

**VIA ELECTRONIC DELIVERY**

September 13, 2023

The PJM Board of Managers  
c/o Mr. Mark Takahashi, Chair, PJM Board of Managers &  
Mr. Manu Asthana, PJM President and CEO  
PJM Interconnection, L.L.C.  
2750 Monroe Boulevard  
Audubon, Pennsylvania 19403

**RE: Next Steps for the Critical Issue Fast Path ("CIFP") Capacity Market Reforms**

Dear Mr. Takahashi and members of the Board:

The Reliability Pricing Model ("RPM") uses carefully crafted incentives to ensure investment in resources that provide local and regional resource adequacy. This symbiotic relationship means that the capacity market must be investable to be reliable. PJM cannot satisfy one condition without the other. A market that is not investable will not be reliable over the medium and long term.

We commend the Board's leadership in instituting the CIFP process to develop capacity market reforms to address the resource adequacy challenges that PJM faces. The region's resource mix and system needs are changing rapidly, and the need to respond quickly is real. Like many, we were optimistic that the CIFP would produce a comprehensive and investable suite of RPM reforms. However, redesigning the nation's largest centralized resource adequacy construct proved more challenging than the CIFP's timeline allowed. While CIFP produced several intriguing proposals that could be investable and reliable with the benefit of more analysis and refinement, only a few are ready to implement today.

Considering these limitations, the Board should direct staff to make a more surgical filing with the Federal Energy Regulatory Commission ("FERC") this October that adopts the following reasonably well-understood enhancements to PJM's resource adequacy construct:

- 1) Adopt an Expected Unserved Energy ("EUE") reliability metric;
- 2) Move to more gradual hourly modeling in the RTO and LDA reserve requirement studies;

- 3) Use extended weather history dating back to 1993 and explicitly model load patterns as a function of weather in resource adequacy studies;
- 4) Implement mandatory summer and winter seasonal capacity testing requirements for capacity resources;
- 5) Mandate firm fuel contract reporting for thermal generators to gather the necessary data to account for fuel availability in thermal generator capacity accreditation appropriately;
- 6) Adopt non-performance penalty rates and stop-loss limits that are a function of capacity revenues and not the Net Cost of New Entry until and unless PJM adopts a compensatory Market Seller Offer Cap (“MSOC”) that allows market prices to reflect the full spectrum of risks and other reasonable commercial considerations that capacity sellers face.

These features of PJM staff’s seasonal and annual proposals respond directly to the Board’s core objectives for the CFP process. They enhance reliability with less risk of adverse outcomes than other less well-understood components of PJM staff’s proposals that require far more vetting and refinement to ensure they are investable and reliable.

Once they are in place, the Board should also direct PJM staff and stakeholders to initiate a supplemental stakeholder process to develop solutions that anchors on the fundamental principles articulated here as expeditiously as possible. These universal features of any well-functioning market will improve all the proposals the Board is considering today.

**1. Clearly define the capacity product so that all market participants easily understand.**

All market participants – buyers and sellers alike must – have sufficient information to evaluate their positions against a transparent, understandable definition of the product they intend to transact. None of the current proposals defines the capacity product, its opportunities, and risks in enough granularity to allow parties to evaluate and manage their positions adequately.

**2. Factors determinative to market outcomes like capacity resource accreditation and capacity procurement targets must be transparent and replicable.**

These and other key drivers for market outcomes are either unknown or incomplete in the proposals the Board is considering. Market participants must be able to clearly understand how changes to assumptions that impact these variables impact their positions, whether positive or negative. They

must be able to replicate the sponsors' results and ensure that the market can confidently evaluate these changes and respond appropriately. Any proposal that lacks a transparent and replicable approach for assessing these determinative features is not ready for implementation.

**3. Market participants must be confident that a new capacity model will function as intended when PJM implements it.**

Investors must be able to confidently evaluate how any capacity model responds to different assumptions to understand how it will function in the future. This process begins by ensuring external parties can replicate the results that proposal sponsors like PJM staff and others produce. Market participants are in the best position to absorb credible analysis and calibrate their investment decisions accordingly. Markets respond most negatively to uncertainty or inadequate information to take an informed view of how the market functions and will discount proposals that do not meet these criteria. The Board should not adopt any construct that has not been adequately tested or includes methodologies that are not transparent to market participants.

**4. The market design must provide clear visibility into the revenue opportunities and risks.**

Investors can underwrite business cases with substantial risk so long as the market provides a clear line of sight to the capacity market's risk and revenue opportunities. For example, PJM's annual and seasonal proposals include an MSOC construct that only reflects the risk of non-performance penalties in sell offers regardless of a market participant's energy and ancillary service margins and not other known or emerging risks. At the same time, they also adopt new triggers that significantly reduce the likelihood that PJM experiences capacity emergencies that could cause non-performance penalties, especially long-duration events like Winter Storm Elliott. These market design features naturally offset, creating doubt that capacity prices will adequately reflect the myriad nuanced and economically rational commercial considerations that sellers face. This uncertainty mutes the market's potential at a time when the Board seeks to bolster investor confidence in RPM.

Non-performance penalties are not the only risks that capacity market sellers face. For example, PJM prospectively penalizes suppliers that fall short on the quantity of capacity sold in a forward auction at the greater of 20% of the supplier's weighted average capacity payment or \$20/MW-day. It also penalizes suppliers retroactively for failing to achieve their ICAP values during a

summer seasonal test. It is, at best, unclear whether or how suppliers could reflect these penalties in their offers.

The proposal also introduces new regulatory risks by augmenting capacity accreditation values for factors like common-mode outages, fuel availability, and state of charge for energy storage resources. We strongly support PJM's efforts to accredit capacity for all resources correctly. However, PJM has only provided indicative values of how these factors could impact capacity accreditation for one delivery year and has yet to analyze how these parameters could change over time.

Both proposals also retain the current Capacity Performance penalty construct based on Net CONE, not market revenues. Net CONE is the annual proxy capacity price that investors would need to realize to return of and on their investment over the reference resources' assumed asset life. It includes necessary factors for investment, like the need to service debt and provide a return on equity, procure firm-fuel transportation, and pay federal and state taxes. None of these features are part of PJM staff's MSOC proposals.

These proposals only allow capacity prices to reflect suppliers' Net Avoidable Cost Rates ("Net ACR") adjusted for proxy or actual estimates of non-performance penalty risk. Therefore, the resulting market prices cannot reflect these proposals' existing or new regulatory risks or the necessary investment factors in Net CONE. A market that does not consistently produce prices at a level that provides a risk-adjusted return on investment in resource adequacy will not be reliable in the long term.

Developing a capacity market design that anchors on these necessary and sufficient features of a bankable model that stimulates investment in resource adequacy that PJM needs. They are not collectively present in any of the proposals the Board is considering. Therefore, we believe that the Board should direct PJM staff to make a filing on the limited issues identified above. We are confident that a durable solution will become apparent with time to evaluate remaining issues against these fundamental principles. Prematurely filing PJM's comprehensive proposal with the Federal Energy Regulatory Commission will only invite more regulatory uncertainty from protracted litigation at a time when investor confidence is at a premium. We appreciate the Board's consideration and welcome the opportunity for additional engagement.

Very truly yours,

Lotus Infrastructure Partners on behalf of  
Garrison Energy Center, LLC; Fairless Energy,  
LLC; Vermillion Power, LLC; and Hazelton  
Generation, LLC

LS Power Development LLC

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