UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

Modernizing Electricity Market Design	)	**Docket No. AD 21-10-000**

POST-TECHNICAL CONFERENCE COMMENTS OF THE PJM POWER PROVIDERS GROUP

The PJM Power Providers Group ("P3")[1] appreciates the opportunity to offer post-technical conference comments pursuant to the Federal Energy Regulatory Commission ("Commission" or "FERC") December 6, 2021, Notice inviting comments following the September 14, 2021, and October 12, 2021 technical conferences to discuss energy and ancillary services markets in the evolving electricity sector.

P3 has been generally supportive of the Commission's efforts in this docket. The Commission has posed appropriate questions and the dialogue stemming from the two technical conferences and the intervening opportunities to comment have been informative. The Commission and stakeholders have received helpful information as it relates to the grid of the future, and the elevation of the discussion has been a useful exercise.

[1] P3 is a non-profit organization that supports the development of properly designed and well-functioning markets in the PJM region. Combined, P3 members own approximately 67,000 megawatts of generation assets, produce enough power to supply over 50 million homes in the PJM region covering 13 states and the District of Columbia. For more information on P3, visit www.p3powergroup.com. The comments contained in this filing represent the position of P3 as an organization, but not necessarily the views of any particular member with respect to any issue.

The Commission, throughout the proceeding, has appropriately recognized the potential role that ancillary services can play as the grid evolves to incorporate more intermittent resources. As this proceeding has revealed, PJM's grid is evolving in a very positive way. Older resources are retiring and newer resources, until recently, have been coming online. These newer resources have been in the form of wind, solar and new, highly efficient natural gas plants that have emissions rates significantly lower than the plants they are replacing. The transition to this more efficient grid has been orderly and to some extent predictable because it was largely driven by market fundamentals. Throughout this transition, consumer prices have gone down, resource adequacy has improved, and NOx, Sox and CO2 emissions have dropped precipitously.

However, the AD 21-10 examination cannot be viewed in a vacuum. While this proceeding has been occurring, a series of decisions and a non-decision from the Commission have severely eroded confidence in PJM's markets – particularly the PJM capacity market which is at an unprecedented level of distress. These decisions outside this proceeding will have a direct impact on the viability of the very resources that the Commissions is seeking to incent in this proceeding - those resources that are necessary to preserve reliability given the evolving resource mix.

Actions by the Commission over the last year have been very disruptive to this market construct and have severely eroded the market fundamentals that support the resources that are going to be needed to preserve reliability as the grid incorporates additional intermittent resources. With the increase of intermittent and limited resources, the grid will need to preserve the economic viability of resources that are running less but needed to preserve reliability when intermittent resources are not available. Energy market revenues will wane for these resources

as they will not be able to compete with zero fuel cost resources and capacity market revenues will be an increasingly important determinant of viability and availability.

These resources will need revenue streams to sustain their viability and unfortunately, unless the Commission is prepared to develop unprecedentedly rich ancillary services products,[2] a capacity market or something akin to a capacity market will be the most cost-effective way to preserve reliability at least cost to consumers. Even though PJM's grid mix is evolving, it is still highly dependent on nuclear, coal and natural gas to meet the demands of the grid. While coal and natural gas units are certainly running less by historical standards and their role in the energy market is likely to decline, they are still running when needed to preserve reliability.[3]

While wind and solar resources comprise most resources in the PJM queue,[4] their current levels of penetration are not sufficient to sustain reliability. Combined with resource adequacy contributions that deteriorate with increasing penetration,[5] it is difficult to avoid the conclusion that traditional resources, while running less frequently, will still be necessary to meet increasing system demands going forward.[6] It is easy to envision a grid in which most days energy demand is largely being met with renewable resources. However, it is the unusual days, in

[2] Historically, EAS revenues have been a very small piece of generator revenues. *See* https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2021/2021q3-som-pjm-sec3.pdf at 184.
[3] In 2020, coal generation in PJM was down 20%, but still produced 20% of the electricity consumed in PJM. Nuclear produced 34% of the MW's and gas produced 39%. Wind and solar were at 3% and .5 % respectively. *See* https://www.pjm.com/-/media/committees-groups/committees/mc/2021/20210329-special/20210329-state-of-the-market-report-for-pjm-2020.ashx at 13.
[4] "Of the 3,169 projects entered from January 2015 through December 2020, 2,380 projects (75.1 percent) were renewable. Of the 969 projects entered in 2020, 768 projects (79.3 percent) were renewable. Renewable projects make up 78.6 percent of all projects in the queue and those projects account for 74.8 percent of the nameplate MW currently active, suspended or under construction in the queue as of December 31, 2020." *See* https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2020/2020-som-pjm-sec12.pdf at 569.
[5] *See* 20210504-overview-of-pjms-reliability-and-renewable-integration-analyses.ashx at 11.
[6] *See* https://www.pjm.com/-/media/library/reports-notices/special-reports/2021/20211215-energy-transition-in-pjm-frameworks-for-analysis.ashx.

which demand is high and renewables are limited by weather, in which reliability is paramount and to which the Commission should be focused.

Capacity markets provide a revenue stream to units that run infrequently yet preserve reliability when they run, and the current state of PJM's capacity markets is anything but stable. PJM has yet to have an auction for the 2023/2024 delivery year which is now 16 months away. The market power rules related to supply side market power are extremely onerous and are putting resource owners in the position of needing to negotiate risks, costs and future prices with PJM and the PJM IMM. Meanwhile, the market power rules on the buy side have effectively been eliminated. Any confidence that the resources needed to preserve reliability for the grid of the future can sustain availability though the capacity market is understandably shattered at the present moment. Unless the Commission is prepared to address this fundamental issue, any ancillary services tweaks will be largely meaningless.

To be clear, P3 supports the exploration of ramping and flexibility products that could further provide incentives for resources with these attributes to provide them at the least cost to consumers. These incentives are enhancements, not replacements, for traditional capacity and energy markets. The Commission should not harbor any illusion that these products are substitutes for the current capacity and energy constructs that provide the revenues streams that will sustain units that are needed for reliability.

The Commission cannot ignore the impact of these recent market damaging actions when evaluating future ancillary services products. A ramping product will not be helpful, if there are not enough units to provide those services because the lack of energy and capacity market revenues have forced units capable of providing these services out of the market. Simply stated, unless the Commission is prepared to break precedent and provide extraordinary levels of

compensation from the ancillary services market, there is unlikely to be sufficient revenues produced from ancillary services to sustain units that are needed to provide those services if energy and capacity revenues continue to be cannibalized.

The Commission should prioritize addressing the current disrepair associated with the PJM capacity construct as it evaluates a rational path forward. P3 is firmly of the view that the currently structured capacity market is not sustainable absent significant regulatory changes. Basic regulatory market mechanisms are missing in PJM right now, and it is incumbent on the Commission to address these significant shortcomings. If the Commission is not prepared to fix the PJM Capacity construct, then it needs to find a suitable replacement that is capable of preserving reliability at the least cost to consumers.

Once the Commission has addressed the reliability mechanism of a market construct, it can then entertain conversations regarding enhancements to the energy and ancillary services markets that can further incent an appropriate resource mix to support the evolving power grid. P3 fully supports an Operating Reserve Demand Curve in PJM and was very disappointed that the Commission scuttled the previous Commission order introducing one in PJM. Procuring additional reserves beyond the current requirements and assigning a non-zero value to them to address the needs of a grid with increasing renewable energy penetration is logical and sound market design. By properly valuing reserves within a market-based construct that incents suppliers to provide these services as efficiently as possible, PJM will gain the flexibility it needs to meet the challenges of today and tomorrow consistent with its mission and the Commission's goals regarding price formation since at least 2014.[7] The Commission's decision to undo the

[7] 158 FERC 61,047 Federal Energy Regulatory Commission, 18 CFR part 35 [Docket No. RM17-2-000] *Uplift Cost Allocation and Transparency in Markets Operated by Regional Transmission Organizations and Independent System Operators* (January 19, 2017) at 5, P 6. *See Price Formation in Energy and Ancillary Services Markets*

significant work that went into that PJM filing was an unfortunate step backward for PJM's markets. P3 hopes that the Commission revisits that decision.

Beyond the ORDC, the Commission can continue discussions of ramping and flexibility products, but those discussions are akin to debating the brand of fiddle while Rome is burning. PJM is grounded on the principle that competitive markets will lead to reliability at least cost to consumers. That promise, which has largely been achieved, is at risk absent significant changes in direction from this Commission. Reforms to ancillary services, while helpful to consider, are simply not enough to account for the market disruptions that have otherwise occurred.

Respectfully submitted,

On behalf of the PJM Power Providers Group

By*: Glen Thomas*
Glen Thomas
Diane Slifer
GT Power Group
101 Lindenwood Drive, Suite 225
Malvern, PA 19355
gthomas@gtpowergroup.com
610-768-8080

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Operated by Regional Transmission Organizations and Independent System Operators, Notice Inviting Post-Technical Workshop Comments, Docket No. AD14-14-000, at 1 (Jan. 16, 2015) (Notice Inviting Comments); *Price Formation in Energy and Ancillary Services Markets Operated by Regional Transmission Organizations and Independent System Operators*, Notice, Docket No. AD14-14-000 (June 19, 2014) (Price Formation Notice).