and cannot be in that business (so any effort caveated by a reasonable disclaimer). Responding to the narrow confines of the survey question. Other: The use of an MRI curve for the RPM. Other: The use of a market-determined Net CONE through a tender for a long-term (10-15 year) contract for capacity of about 200MW-500 MW. Other: a sub-annual market. Greater and true integration of DR and load flexibility into the RPM construct. Other (or within the topic Balanced schedules for LSEs): PJM has intimated that this issue will be considered. If it is, it needs at a minimum greater education and identification of tools for managing of transition and-interaction between greater use of longer-term procurement (if that is what the balanced schedules issue contemplates) and existing restructured states' standard offer procurement mechanisms and legal and technical capacity to participate. Any such change implicates differences among States, with differential impacts on the States given their different regulatory histories and authorities (e.g., differences in rate recovery and ability to implement between regulated/vertically integrated states and restructured/retail states with respect to longer-term tenders). Among, but by no means all of the

questions needing to be addressed: How would a LSE obligation be defined if satisfying its LDA internal requirement with adequate transmission transfer capacity, yet RTO-wide scarcity still results due to load growth elsewhere? How to define RTO scarcity sufficient to trigger action and parse out the scarcity to individual LSEs (and States)? How to mitigate against high prices (including but not limited to length of procurement term), if the purchase mandate ensues when prices are (or presumed) to be high and above estimates for future periods? Prompt auction - numerous additional issues would need to be explored and vetted if a prompt market were to be adopted (even if current auction arrangements due to external circumstances approach a prompt market). Among the issues, need to expand PJM forward planning, better mitigate market power of incumbents, improve deactivation procedures (beyond current stakeholder discussion). Separate treatment and segmenting of the capacity market to address large load additions. The large load addition issue was not separately listed in Part 1, and is a central issue that we believe needs to be addressed. Additional issues to further dimension the large load addition issue. Other: Bring Your Own (new) Generator. Other: A revision of cost allocation so that large loads that cause the need for new transmission are directly allocated those costs. Among the issues raised by the current Quadrennial review in its current formatting, we have serious concerns about the reference resource choice, and the termination of the resource's annualized cost parameters.

Which of the following additional issues would your organization like to have considered along with the large load addition issue? (Select all that apply.) (Slide 5)

- Other components (please describe)

Prioritize generation that is brought by load.

Imposing obligations on LSEs to have (some measure of) resources dedicated to serve the large loads before placing the load into the forecast impacting RPM and RTEP.

See above.

Locational ELCC, Subannual capacity market, Capacity Market Cost Allocation

Our support for additional design considerations is predicated on a clearer understanding of PJM's desired completion date of the large load addition issue. If PJM's goal is to have something done for the 28/29 BRA set to happen in June 2026, stakeholders have scant time to take on additional scope. We support further enabling DR and load flexibility and it may best be considered in conjunction with the Large Load Addition process. However, it is unclear what the scope of this project entails and, developing upon a further understanding of these details, may make a ~6 month process challenging. If PJM is looking at a longer stakeholder process for large load additions (~9 months or longer, 29/30 implementation) then taking on reforms to DR and load flexibility may make sense. As noted in previous replies, we are open to considering other design changes. However, these other changes need not be tied to large load addition revisions.

Potential requirements to bring generation with large loads over a certain size, similar to other regions of the country. Identifying was to limit stranded costs/trailing costs if a large load does not materialize or goes out of business. Should there be credit requirements in place to cover those scenarios so the costs don't get shifted to everyone else in the footprint? Review the current transmission allocation method. All zones are currently allocated on the 1CP, except Dominion. This is a very strong price signal for high load factor entities to reduce their load during a signal hour and shift the transmission costs to other members.
Sub Annual markets. See above comments. all of them are important to consider, yet, some are much more important.
Planning Processes for Large Load Additions
Further ELCC reforms must be made to enhance transparency and encourage investment. Specifically, reforms should focus on: (i) enabling generation owners to be able to predict ELCC ratings over time class ratings as well as unit specific calculations; (ii) enabling generation owners to forecast the impact of extreme weather events on ELCC ratings; (iii) improving the ELCC rating of a unit that invests in improvements to unit performance. Whether and which additional reforms to the capacity market are pursued should be informed by the ELCC reforms
sub-annual markets
We support efforts to harmonize TO and PJM load projections to ensure more accurate load forecasts
Note that large load additions and demand response and load flexibility would be considered along with Quad Review and prompt auction, per response in first question.
There is an urgent need for large load certainty and visibility. When regulators and generators are skeptical of load forecasts and question whether projections are overblown with speculative requests, the market will not respond as needed.
Subannual
As noted above, beyond sub-annual capacity market reforms and large load additions, we recommend that PJM ensure that its ELCC methodologies accurately reflect the contributions to reliability associated with existing and new generation and storage resources. Current modeling assumptions may overstate winter risk, due to reliance on outdated performance data that does not reflect current operating practices and requirements. PJM should also continually evaluate weather trends to ensure relevant weather histories are reflected in anticipated weather conditions given climate change circumstances.
See response to prior questions in the text insert..

For any issues that are not considered along with the Quadrennial Review or large load additions, which issues would your organization like to see addressed in the stakeholder process? (Select all that apply.) (Slide 6)

- Other components (please describe)

Correct ELCC accuracy and errors
See broader comments noted herein.
Make improvements to strengthen the FRR alternative.
Imposing obligations on LSEs to have (some measure of) resources dedicated to serve the large loads before placing the load into the forecast impacting RPM and RTEP. ELCC for thermal units, specifically gas units
This LSE would like to explore the potential benefits sub-annual procurement might produce for minimizing CPQR risk premiums in capacity offers and thereby reduce overall capacity-procurement costs. The IMM has long advocated for an hourly approach, and PJM has yet to present an evaluation of whether that is currently technically feasible or economically beneficial. It is past time to understand the pros and cons of making such a change. For all other issues, see above.
Continued ELCC Development- 1) Predictability/stability in ELCC valuation to support longer term bilateral transactions 2)DR being able to reflect their excess winter capability. Aligning EAS offset between Reference Resource and unit specific calculations. Currently Forward EAS is used for Reference Resource in the Quad Review and Unit Specific EAS for Market Seller Offer Cap and Minimum Offer Price uses Historical EAS offset.
holistic review of auction tenor and procurement strategy. From prompt to a longer term lookout, i.e. minimum 5 year forward market.
1. SATA and the ability to utilize storage as a transmission asset will provide additional reliability tools to PJM and individual utilities. 2. CETO/CETL - If transition to a seasonal or sub-annual market is pursued that uses seasonal ELCC data to calculate CETO, then a seasonal CETL study will also be needed to ensure we are comparing apples and apples. Other concerns with the CETL process that should be addressed: 500 kV generation that is physically deep within an LDA is considered outside of the LDA- this creates a disparity between treatment of generation physically located in the same place within an LDA when the case dispatch is set. Generator minimum dispatch limits (PMin) are not respected during the mean dispatch Monte Carlo sampling, which can result in very unrealistic dispatches within an LDA. Non-transfer path reliability violations (i.e. violations that are local in nature and in no way related to a transfer path between an LDA in question and the Rest of PJM) are not ignored and should be. 3. Stakeholder governance - PJM and stakeholders should consider process changes that delineate clear paths forward and the exercise of PJM independence to protect against stalemates on initiatives that PJM believes are important to grid

reliability (operations/markets/planning) but fail to garner sufficient stakeholder voting support after lengthy and time consuming discussions through the CBIR process.
Performance expectations and penalties for performance (Capacity Performance).
Stabilize penalty rates through a quick fix or "CIBR-lite" process.
Further ELCC reforms must be made to enhance transparency and encourage investment. Specifically, reforms should focus on: (i) enabling generation owners to be able to predict ELCC ratings over time class ratings as well as unit specific calculations; (ii) enabling generation owners to forecast the impact of extreme weather events on ELCC ratings; (iii) improving the ELCC rating of a unit that invests in improvements to unit performance. Whether and which additional reforms to the capacity market are pursued should be informed by the ELCC reforms
Independent review of ELCC assumptions/model
We are open to a 2-season (Summer, Winter) construct.
Reforms to market mitigation and the market seller offer cap.
We support efforts to harmonize TO and PJM load projections to ensure more accurate load forecasts
ELCC rating methodologies
ELCC Stable, Transactable, and Intuitive Design
Sub-annual capacity market, further ELCC reforms
See discussion in response to Part 1 question.

Please rank your organization's prioritization of these issues (1 = Highest, 5 = Lowest). If you do not have an entry for "Other," please rank it last. (Slides 7-8)

- Other components (please describe)

ELCC reforms; Rank 1
large-load interconnection queue; Rank 1

other components highlighted above; Rank 1
holistic review of auction tenor and procurement strategy. From prompt to a longer term lookout, i.e. minimum 5 year forward market; Rank 1
Stabilize penalty rates through a quick fix or "CIBR-lite" process; Rank 1
Further ELCC reforms must be made to enhance transparency and encourage investment. Specifically, reforms should focus on: (i) enabling generation owners to be able to predict ELCC ratings over time class ratings as well as unit specific calculations; (ii) enabling generation owners to forecast the impact of extreme weather events on ELCC ratings; (iii) improving the ELCC rating of a unit that invests in improvements to unit performance. Whether and which additional reforms to the capacity market are pursued should be informed by the ELCC reforms; Rank 1
FRR Reforms; Rank 1
Reforms to market mitigation and the market seller offer cap; Rank 1
ELCC Stable, Transactable, and Intuitive Design; Rank 1
No rankings provided – disregard; Rank 1
ELCC, Large Load Additions; Rank 1
Large load additions, see prior responses with fuller discussion; Rank 1
from above, transparency and decision making at the member level; Rank 2
ELCC Winter Capability; Rank 2
ELCC for thermal units, especially gas units; Rank 2
Locational ELCC, Capacity Market Cost Allocation; Rank 2
Harmonization of TO and RTO load forecasts; Rank 2
ELCC changes to better account for winter risk and improved gas performance; Rank 2
ELCC issues; Rank 3

Improvements to FRR Alternative; Rank 3
ELCC rating methodologies; Rank 3
Planning Processes for Large Load Addition; Rank 4
See comments below; Rank 5
None; Rank 5
Na; Rank 5

Please provide any additional feedback your organization has regarding the sub-annual issue.

PJM wasted 2 years by not studying seasonal since '23 CIFP. How could it be implemented, how could dispatch be handled if several periods a day. How granular is feasible. If you can't do it, hire a consultant.
Sub-annual auctions help get the load forecast right, especially with higher winter loads we are seeing. That deals better with the cost of capacity.
The current ELCC process does consider the seasonal aspects of capacity. However, a subannual consideration of capacity would be more transparent and allow for more effective resource participation, i.e., wind and solar seasonality.
Development of a sub-annual capacity market has languished for years, and it is long past time for PJM to work seriously on this issue.
One issue that Sub-annual does not solve, that would need to be solved, and it does not appear to be solvable at this point, is that clearing prices, say, in a 2-season market have to be 2x the applicable annual BRA price cap to deal with units that have annual costs but only clear in one season. Thus, sub-annual might simply move our current 'problems' around to one season and concentrate them in that one season, but not resolve our problems. Even then, a 2-season market, for example, might raise the FPR in the winter season, while retaining winter-ELCC foundation. In this scenario, we will exacerbate the struggles we have.
We have supported moving to a seasonal/sub-annual construct for years and think this issue is long overdue to be addressed by PJM. We have direct experience with seasonal implementation in MISO, which has been a positive and welcome change to better align risk and capacity obligations across periods of the year. This is the #1 issue we think PJM should address to address each season's unique reliability needs, account for seasonal outages, and allow the needs of the system to be better matched to the capacity needed to meet those needs.

We think it is necessary
We would have ranked "balanced schedules by LSEs" a 1 but the poll wouldn't allow that. We also have ranked Sub-Annual a 5 but again the poll wouldn't allow it.
Implement quickly
Although it is unclear whether a sub-annual market design will result in lower costs, there is still reason to believe a sub-annual market design will better reflect the actual seasonal variations in demand and supply, unlike an annual market which averages demand throughout the year. A sub-annual market may also better facilitate the transformation of the grid and load patterns, allowing for a more efficient transition of resources. This is an important issue, and the timing is right to begin an earnest inquiry.
Supportive of examination of a sub-annual auction however this is a long-term effort. PJM should establish a reasonable timeline to complete the work, even if its Board elected to establish a CIFP process to develop a sub-annual capacity construct.
Before moving to sub-annual, or at the same time move to sub-annual if we go back to using EFORd for thermal units in the interim, adopt reformed ELCC methodology for thermal units. The reform not only needs to address winter CIRs for gas units but also the details in the modeling and assumptions made in the modeling. We also need to address the impact of large loads leaning on the market. Their impact will be exacerbated by a focus on sub-annual.
Common believe has long held that the capacity market needs to be "constructed" for load since it is too unsophisticated and consolidated enough to communicate in the market by producing its own pricing signals. One of the benefits of the arrival of large loads is that the time of load's sophistication such that it can achieve the parity in market information between supply and demand required to unlock many of the fundamentals of market-based economics appears to have come to pass. To that end, this LSE would like to see advancement in recognition of that evolution through the introduction of symmetrical requirements for large, sophisticated loads that already exist for their generation counterparts to include, but not be limited to, the introduction of an interconnection queue for large-load additions.
It is important to get sub-annual right. In particular, it is important for the market to ensure revenue adequacy for resources that only clear for a subset of sub-annual periods. The offers used in RPM if cleared for subset of sub-annual periods must reflect annual revenue requirement collection and MUST BE fully captured in the clearing prices for those sub.
We are in support of exploring the sub-annual construct. A sub-annual construct could solve some of the complexities that exist in the annual market that attempts to capture substantially different summer and winter risk and performance profiles in a single product. As with all of these fundamental market changes listed on this survey, these types of issues require ample time to educate, develop, review and implement. A 6 week runway for major market changes like this is not an appropriate timeline.

We've been talking about a sub-annual auction for years without embarking on design systematically--it's high time to do so. A sub-annual market goes well with the move towards ELCC and will allow us to better address different risk patterns with the relevant resource types.

If there is a chance of making multiple jumps to sub-annual (semi => quarterly => more granular) we would like to evaluate just doing it all at once.

There may be benefits to transitioning to a sub-annual market, but our support will depend on the actual proposal, the goals it seeks to achieve, and potential improvements to reliability and stabilizing market-related customer cost. To be properly developed and implemented, these are years-long initiatives and should not be subject to rushed processes as this increases the likelihood of unintended outcomes that will require further tinkering. Generally supportive of a sub-annual capacity market construct designed to account for seasonal changes in resource performance that ensures accurate capacity procurement requirements and reasonable cost to customers. We encourage PJM to include, as education during the stakeholder process, a thorough review and presentation on sub-annual or seasonal market adoption and transition in other RTO/ISOs

1. Now is the ideal time to focus upon evaluating and incorporating the transition while every resource adequacy path moving forward has significant uncertainty. 2. A sub annual market design would create better alignment with reliability risk patterns and efficient resource procurement. 3. Finally, PJM's move to the ELCC framework was presented as a core component of a sub annual market design. If PJM decides to abandon the sub-annual market design it is also worth re-evaluating the value of the ELCC framework.

The sub-annual issue has been an important one for our company in previous stakeholder processes (RASTF and CIFP) since 2022, as the RPM was faced with addressing a rise in renewable resource penetration due to state policy initiatives and regulatory policy initiatives, such as MOPR. PJM should also refer to the CIFP vote to gain insight regarding stakeholder's preferences regarding sub-annual designs, particularly prior to the implementation of Marginal ELCC and the recent load forecast increases. When sub-annual concept design was previously discussed, PJM, IMM, and many other participants presented conceptual designs and ideas. In all cases, while the designs provided novel concepts to be considered, none of the sponsors were able to develop a robust enough design to be implemented in a shortened timeline. The previous conversations lacked strong enough prototypes to develop the complex rule set needed (as was done in other markets such as MISO or NE-ISO, which have taken extensive time and effort to design solutions that may be effectively implemented). At the time sub-annual constructs began to be discussed in 2022, the demand growth challenges of today were not considered as a risk. Only supply risk had been identified. Today, we are faced with both demand quantity spikes and price shocks that require meaningful solutions. There has not yet been sufficient analysis to support the notion that a sub-annual construct will attract the supply necessary to meet growing demand, nor whether there will be an adequate cost-benefit for consumers in the end.

It works with the ELCC methodology. Additionally, it is unclear how a market can accurately price capacity without considering seasonality giving the seasonal fluctuations that now are regularly occurring.

It is important to be careful about the implications to load and how the implementation will be phased in.
Further ELCC reforms are needed before a sub-annual auction can be implemented to ensure predictable and stable market outcomes. Specifically, ELCC reforms should focus on: (i) enabling generation owners to be able to predict ELCC ratings over time class ratings as well as unit specific calculations; (ii) enabling generation owners to forecast the impact of extreme weather events on ELCC ratings; (iii) improving the ELCC rating of a unit that invests in improvements to unit performance.
No comment.
We are open to a sub-annual construct. However, as an LSE which also covers parts of the MISO footprint, we have seen what such a shift can entail, and we strongly recommend that PJM does not hastily go through a process which has the potential to have a negative impact on reliability.
We support the recently introduced problem statement and issue charge by PA Governor Shapiro exploring the development of a sub-annual capacity market. However, the current timeline proposed in the issue charge is not realistic, and PJM and the governor should work collaboratively to develop a timeline that allows for adequate stakeholder discussion as well as implementation of any proposal. It may also be advisable to run at least one shadow auction cycle so that all stakeholders fully understand the potential results and any significant issues can be addressed prior to implementation.
None
We are supportive of investigating a sub-annual capacity market construct through the stakeholder process.
A seasonal capacity market will help increase transparency and streamline market information related to summer and winter needs. Also, resources attuned to specific seasons will also be valued more appropriately in the market. These are laudable goals to pursue and achieve. That said, dealing directly with large load and load flexibility is a higher priority for us.
We support a two-season sub-annual capacity market construct. Reform to ELCC rating methodologies must accompany this change.
We are concerned that an unruly scope for subannual reforms will only further muddy the waters of PJM's current resource adequacy picture. Instead, consider exploring this concept within the Strategy Refresh. Subannual markets seem reasonable in theory. However, the implementation of subannual auctions in PJM will further complicate the ELCC paradigm if it is not first rendered stable, predictable, and intuitive. An unavoidable topic in subannual design discussions is careful consideration of risk allocation. For example, should summer hours and winter hours be weighed the same? Or should more summer hours be evaluated in the risk pool? Is LOLE producing results that are aligned with common sense, or would a different risk metric (like EUE) be more appropriate in a subannual construct? All these questions and more will need to be thoroughly discussed and vetted. If a subannual reforms are pursued this year, there must be sufficient time and resources allocated

to thorough consideration of all capacity constructs that could be impacted, as well as a careful implementation timeline. We recommend that PJM look to MISO for lessons learned on a subannual construct implementation. At the June FERC Resource Adequacy Technical Conference, MISO leadership regretted the pace at which the subannual construct was implemented, wishing that they had not moved so quickly without thorough testing. We hope that PJM will commit to avoiding the chaos of implementing an underdeveloped capacity mechanism.
PJM has provided data that demonstrates material understatement of solar accreditation under the present annual model.
PJM should prioritize the sub-annual capacity reform issue, and endeavor to implement these reforms in time for the 28/29 BRA, if practicable.
The sub-annual approach is important to identifying risk and sending clear signals. PJM should prioritize the sub-annual construct to maintain reliability. This is the priority for us.
Discussions about adoption during the 2023-4 CFP seemed to have bogged down in major part because of the undue complexity in implementation. Other ISOs experience (MISO) may/will be informative in reducing this problem. The issue could result in market improvements by better valuing/accrediting renewables and result in better alignment with reliability risk patterns and efficient resource procurement.
Care must be taken in market design to ensure, should multiple capacity products exist, that resources are receiving sufficient annual revenues across all products to solve the "missing money" problem and ensure adequate incentives to retain existing resources and attract new resources.

Please provide any additional feedback your organization has regarding the prompt auction issue.

How would that match the time it takes to build new generation? It would make things worse. No wonder Constellation thinks it's a good idea.
Moving to prompt auctions get the load forecast more accurate and, like sub annual will help capacity costs.
There are two reasons why a prompt market makes sense. First, the E/AS offset would be more accurate as it would need only to forecast the following year under which there are liquid market prices. Second, with the constant need for making adjustments to RPM, the 3-year out auctions are often delayed and you are locked into the existing design even as changes are needed.
Unless and until it is possible for new power plants to be studied, permitted, and built within 3 years, the 3-year-forward auction schedule does not make sense. A prompt auction has proven viable in other locations.
We do not recommend pursuing this issue.
Do not think it is a good idea.

Implement quickly
A prompt auction in PJM could offer greater efficiency and flexibility, but it is crucial to consider its potential impact on long-term resource planning and price stability. Although it is worth discussing and could yield more accurate pricing, prompt markets can also be subject to customers experiencing greater price volatility due to unforeseen events impacting supply or demand closer to the delivery year.
Supportive of prompt auction. Examine benefits and risks associated with running capacity auctions closer to delivery year. Consider impacts to LSE procurement of capacity and FRR Entity participation.
Although PJM has defacto been experimenting with a prompt auction, we do not support that, If the auction were intended to support build and plan system, the forward auction better incents build than prompt. We believe we should get back to a residual reliance on the capacity market. The market can't drive the whole build and operate scenario for the entire PJM region. LSEs like us have an obligation to serve and must have a means to ensure that its portfolio meets its needs and complies with PJM requirements without undue volatility and uncertainty.
This LSE does not see the benefit of pursuing this concept.
We support exploring a prompt auction. Consideration of the market design, including education, design, review and implementation will take significant time to and should not alter the current auction schedule.
Prompt auctions should not be considered the default solution and stakeholder discussions should include a more holistic review of auction tenor and procurement strategy. From prompt to a longer term lookout, i.e. minimum 5 year forward market. scoping work to only consider prompt timing would exclude other potential solutions that should be considered.
There are pros/cons to a prompt auction construct and analysis. Weighing the pros/cons of both shorter and longer horizons should be part of the stakeholder process for such a change. To be properly developed and implemented, these are years-long initiatives and should not be subject to rushed processes as this increases the likelihood of unintended outcomes that will require further tinkering. There are several considerations that should be evaluated as PJM considers moving to a prompt market construct. One on hand, under the status quo, there is a concern that new resources may clear in a capacity auction with a 3-year lookout but then due to delays (financing, supply chain etc.) may not be available during the Delivery Year. Moving to a prompt auction provides more assurance that resources clearing the capacity auction are existing resources and those reasonably expected to come online within a short time period. On the other hand, a prompt market may fail to send an accurate price signal that matches with the time it takes to construct a new resource (i.e. 3-year market with 5-year build time). A capacity market with a longer horizon may be needed to adequately incentivize new resources. A prompt auction may result in higher capacity market clearing prices, particularly where reserve margins are forecasted to be slim. Clearing price/customer cost should be considered when evaluating transition to a prompt auction structure.

<p>We are not yet convinced that RPM would benefit from a prompt auction timeline and believe more evaluation is needed. With 13 different states with regulated and unregulated retail jurisdictions, moving to a prompt auction (one year) or a less than 3-year auction schedule must be evaluated to consider the new load profiles, rate constructs, and demand capabilities. Because of the changing profile of demand, there WILL be challenges with going to a less than 3-year auction window (while we are still in an accelerated auction timeline).</p>
<p>Prompt could improve the inputs to the capacity auction with better inputs as the auction is closer to the delivery year.</p>
<p>PJM should discuss with individual states to understand how it will impact state processes. Additionally, the three year forward auction was designed to send price signals in advance of when resources are needed. Moving to a prompt auction eliminates that signal, which is a key purpose of the capacity market.</p>
<p>If there is support to move to a prompt auction approach sufficient runway to allow FRR entities to address changes in the process must be provided.</p>
<p>As has been stated, we have load in both PJM and MISO, and can therefore provide a unique perspective on matters in one RTO that are being proposed in the other. We caution that a prompt auction is easier said than done in an RTO with as much retail choice as PJM. In MISO, over 90% of load is vertically integrated. This is perhaps why the prompt auction construct has worked within its structure. In PJM, a prompt auction may not be the right fit..</p>
<p>We believe that a 3-year forward auction posture is the most effective method for sending the proper price signal for generation to enter, and exit, the market. Prior auction delays have exacerbated the current resource adequacy challenges, and PJM should make every effort to return to a 3-year forward posture as expeditiously as possible.</p>
<p>None</p>
<p>We are supportive of investigating the transition to a prompt auction through stakeholder process.</p>
<p>We recognize that a prompt auction design may have benefits worth exploring. However, we do not expect a prompt auction to resolve the primary stressors on RA and recommend prioritizing the other items.</p>
<p>We believe prompt auctions that run in a true 3-year forward facing schedule are of the utmost importance.</p>
<p>We believe it may be appropriate to evaluate whether 3-year forward auctions continue to be the best fit for a capacity market that will be increasingly short and volatile for the coming decade. However, we believe that moving to a prompt auction is a high-level market design consideration and therefore, is better served in a high-level, holistic discussion, like the strategy refresh.</p>

Notwithstanding the foregoing, moving to a prompt auction has multiple detrimental impacts. It fails to provide an actionable forward signal to build, it provide less guidance for PJM transmission planning, and it could radically change the risk of serving default service retail loads.

We do not believe this issue is of top priority. The 3-year forward mechanism has worked well for over a decade and provided more than adequate resource adequacy given reasonable levels of positive and negative growth. Only recently is this model being challenged but only because of extreme level of data center load additions. It is more important to deal directly with the data center related problems than redesign the entire market.

This issue deserves robust discussion. The prompt auction provides more flexibility as generators plan development and retirement. The 3 year forward also is useful for sending clear signals.

Prompt auctions expose loads to the exercise of market power and do not allow for new entry to counter-act the market power of existing generators. Issues such as expanded retirement notification periods, more advance planning by PJM for retirements, market entry and broader sourcing of alternative (beyond the default resort to transmission) need to be considered at the same time..

A prompt auction would fail to provide an actionable forward-looking price signal that is necessary to inform market participant behavior.

Please provide any additional feedback your organization has regarding the balanced schedules by LSEs issue.

They should submit two schedules, one financial (how much they expect from spot market and their expected total load for PJM operations.

We do not recommend pursuing this issue.

As mentioned in previous sections, we need more clarity to be able to give an informed opinion on this issue.

Balancing LSE is a priority and is the crux of the current shortcomings of the base residual auction. PJM and stakeholders should examine how to provide incentives for LSEs to bilaterally contract resources to meet their load growth while respecting state regulatory structures.

The markets have been successful but now politics have become too contentious and interventions frequent. The region needs PJM and the states to come to agreement on LSE responsibilities in order to prevent unreasonable leaning that results in unjust and unreasonable prices and reliability risk for others/all. FERC has authority to place reasonable requirements on LSEs that utilize the organized wholesale competitive markets. It can approve requirements targeted to LSEs serving large loads. Some are the size of large cities integrating into the PJM region. We do not support the idea of allowing large load integration as non-capacity backed loads. This speed to enter creates price and reliability risk to other loads. There are contractual and logistical challenges with any idea of curtailing such loads pre-emergency, and grave impacts if the implementation logistics aren't handled perfectly. Also, what is the metric for PJM to make the decision to call for their disconnection. And there can be impacts to nearby generators when large loads drop and return after such curtailment.

see above.

While we support more hedging by load, we do not support PJM mandating a certain level of hedging, and the issue is better left to individual load serving entities and state retail regulators.

Exploration of market-based mechanisms to incentivize balanced schedules by LSEs is welcome. Strict requirements are unlikely to be supported, but market design that incentivizes bilateral transactions may get a similar outcome. Eg., given retail choice and customer switching in many PJM states, such obligations are unlikely productive for 3 year forward auctions. A better understanding for stakeholders of the breadth of such a discussion might entail would provide for a more fulsome response and feedback.

This topic appears to be having growing interest. We believe there should be some sort of balance so entities can't rely fully on the capacity market, but not sure how that works with some states that are fully deregulated.

Requiring LSEs to use more bilateral contracts to meet their reliability requirements is not a one-size-fits-all solution and may run afoul of state law default service procurement mandates in restructured states. Even if it doesn't run afoul of state law procurement standards, more bilateral contracts may have the unintended consequence of having customers pay more than they otherwise would under other procurement schemes. All options to improve resource adequacy should be considered but since changes to state law would be necessary for some LSEs to comply, other issues before PJM should be prioritized over this one. Procurement structure/requirements in states that have restructured may be contrary to procuring more capacity through bilateral contracts. In some restructured states, procurement requirements include a least cost over time standard that is likely not to be met if greater capacity procurement is attained through bilateral agreements. Customer costs over time, contract length and political pressure if contract prices exceed clearing prices should all be accounted for when considering this issue.

It is time to shrink and simplify RPM; not make it broader and more complex. We must focus less on supply and more on the demand side of resource adequacy challenges to avoid the need for enhanced reliability backstop mechanisms and out-of-market actions. The meaningful development of a more granular resource adequacy construct should not begin until after a period of focus on demand-side issues, while complicated supply-side reforms (Marginal ELCC, must-offer, Price collars, Quad Review, RRI) stabilize for market participants. It is incorrect to claim that a seasonal concept was part of the original RPM design, even in a theoretical way (in 2006, PJM did not even integrate the many other areas, nor was intermittent supply by renewable resources a challenge that needed to be addressed). In 2006, however, self-supply and residual market rules were an integral and necessary design component in the original RPM design for various participant types, including munis, coops, and LSEs, operating in different regulatory areas with diverse load characteristics. After the settlement that created RPM, market rules for LSEs to self-supply or load flexibility rules (ie, Peak Shaving, PRD, BTMG) did not evolve with the new and current realities of technology advancement to address the intermittent nature of supply and the dynamic nature of demand. This makes it increasingly problematic for customers seeking to hedge volatile capacity costs over time. As the supply-demand balance tightens with potential pending resource adequacy shortages, the time is now to develop a more affordable and secure approach to resource adequacy for the entities that have the obligation to serve load affordably, without increasing the complexity of an already complicated construct where all elements of the construct are

administered centrally by PJM. Customers' Willingness to Pay is not infinite, and a lack of robust hedging mechanisms will create future challenges if load continues to lean on RPM to the point of shortages without penalties or incentives to hedge their obligations. If there is an effort to make reforms that transition RPM to a residual construct where participation is less mandatory, it will be critical to first define what is considered balanced schedules by LSEs to determine how to create a paradigm that provides more optionality and flexibility for LSEs to meet their full load obligations. To improve LSE hedging mechanisms, the primary reforms that PJM should consider: Move RPM to a true residual capacity construct, reflecting the original intent of the Base Residual Auction, as opposed to the mandatory design that PJM has used since 2007. MISO has successfully used this approach for many years. The current all-or-nothing approach is simply inadequate. It doesn't insulate load from price volatility, and it doesn't appropriately encourage long-term investments in capacity resources. This must change. If an LSE procures part of its capacity obligation through its own generation, part through bilateral contracts with a third party, and then the residual obligation through the auction process, this should be acceptable. To foster this approach, PJM should facilitate bilateral agreements that allow LSEs to contract for capacity from new and existing resources for periods substantially exceeding the one-year term of commitments obtained through capacity auctions. This would enable LSEs to insulate themselves from potential large swings in capacity prices. MISO has also used this approach for many years. There are already existing market rule paradigms in RPM, load forecasting practices, and planning processes that can be modified in a more timely and less complicated manner in time for the 28/29 BRA. PJM must materially evaluate its role in the load forecasting process as compared to the processes used by other RTOS (MISO and NE-ISO). For effective residual market reforms to be successful, PJM and stakeholders must also address issues with the current load forecasting paradigm as large load additions continue to rise: Planning Processes for Large Load Additions - Planning queue for large load additions where data centers that can bring generation with their load are studied together and receive expedited treatment Consideration must be given to how this load will participate in the Capacity & Energy Markets (BTM configurations, co-location, peak shaving, DR). These types of reforms can and should be made to complement the demand curve stabilization efforts in the Quad review and should follow right afterwards.

We could support this work effort depending on how it is defined. It is important that competitive forces remain healthy in the marketplace and that this effort isn't a cloak for rate-basing generation.

Reforms should not be contemplated that would raise prices for customers through participation in the BRA and IAs. Additionally, customers served by EDCs that are LSEs should not be subject to higher prices than other customers in PJM simply because they reside in a net import state. However, there should be more flexibility for LSEs to contract with resources or build their own generation.

Current self-supply options in RPM do not appear to have provided sufficient incentive to drive long term bilateral activity. Consideration of how enhancements to the current self-supply construct could help stabilize RPM is in order.

We are supportive of discussions regarding how to better match load and supply and manage market volatility, including LSE balanced schedules, provided that any mechanism is voluntary for both load and supply and that solutions support rather than undercut the broader capacity market.

In order for stakeholders to engage on this, PJM needs to flesh this concept out more fully.
We encourage PJM to educate members on this topic before pursuing modifications to move toward a more residual capacity auction. Given that PJM has multiple states within its footprint that run their own auctions in conjunction with the BRA, it is important that PJM and stakeholders have an understanding of how these existing market products would interact with a shift to a residual market. Further, PJM should examine any proposal related to balanced schedules by LSEs in the context of existing state regulation and legislation and whether or not there would need to be reforms at the state level to accommodate a residual market.
We are interested in allowing states and their utilities more flexibility in how resource adequacy is obtained. Ideas, such as a Partial FRR, should be explored and implemented. States and their utilities should be able to procure resources outside of the capacity market without legal risk, the need to go full FRR, or the need to redesign a state's decision to preserve a restructured energy market. To be clear, restructured states are not prepared to move to a full balanced schedules approach like seen in CAISO. There is benefit, however, in exploring how a system that partially allows states to obtain resource adequacy outside of the capacity market can work.
No additional feedback. We have not considered the issue deeply because we do not see this being a solution to any of PJM's pressing resource adequacy issues.
It is unclear what issue this references. It would be helpful if PJM issues a poll to provide a brief description of the "issue" or links to relevant materials.
We do not believe this issue is of top priority. PJM's BRA markets have worked well for over a decade and provided more than adequate resource adequacy given reasonable levels of positive and negative growth. Only recently is this model being challenged but only because of extreme level of data center load additions. It is more important to deal directly with the data center related problems than redesign the entire market.
This is not a priority for us.
See response to Part 1 question.
Represents a significant departure from status quo. May not be compatible with restructured states.

Please provide any additional feedback your organization has regarding the reforms to further enable demand response and load flexibility issue

Unlikely to produce stakeholder endorsed reform in the next couple of years. Need to refine process for voluntary conservation.

PJM has been moving backwards on this issue by eliminating energy efficiency from the capacity market altogether. Enabling meaningful demand response and load flexibility is essential given the resource adequacy issues that PJM regularly cites.

We would like to see PJM assess whether its current Demand Response constructs need reform to better enable data centers and other large loads to participate. We see DR as a valuable and cost effective tool, particularly with such large loads that often come online with implications to reliability and cost. As presented at the May 9th Large Load Additions Workshop, PJM laid out several opportunities that could be explored to ease the tension between large load additions and associated reliability and cost concerns. We think these are worth exploring and are particularly critical to areas experiencing dramatic spot load growth.

No comments.

Demand response and load flexibility programs within PJM are crucial for managing grid reliability and optimizing energy use, especially during periods of high demand. Particularly as we enter into a period likely to be characterized by large load additions and contracting supply, we are interested in continuing efforts to further enable DR and facilitate load flexibility.

Further examine DR or DR like products to offer to large load customers, including non-capacity back load. Also consider examining how large customers will back up generation should be used in determining the IRM and FPR. These customers may not require the same level of reserves traditional customers need to maintain the same level reliability.

These are worthy efforts but not sure what the idea is from a capacity perspective. And not sure whether effort to create such products is worth the squeeze when the greater need is to get MW connected to the system to serve the load that is growing rapidly. If this is data center shifting load to another data center, then we'd need to figure out if it is in PJM or another region and what the status of those other regions are.

see above.

We are in support of exploring further enhancements to DR and load flexibility. Given the fast pace in which these new loads are interconnecting and the time for resource development, further enhancements to DR and load flexibility provide an opportunity to bridge the potential gap to support reliability.

There has been significant attention to the supply side of the market, but less to the load side. We need every tool in the toolbox as we navigate the energy transition and load growth, and DR and load flexibility are underutilized tools.

If DR is going to be considered, we think it should be looked at holistically. We believe there is value in having DR, but it does not provide the same benefits as other capacity resources. If there is an expectation that DR could be expanded, we should also consider the requirements for real-time telemetry for operations, fuel cost policies, and must offer requirements.

We encourage PJM to consider whether and to what extent some of this can/will be addressed through Order 2222 implementation process (DR for aggregations). Specific to large load additions, this topic should be left to the state jurisdictional retail interconnection process. Determination of how flexible a large load customer's load profile is would be more appropriately evaluated under existing retail load interconnection processes. Measurement and verification for DR resources participating in the capacity and/or energy markets is a key component to ensuring that resources can provide the service they are being paid for. Customers should not pay capacity costs for DR absent a clear and accurate way to verify MW will be dropped when called upon on the operating day. Customer willingness to participate in DR during long-duration weather events and impact to market payments they receive should also be considered. Requiring flexibility for loads that do not have this inherent characteristic based on operating profile should not be required or encouraged to participate in DR as a condition of interconnection. We support and will continue to collaborate with PJM to address operational issues arising from retail large load interconnections but do not support wholesale-based restrictions on the interconnection of these loads.

PJM has stated to Congress and FERC that improvements in this area was one of it's three top priorities (along with keeping resources on line and adding new resources.) We agree! Furthermore, we struggle to see how this topic fits in with the other items mentioned in this poll. As ensuring reliability in the region becomes more of a concern, all options should be evaluated. PJM has failed to make any substantive progress on this half of the supply/demand equation over the past decade. The lack of progress in this area is another sign that PJM's current construct is antiquated and is no longer a leader in innovation.

It is time to begin to shrink and simplify RPM; not make it broader and more complex. It is time to focus less on supply and more on the demand side of resource adequacy challenges to avoid the need for enhanced reliability backstop mechanisms. Reforms should be focused solely on the demand side (not supply) options in RPM (PRD, Peak shaving, BTMG)

This issue becomes increasingly important with large load additions.

Any reforms should provide flexibility for different large load configurations and not preclude any configuration.

No comment.

Any reforms to enhance the opportunities for demand response and load flexibility must include strict measurement, verification, and performance penalties, especially if these resources are going to be considered substitutes for traditional generation. PJM's ability to reliability plan for resource adequacy and to meet any real-time demands necessitates that demand response and load-based resources have the same accreditation, testing, and performance expectations as traditional generation.

As ensuring reliability in the region becomes more of a concern, all options should be evaluated - substantive progress on this half of the supply/demand equation has not been made over the past decade.

The large load additions is the most pressing issue facing PJM. Multiple studies have shown that even a modest amount of load flexibility in these facilities, such as demand response participation, can relieve substantial stress on the grid and the ratepayer burden. Implementing reforms must be prioritized, whether that is by tying the discussion to load addition proceedings more generally or by including it in the Quad Review discussion.

This may be a promising short-term initiative, especially when considering the potentially significant impact of small curtailments of large load in the footprint capacity picture. If PJM hasn't already, we strongly encourage PJM to review the large load curtailment paper published by Duke University in February of this year. This could be an opportunity for low hanging fruit to improve PJM's resource adequacy balance sheet.

It is unclear what issue this references. It would be helpful if PJM issues a poll to provide a brief description of the "issue" or links to relevant materials. Notwithstanding the foregoing, DR and load flexibility are meritorious interests, but not necessarily priorities. DR rules seem well-developed.

We agree that any barriers to effective demand response should be removed to the extent practicable and cost effective to do so, but again believe that resources are better focused on dealing with large load additions.

As the fleet transitions and load grows, DR will be an important part of reliability. We encourage PJM to create good methodology to price, accredit, test, deploy, and promote DR. This is a crucial issue to address.

There is a major need for an aggressive refounding of DR and load flexibility to address current problems in DR administration and compensation and to enable the standing up of cost-effective demand side resources at scale to address PJM's capacity market challenges.

Please provide any additional feedback your organization has regarding the other component issues

ELCC fails to consider any unit repairs or reforms or act of god failures in utilizing GADS data. It assumes the worst and unnecessarily reduces total available MW. It also means units cannot accurately quantify the future output.

1. Want to further reiterate that the capital costs seem understated for the CONE resource(s). 2. Sub annual auction construct should not be rushed through.

Establish LSE generation requirements and strengthen FRR alternative rules to make it a viable option to address rapid load growth.

ELCC gas units should make improvements to the modeling so not overly conservative/using false precision in the weather correlated outage assumptions, not overly accounting for events by assuming individual days of multi-day storms are equally likely to happen as individual 1 day events, winter CIRs, allow accreditation improvements when capital investments or other significant change/improvement is implemented which ties back to a reason for a past, influential outage.

see above.
We still believe further enhancements to ELCC need to be contemplated and worked on. Continued uncertainty in ELCC outcomes will hinder further bilateral transactions (both in tenor and volume); DR still has excess winter capability that is not captured in the current model.
See prior descriptions/responses re: other components.
PJM has dragged its feet for years on the sub-annual market design and at least a decade on load flexibility and demand response advancements. These items along with addressing large loads in the region need to be the top priorities.
Planning Processes for Large Load Additions - Planning queue for large load additions where data centers that can bring generation with their load are studied together and receive expedited treatment. Consideration must be given to how this load will participate in the Capacity & Energy Markets (BTM configurations, co-location, peak shaving, DR)
The scope of the Quadrennial Review does not extend to addressing the penalty rate mechanism. PJM should initiate a parallel, expedited process - such as a CBIR-lite or quick-fix approach - targeted for implementation within the 2028/2029 planning timeframe.
Further ELCC reforms must be made to enhance transparency and encourage investment. Specifically, reforms should focus on: (i) enabling generation owners to be able to predict ELCC ratings over time class ratings as well as unit specific calculations; (ii) enabling generation owners to forecast the impact of extreme weather events on ELCC ratings; (iii) improving the ELCC rating of a unit that invests in improvements to unit performance. Whether and which additional reforms to the capacity market are pursued should be informed by the ELCC reforms.
The PJM ELCC model does not appear to have been thoroughly analyzed by an independent subject matter expert. Given the voluminous number of assumptions made by PJM an independent analysis of the model with constructive criticism is imperative.
While there are opportunities for significant improvement in the large load addition forecast methodology and increased transparency, any stakeholder discussion around large load integration should include the following principles. First, all load should be served and should not face discriminatory treatment based on the size of the load alone. Second, PJM and stakeholders should not limit the ability for load and supply to develop arrangements that best meet their individual needs.
None
We support efforts to harmonize TO and PJM load projections to ensure more accurate forecasts.
The current ELCC accreditations likely do not accurately reflect winter performance risk for gas resources. PJM's conservative operations and industry improvement since WSE and the PV suggest gas is being undervalued. Ratepayers may be paying for more capacity than is needed

and further gas builds are less economical as well. This item needs review and states should have a direct say in evaluating the proper risk aversion level in assessing these units.

By the time any of the above reforms can reasonably be filed to FERC, generation entry and exit decisions for the next 5-7 years will have already been locked down. First and foremost, the priority must be expeditiously and relentlessly focusing on making our existing paradigms work. ELCC must be stable, straight-forward, and produce common sense results that are easy to explain to capital partners without extensive experience in PJM. Responsible investors only invest in what they can understand. Please continue your work through the ELCCSTF to study and simplify the construct. Without a stable and investable ELCC, the other listed initiatives will struggle to succeed. Relative priorities of high-level market design initiatives, like the ones listed above, should be determined in high-level market design discussions, like the proposed Strategy Refresh. Above all else, please avoid dozens of scattered issue charges with such limited scope that they cannot consider how they might potentially impact each other.

See responses to Question 1. Again, focus really needs to be on more efficient handling of large load additions. The impact to low and middle income customers, and businesses will be extreme given current forecasts. The anticipated political and economic consequences are not acceptable.

The LSE "load balanced schedule" issue is complex (see prior response) and more complicated in restructured states. PJM should consider extensive education sessions from experts to address these issues.

Regarding the aforementioned topics, please provide information on any topics your organization believes need to be, or would benefit from, being addressed simultaneously within a broader process focusing on the capacity market.

It's too late we will have shortages.

Moving to a sub-annual construct should be included in any conversation related to the capacity market.

No Comment

The Members Committee sent a clear message to the PJM Board of Managers in May that the BOM should set the direction of PJM's capacity market and courageously pursue it. The BOM should not capitulate to political pressure but adhere to transparent stakeholder processes.

Prompt auction in combination w/ sub-annual

Strengthen the FRR rules. Explore removing caps for selling excess generation into the RPM. Remove threshold quantity. Allow plan initial plan and demonstration of requirements closer to the DY. Reduce 5-year commitment.
ELCC accreditation for thermal resources, especially gas resources; Balanced schedules by LSEs; Other: imposing obligations on LSEs to have (some measure of) resources dedicated to serve the large loads before placing the load into the forecast impacting RPM and RTEP.
see above.
For any process which considers a prompt and/or seasonal market, and in addition to the direct design elements of such changes, further consideration of the following topics will be required: Outage scheduling; deactivation timelines; market power mitigation; capacity performance credits/charges; financial security and credit; ELCC application and more.
A well-functioning capacity market is critical to ensuring high levels of reliability at reasonable cost to customers. A more holistic approach to capacity market reforms (and how they impact/connect with other PJM operational or administrative responsibilities) that ensures that the left hand knows what the right hand is doing would go a long way to produce comprehensive, durable solutions to meet the moment of today and ensure a reliable grid for tomorrow.
To signal clarity of direction and to move as efficiently as possible, a holistic design would be ideal. It should address both demand and supply challenges with a phased implementation approach. Some of the aforementioned topics can be developed simultaneously, if phased in the following manner: Immediate Efforts (for 28/29 BRA): A) LSE Balanced Schedules, B) LLA Process Improvement Changes; Near Term Efforts (for 29/30 BRA): A) Reforms to further enable demand response and load flexibility, B) Evaluation of Prompt Auction; Long Term Efforts (for 30/31 BRA: A) Sub-Annual Auctions, B) Prompt Auction Schedule, C) Performance expectations and performance penalties (Capacity Performance).
With penalty rates tied to Net CONE, there's a risk that these rates could swing significantly - either very high or very low - depending on the EAS offset. While PJM's proposal helps stabilize the VRR curve, the scope of the Quadrennial Review prevents it from addressing the penalty rate issue directly. PJM should consider pursuing a fast-track solution - either through a CBIR-lite or a quick-fix - aligned with the 2028/2029 timeframe.
Further ELCC reforms must be made to enhance transparency and encourage investment. Specifically, reforms should focus on: (i) enabling generation owners to be able to predict ELCC ratings over time class ratings as well as unit specific calculations; (ii) enabling generation owners

to forecast the impact of extreme weather events on ELCC ratings; (iii) improving the ELCC rating of a unit that invests in improvements to unit performance. Whether and which additional reforms to the capacity market are pursued should be informed by the ELCC reforms.

PAI Penalties maximums are in need of further consideration especially with the current must offer requirements for variable resources. While recognizing the improvements/changes PJM made after Winter Storm Elliott to the PAI process further refinement to the magnitude of risk exposures are warranted.

We believe that the ability to use an FRR for long-term commitments (10 years or greater), not subjected to price separation, is an important cause to be taken up simultaneously within a broader process focusing on the capacity market. This will permit for planning far into the future without the current unnecessary risks of PJM's policy.

There is room for significant improvements to market mitigation and the market seller offer cap. Such reforms will be particularly important as PJM and stakeholders consider moving to a sub-annual market, with market participants facing substantially different risk profiles depending on the season. PJM should continue to move as expeditiously as possible on reserve market reforms with the goal of having some reforms in place by the winter 2026-27. Reserve market changes can enhance resource adequacy by providing real-time performance incentives and ensuring that resources are adequately compensated for the actions they take to maintain reliability without reliance on out-of-market payments.

None

Balanced schedules and the sub-annual auction concern broader capacity market review, but they should still be moved at an appropriate schedule. The process should start now to allow stakeholders sufficient time to move the item to completion within the next 1-3 years.

PJM cannot afford to wait for a new CEO before beginning Strategy Refresh exercises. A successful refresh will need plenty of opportunity for stakeholder feedback. If PJM waits for a new CEO before beginning a fact-finding, common-ground stakeholder discussion initiative, PJM will not have a complete strategy refresh until mid-late 2026. This is far too late. We believe that any priorities for market design absolutely must be informed by a high-level market strategy. For this reason, we strongly support a PJM strategy refresh which establishes a set of principles to guide PJM's decision-making across siloes and facilitate prioritization of the many initiatives needed to meet the moment. Getting stakeholder buy-in will require time and opportunity for cross-sector discussion. To move at the pace needed, the new CEO will need a report on the state of resource adequacy, as well as the landscape of stakeholder sentiment, on day one. This report need not be a proposal, but rather a launchpad for strategy discussions a complete picture of needs, gaps, and stakeholder priorities. We recommend that PJM amend its proposed strategy refresh approach rather than gathering input behind the scenes, please consider an approach similar to MISO's Reliability Attributes process. In

our experience, the most successful aspects could be borrowed and amended as such: (1) schedule full-day special MRCs at least monthly, (2) facilitate live discussions in a manner similar to this survey, encouraging stakeholders to bring presentations, comments, and feedback on thematic topics, (3) regular solicitation of written comments and/or surveys after meetings to inform PJM's report development, and (4) opportunities for stakeholders to provide written feedback on various iterations of a whitepaper. As frequently noted, our current resource adequacy challenge needs an all-hands-on-deck approach. PJM stakeholders will greatly benefit from a common set of principles which set expectations for how reforms will be prioritized.

Establishing accreditation methods that reasonably reflect unit availability is the most critical need. Market designs - from centralized procurement auctions to bilateral structures - all require PJM to fill this important, independent role. Accreditation should be relatively simple, understandable, and transparent. The current ELCC paradigm does not meet these tests, but does provide useful planning level information about aggregate outage risk.

PJM will need to incrementally and carefully address likely reserve market requirements and products to manage increases in intermittent resources like wind and solar.

Large load additions needs attention. These large loads may disrupt the capacity market and impact reliability.

There is a pressing need to address (i) the large load additions, in forecasting, market entry and participation in the capacity market (including the requirement that they bring their own generation (BYOG); (ii) DR and load flexibility; and (iii) sub-annual market design. PJM needs to do in advance market impact studies of proposed major market reforms.

Repeated capacity market delays have weakened the price signals necessary to ensure the efficient entry and exit of resources and have undermined confidence in PJM administered markets. PJM must ensure that future capacity auctions are not delayed.

Please provide any additional feedback your organization has for PJM on timing and sequencing of these or other stakeholder issues.

Who cares what the stakeholders want. What does it take to have a reliable system!

PJM's ability to manage a complex stakeholder docket is impaired by the structure of the stakeholder process. Lengthy meetings with no recordings, transcripts, or helpful minutes are not the only option, and instead are a meaningful barrier to public participation, transparency,

accountability, and efficiency. Similarly, having the only opportunities for input be stakeholder meetings is inefficient and a barrier to participation; PJM should welcome written comments during all stakeholder processes.

PJM is short UCAP for the next several BRAs following the RPM Collar years, even with the RRI, and may even be short UCAP (short to the RR) in the RPM Collar years depending how much DR shows up as a result of the Collar's floor. All the issues that bear on this simple fact - that PJM is short UCAP - deserve to be on the table. For example, I count 47,016 MW ICAP, load growth and just about 39,000 MW of UCAP load growth at a flat 91.7% FPR (over time, the FPR should go up as the ComEd CEJA units retire and the Fleet-wide UCAP % goes back up, so I will call this 40,000 MW UCAP). But hopefully PJM can see that, finding 40,000 MW of new gen capacity is a real challenge. As such, somehow we have to address the pace/trajectory and perhaps the terms and conditions, if jurisdictionally appropriate, including the other items PJM notes as relevant in this survey, of large load additions, to the best we can.

We see a sub-annual construct as a high priority for sequencing. As described above, this conversation is years overdue as many of PJM's neighboring RTOs have already moved in this direction. We also see conversations around large load additions, including DR, load flexibility, and the 'bring your own generation' concept, as critical to maintaining reliability at least cost. This should also be a high priority for sequencing as working on this challenge now could yield substantial cost savings and ease reliability issues as new load continues to come online. We do not recommend pursuing the 'Prompt Auction' or 'Balanced Schedules by LSEs' issues. To the extent other stakeholders see value in pursuing these topics, we would advocate to place them low on the priority list behind the sub-annual construct, large load topics, and the ongoing ELCC reassessment.

For those items NOT included in the current Quad Review, a new Problem Statement(s) and Issue Charge(s) should be drafted and presented to the stakeholder for their approval. The stakeholder process(es) resulting from the PS/IC should be done in a focused stakeholder process including thorough vetting, modeling, scenario analyses, etc on a schedule that is not set by some artificial deadline.

Identify short term issues to address quickly, such as improvements to ELCC accreditation and prioritization of generation interconnections that further resource adequacy, which can be completed within 6 months. Make the RRI mechanism permanent. Other efforts such as implementation of a sub-annual auction and addressing the balance of LSEs, will require more time, (e.g. minimum of 1 year) to develop viable and effective solutions.

It is imperative that ELCC for thermal resources and LSE obligations for large loads be addressed ASAP before more auctions are conducted and the financial and reliability impacts are locked.

Bringing loads to heel is critical need, as is advocating to all stakeholders -- particularly relevant state-level authorities -- to undertake the efforts necessary to do their parts, including siting, construction and interconnection of new generation resources that can materially impact the identified (and growing) UCAP deficit.

PJM needs to let the current construct's changes bake for a while and allow several auctions to occur. Hold off starting stakeholder processes on fundamental changes. If PJM does proceed on these many fundamental changes it should be done thoughtfully and put in place years from now. This lengthy process should be holistic.

Regarding timing, many of the design options named in this survey should be considered fundamental market changes and require well thought out process for education, design, and implementation. It is our strong view that such activities will take more than 6 weeks (i.e., remaining Quadrennial Review timeline) but need not take 2-3 years. If these other issues are undertaken, PJM and stakeholders should seek out the "goldilocks" timeline, likely around 18 months or so.

Addressing large loads and a sub-annual market need to be top priorities. DR and load flexibility go well with large load management.

We support timing and sequencing of stakeholder issues that will result in comprehensive, durable market constructs that provide reliability at reasonable cost to customers.

Again, a holistic design would be ideal that addresses both demand and supply challenges with a phased implementation approach: 1A) LSE Balanced Schedules a. Start immediately in conjunction w/Quad Review Activity b. Target implementation for 28/29 BRA scheduled for June 2026; 1B) LLA Process Improvement Changes a. EXPAND effort to also address Planning issues for a LLA Queue for generation b. Target implementation for 28/29 BRA scheduled for June 2026; 2A) Reforms to further enable demand response and load flexibility a. Focused solely on demand side (not supply) options in RPM (PRD, Peak shaving, BTMG) b. Target implementation for 29/30 BRA scheduled for December 2026; 2B) Prompt Auction a. EVALUATE the challenges with going to a less than 3-year auction window (while we are still in an accelerated auction timeline). b. Target Results of Study for 29/30 BRA scheduled for December 2026; 3) Sub-annual Construct a. Begin meaningful development of a more granular resource adequacy construct after a period of focus on demand side issues, while complicated supply side reforms (ELCC, must offer, Price collars, Quad Review, RRI) stabilize for market participants. Include performance expectations and penalties for performance. b. In addition to demand-based reforms, deferring a sub-annual construct to later auctions will have the benefit of E&AS reforms that are already underway in the RCSTF, which should have beneficial outcomes for energy & reserve pricing and real-time operations. c. This will still need to be a very long development process so it can begin in Q1 2026. d. Target implementation for 30/31 BRA is scheduled for May 2027, when the action schedule returns to a 3-year auction timeline (if still viable and necessary). Stakeholders considered a similar timeline during the final CIFP RA Stage 4. The holistic development efforts for RA reform need to move quickly, but should not be done as aggressively as some of the recent efforts, like the CIFP-RA, that resulted in a Marginal ELCC methodology that wasn't ready for prime time. It should be noted that since its implementation, PJM has needed to submit seven FERC filings as corrective measures, and the auction schedule has had to be modified. The rule churn and instability have become unsustainable.

With the quadrennial review coming up for approval by the parent committees this month how does PJM intend to effectively incorporate the feedback it is receiving into the discussion and solutions?

The scope of the Quadrennial Review does not extend to addressing the penalty rate mechanism. PJM should initiate a parallel, expedited process - such as a CBIR-lite or quick-fix approach - targeted for implementation within the 2028/29029 planning timeframe.

PJM should consider whether the capacity market is meeting its intended purpose and out-of-the-box solutions to address resource adequacy. The capacity market was designed at a time when there was a generation surplus and relatively flat demand and it isn't set up for this type of situation so we need fundamental changes to address this situation. PJM should take a broader look at its markets, and not limit itself to the capacity market as it has done, to see how to best address resource adequacy while considering affordability. For example, PJM should evaluate how to better avoid scarcity pricing and, when it does occur, whether scarcity pricing is appropriately encouraging a reduction in demand and generators to produce more power. PJM should also continue to pursue reforms to its reserves markets and should focus on reducing the use of out-of-market solutions such as uplift to maintain reliability.

PJM has recently indicated an increased willingness to listen to stakeholder feedback regarding RPM and we applaud that change in direction. The constant churn in rules and requirements this decade has eroded stakeholder confidence in PJM's ability to properly manage this complex issue. A measured, properly quantified approach to the upcoming revisions to the market is essential to restore confidence in the ability of PJM to manage the construct. Continued rush to judgement approaches could cause irreparable harm.

While the challenges facing the capacity market today are multifaceted, we urge PJM to prioritize the restoration of the 3-year lead time of the BRA to more effectively promote planning, price signals and predictability that comes with fundamentally-sound rules within the PJM footprint.

PJM should prioritize completing the suite of reserve market reforms as quickly as practicable with the goal of having some reforms in place by the winter 2026-27. This work is already underway and will have meaningful reliability benefits. Assuming the relevant issue charge is approved, PJM should then begin work on a sub-annual market construct. A sub-annual construct will enhance ongoing resource accreditation reforms and provide additional visibility into load needs. As part of any sub-annual market reform, enhancements should be made to both the ELCC accreditation methodology and the market seller offer cap to reflect changes in seasonal availability and risk.

Based on the prioritization stakeholders have placed on the issues mentioned above, as well as the issue of large load additions, PJM should incorporate these matters into the stakeholder process accordingly.

These are important issues that need to be addressed but not at the forfeit of returning to a prompt auction schedule.

We will happily advocate for prioritization of issues which impact us most. As will every other stakeholder, we would expect. However, we cannot imagine this will yield the popular and straightforward reforms that PJM is likely hoping to find. Instead, we would encourage PJM to clearly bifurcate issues - (1) tweaks to improve existing mechanisms, and (2) high-level market design reforms. Please use the latter to inform strategy refresh discussions. Everyone needs to be bought in on, or at least at peace with, PJM's mission and strategy. The conversations needed to find

that common ground must begin today. And this survey is a fantastic first step. Thank you for seeking this high-level feedback and we hope this dialogue is the first of many.

PJM and stakeholders should devote adequate time, in years, to an examination of the capacity market structure as a whole, rather than considering band-aids, bolt-ons, or issues intended to drive prices in a preferred direction. We recommend employing at least two independent consultants to offer holistic market design options that could serve as starting points for such consideration with a target filing date at least in 2028. Market stability is required. PJM should not be developing modifications that are intended simply to obfuscate prices resulting from prevailing supply and demand fundamentals.

Top 3 issues, in order, are large load additions, ELCC, and sub-annual capacity markets. With that said, if the large load additions are not addressed effectively, and quickly, all other issues will be insufficient. Uncontrolled and massive data center load growth is the core problem. ELCC, sub-annual capacity markets, and reserve reforms are all fine tuning necessary to address the changing resource mix.

Large load addition issues and the sub-annual construct should take priority.

From prior response: There is a pressing need to address (i) the large load additions, in forecasting, market entry and participation in the capacity market; (ii) DR and load flexibility; and (iii) sub-annual market design. PJM needs to do in advance market impact studies of proposed major market reforms.

PJM's capacity construct has been the subject of significant modification, negotiation, and litigation for nearly a decade. Perhaps it is time to take a step back, set predictable and stable market rules, and allow the market to function without continuous reactionary interference. Any work on a sub-annual market design should proceed over a reasonable, established, and deliberate time frame to minimize further disruption.