UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

Grid Reliability and Resilience Pricing	**)**	**Docket No: RM18-1-000**

COMMENTS OF THE PJM POWER PROVIDERS GROUP[1]

"National policy for many years has been, and continues to be, to foster competition in wholesale power markets. In each major energy bill over the last few decades, Congress has acted to open up the wholesale electric power market by facilitating entry of new generators to compete with traditional utilities. As the third major federal law enacted in the last 30 years to embrace wholesale competition, the Energy Policy Act of 2005 strengthened the legal framework for continuing wholesale competition as federal policy for this country. The Commission has acted quickly and strongly over the years to implement this national policy."[2]

-Federal Energy Regulatory Commission, 2017

As a result of Congress' vision and the Federal Energy Regulatory Commission's ("FERC" or the "Commission") implementation, wholesale power market competition has been a demonstrable success in the organized markets throughout the country. In the PJM

[1] The PJM Power Providers Group ("P3") is a non-profit organization dedicated to advancing federal, state and regional policies that promote properly designed and well-functioning electricity markets in the PJM Interconnection, L.L.C. ("PJM") region. Combined, P3 members own over 84,000 MWs of generation assets, produce enough power to supply over 20 million homes and employ over 40,000 people in the PJM region covering 13 states and the District of Columbia. 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. For more information on P3, visit www.p3powergroup.com.

[2] https://www.ferc.gov/industries/electric/indus-act/competition.asp

Interconnection, L.L.C., ("PJM") wholesale market, specifically, reliability is robust, new entry is prevalent, air emissions are plummeting and power prices are at their lowest levels in decades. This big picture success cannot be ignored, nor should it be taken lightly. Decades of work by PJM, PJM Stakeholders, state commissions and FERC have produced a market that has largely fulfilled the future that Congress prescribed.

Markets are an evolution, not a revolution. Since PJM became a Regional Transmission Organization ("RTO") forty years ago, PJM and the Commission have been called upon to examine and alter rules to reflect the changing needs of the wholesale energy and capacity markets and to fill regulatory holes that were identified. Events such as the Polar Vortex, Hurricane Sandy and the Northeast Blackout of 2003, have all presented challenges from which PJM has learned. Time and time again, PJM Stakeholders have been called upon to roll up their collective sleeves and work through issues. Some of these issues were resolved through consensus, others through litigation. However, through all of these challenges, the benefits of the market endured.

The evolution of the markets has not always been easy. In the last 20 years, PJM has retired hundreds of generation units.[3] People worked at these power plants and communities relied upon these plants for their support. Fuel suppliers have had contracts cancelled, maintenance workers have had to find other work and school districts have had to account for lost tax revenue. Moreover, billions of dollars have been lost by investors who invested in assets that could not ultimately compete economically. Because of the competitive market structure,

[3] http://www.pjm.com/-/media/planning/gen-retire/generator-deactivations.ashx?la=en

the risks associated with these decisions have been borne by the shareholders and debt holders of the companies that own those assets, and not captive ratepayers.

Through the ups and downs, PJM's markets have successfully met the reliability needs of the footprint at prices that reflect the benefits of competition. Indeed, in 2016 the wholesale price of power in PJM was the lowest in the history of the RTO and reserve margins were above 25%.[4] Markets are not perfect or easy, but they are successful and certainly better than the alternative – cost-of-service regulation for power generation.

As an organization devoted to properly-designed and well-functioning markets in the PJM footprint, P3 welcomes the opportunity to engage in a conversation to improve the health and vitality of PJM's markets. The Secretary of the Department of Energy ("Secretary," and "DOE," respectively) has invited such a conversation[5] and, as an organization, P3 embraces that opportunity. While P3 views the DOE's September 28, 2017, Notice of Proposed Rulemaking ("NOPR" or "Proposed Rule"), entitled the "Resiliency Pricing Rule," pursuant to Section 403 of the DOE Organizational Act,[6] as a credible, but short-sighted, attempt to address challenges facing the organized markets, P3 agrees that there are issues that should be addressed by FERC. Unfortunately, the proposed solution put forth in the NOPR, a return to cost-of-service regulation

[4] State of the Market Report for PJM, 2 Q, January – June, dated August 30, 2017 ("PJM State of the Market Report") http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017/2017q2-som-pjm.pdf

[5] Testimony of Secretary Rick Perry U.S. Department of Energy Before the U.S. House Committee on Energy and Commerce Subcommittee on Energy, dated October 12, 2017, http://docs.house.gov/meetings/IF/IF03/20171012/106506/HHRG-115-IF03-Wstate-PerryR-20171012.pdf

[6] https://www.energy.gov/sites/prod/files/2017/09/f37/Notice%20of%20Proposed%20Rulemaking%20.pdf

in PJM for certain generation units, is inconsistent with federal law and sound public policy and must be rejected for the reasons stated herein.

I. The Problem with the DOE NOPR: A Return to Cost-of-Service Regulation for Certain Assets in PJM Would Be A Substantial Deviation From Long-Term FERC Policy To Ensure Competitive Options in the Market and Should Be Rejected.

A. A Return to Cost-of-Service Regulation for Certain Assets Would Hurt Consumers and is Inconsistent with Congress' Long-Standing Commitment to Competitive Wholesale Electric Power Markets.

For nearly 40 years, Congress has embraced a bipartisan, national policy of promoting competition in the wholesale electric markets. Thus, major overhauls of energy policy – including the Public Utility Regulatory Policies Act of 1978 ("PURPA"), the Energy Policy Act of 1992 ("EPAct 1992"), and the Energy Policy Act of 2005 ("EPAct 2005") have all promoted competition in the wholesale energy markets by reducing barriers to entry for market participants and increasing transmission access pursuant to just and reasonable rates and terms of service. As the U.S. Supreme Court held in one of the most significant cases upholding FERC's basic wholesale competition policy, as instituted in FERC Order No. 888:

> Our evaluation of the extensive legislative history reviewed in New York's brief is affected by the importance of the changes in the electricity industry that have occurred since the FPA was enacted in 1935. No party to these cases has presented evidence that Congress foresaw the industry's transition from one of local, self-sufficient monopolies to one of nationwide competition and electricity transmission. Nor is there evidence that the 1935 Congress foresaw the possibility of unbundling electricity transmissions from sales. More importantly, there is no evidence that if Congress had foreseen the developments to which FERC has responded, Congress would have objected to FERC's interpretation of the FPA. Whatever persuasive effect legislative history may have in other contexts, here it is not particularly helpful because of the interim developments in the electric industry. **Thus, we are left with the statutory text as the clearest guidance. That text unquestionably supports FERC's jurisdiction to order unbundling of wholesale transactions (which none of the parties before us questions), as well as to regulate the unbundled transmissions of electricity retailers.**[7]

[7] *New York* v *FERC*, 535 U.S. 1 (2002), at pp. 23-24. (Emphasis added)

FERC has also recognized the consumer benefits of wholesale competition, stating that "Ensuring the competitiveness of organized wholesale markets is integral to the Commission fulfilling its statutory mandate to ensure adequate and reliable non-discriminatory service at just and reasonable rates. Effective competition protects consumers by providing greater supply options, encouraging new entry and innovation, and encouraging demand response and energy efficiency."[8]

To be clear, competitive wholesale energy markets are still regulated markets; they are regulated and overseen by FERC to ensure fair and nondiscriminatory market practices amongst the market participants that result in just and reasonable rates for end-use customers. As the Independent Market Monitor for PJM ("IMM") has recently stated,

> Competitive markets were introduced as an alternative form of regulation to ensure that wholesale power is provided at the lowest possible price. The PJM market design does not incorporate a laissez faire approach. The PJM market remains regulated. The PJM market design incorporates a variety of rules designed to help ensure competitive outcomes.[9]

A return to embedded cost-of-service regulation for a select few market participants at the expense of all other wholesale energy providers and the customers for whom they serve would undo decades of the Commission's work and erode the benefits of markets. More specifically, the proposed regulatory cost-of-service requirement for the NOPR's eligible grid reliability and resiliency resources ("EGRRS") would require fully embedded energy and capacity costs, as the Reliability and Resiliency Rate requires, at a minimum, "fully compensated" and "fully allocated costs and a fair return on equity," and the Reliability and

[8] Notice of Proposed Rulemaking, Dated February 22, 2008, RM 07-19-000; AD07-7-000, at p. 1.

[9] PJM State of the Market Report, at p. 4.

Resiliency Costs require, at a minimum, "operating and fuel expenses, costs of capital and debt, and a fair return on equity and investment." See NOPR §35.28(g)(12)(iii) and (iv).

The NOPR would deviate from FERC's long-standing commitment to competitive wholesale markets, as implemented through numerous orders over the years. As one of many such examples, FERC Order No. 719, issued on October 17, 2008, finalized regulations implementing various provisions of EPAct 2005 that FERC stated would strengthen the operation and improve the competitiveness of organized wholesale electric markets through the use of demand response, encouraging long-term power contracts, strengthening the role of market monitors and enhancing RTO and independent system operator (ISO) responsiveness. No matter how well-intentioned, the Secretary's Proposed Rule cannot usurp the Congressionally-delegated role that FERC has been given over the past 40 years to ensure competition in the wholesale energy market.

B. The Secretary's Proposed Rule is Costly to Consumers, and Does Not Meet the Just and Reasonable Standard of FPA 205 and 206.

The Secretary's Proposed Rule to institute fully embedded cost-of-service rates for select market participants would cause a shocking increase to the current wholesale market energy and capacity prices for customers. There are no restrictions or bounds placed around the proposed requirement for embedded cost recovery for EGRRS units, only that they be "fully compensated" for energy and capacity costs, with an applicable "fair return on equity and investment." Even when boundaries on embedded costs are included, those costs invariably can be significant and far outside the realm of reasonable and prudent competitive wholesale market costs. As only one of many such examples, Michigan's fully embedded cost-of-service capacity prices for three of

its largest regulated utilities average in the $500 - $600 per MW-day,[10] while PJM's recent capacity prices were a fraction of those costs at $121.84 per MW-day in 2016/2017 and $141.16 per MW-day in 2017/2018.[11] The Proposed Rule is silent on how it would justify such a significant increase in rates to consumers, nor how this apparent increase in rates would meet the "just and reasonable" standard of the Federal Power Act's ("FPA") Sections 205 and 206.

The clear implication from the Proposed Rule is that capacity and energy prices should be increased from their current levels for select market participants. However, there is neither a process nor legal precedent for FERC to employ to evaluate an appropriate rate base or rate of return for a selected generator. Without a greater detailed, evidentiary record of how these increases would be "just and reasonable" for consumers, and, commensurately, how the continuation of the current tariffs would be "unjust and unreasonable," the Commission is left in a legal and operational quandary that will certainly invite years of litigation without addressing the underlying challenges facing the market.

C. The Proposed Rule Would Amount to Discriminatory Treatment of Other Wholesale Market Providers in Violation of the Federal Power Act.

FERC has a mandate under Sections 205[12] and 206 of the FPA to ensure that, in part, any sale of electric energy for resale in interstate commerce by a public utility does not subject any

[10] See, e.g.., I&M, Case No. U-17032; DTE, Case No. U-18248, Doc. No. 44, at 5-9, 15-16; and Consumers Energy, Case No. U-18239, Doc. No. 48 at 6-7.

[11] PJM State of the Market Report, at p. 221.

[12] 16 U.S.C. §§ 824d - 824e (2000). Section 205(b) states that "[n]o public utility shall, with respect to any transmission or sale subject to the jurisdiction of the Commission, (1) make or grant any undue preference or advantage to any person or subject any person to any undue preference or disadvantage. …" In addition, section 206(a) states that "[w]henever the Commission … shall find that any rate, charge, or classification demanded, observed, charged or collected by any public utility for any transmission or sale subject to the jurisdiction of the Commission, or that any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice or contract to be thereafter observed and in force, and shall fix the same by order."

person to any undue prejudice or disadvantage. Under these Sections, the Commission must determine whether any rule, regulation, practice, or contract affecting rates is unduly discriminatory or preferential, and it must disapprove any requested tariff changes that do not meet this standard. Indeed, consistent with federal law, FERC has historically gone to great lengths to develop market rules that are "fuel-neutral" and do not discriminatorily favor certain units based on fuel type.

The Secretary's Proposed Rule cuts against this established precedent. The proposed rule discriminates in favor of certain units that would qualify as EGRRSs, at the expense of all other generation resources in organized markets. While market rules by their very nature should reward unit features such as efficiency, performance and other values provided to the grid, those rules should do so on a non-discriminatory basis and afford all market participants the ability to compete to meet the market's need. By requiring a 90-day fuel supply, the NOPR does not do this, but instead compounds the problem of the proposed discrimination in the market by providing cost-of-service regulation to select units, thereby undermining the very purpose of competitive markets.

PJM's IMM recently expressed serious concerns with the potential for using cost-of-service pricing in organized markets, stating:

> Particularly in times of stress on markets and when some flaws in markets are revealed, nonmarket solutions may appear attractive. Top down, integrated resource planning approaches are tempting because it is easy to think that experts know exactly the right mix and location of generation resources and the appropriate definition of resource diversity and therefore which technologies should be favored through exceptions to market rules. …… Cost of service regulation is tempting because cost of service regulation incorporates integrated resource planning and because guaranteed rates of return and fixed prices may look attractive to asset owners in uncertain markets.
>
> It is essential that any approach to the PJM markets and the PJM Capacity Market incorporate a consistent view of how the preferred market design is expected to work to provide competitive results in a sustainable market design over the long run. A sustainable

> market design means a market design that results in appropriate incentives to retire units and to invest in new units over time such that reliability is ensured as a result of the functioning of the market.[13]

The Secretary's Proposed Rule creates cost-of-service, fully embedded rates for only some participants in an organized market at the expense of all others. Such a proposal would violate the FPA's prohibitions of discriminatory treatment that would result in an undue advantage for some market participants at the exclusion of all others.

II. The Solution: The Commission Has the Ability and Authority to Address Many of the Challenges Identified by the Secretary in the NOPR without Losing the Benefits of Competitive Markets.

While P3 urges the Commission to reject the solution proposed by the Secretary, P3 believes that there are material improvements that can be made to the PJM's markets that would more appropriately compensate generators for the value they provide to the grid. P3 believes that there are two distinct challenges facing PJM that give rise to some of the concerns identified in the NOPR that should be addressed by the Commission: 1) Antiquated energy price formation structures that do not recognize the evolving the resource mix, and 2) Resilience concerns brought about by changing geo-political and operational concerns. As described more fully below, the Commission should commence proceedings to address both of these issues.

A. Improved Energy Price Formation Will More Appropriately Compensate Generators for the Services they provide to the Grid and Address Some of the Concerns identified by the Secretary.

The Commission is well aware of the economic currents that are changing the PJM resource mix. As a result of low natural gas prices and other technological innovations, PJM has

[13] PJM State of the Market Report, p. 4.

seen significant development of new-natural gas combined cycle generation facilities. Since 2010, new natural gas units have poured into the PJM market and in 2015 gas surpassed coal as the primary source of capacity in PJM.[14] In addition, PJM has approximately 15 GW of combined cycle units under construction and projected to come online in the next several years and over 60 GW of new natural gas capacity is in the queue.[15]

With advances in technology, heat rates for natural gas combined cycle plants have dropped to a remarkable 6500 Btu/Kwh. These efficient and flexible units can produce power at approximately $19/MWh (assuming a gas price of $3.00/mmbtu). Given the ability to produce power at these low prices and the increasing portion of the market these plants occupy, the PJM supply stack has been flipped, with gas units being called to provide baseload power, and flattened.

Not surprisingly, PJM has seen significant retirements of older, mostly coal, units driven by competitive pressures and environmental regulations. Between 2011 and 2020, 28,396 MW have been, or are planned to be retired in PJM.[16] The majority (over 20,000 MWs) of these retirements are older, smaller coal facilities will an average age of 55 years and an average capacity of 162 MW.[17] To date, PJM has not experienced significant retirements of nuclear

[14] See, http://www.argusmedia.com/News/Article/?id=1048456&sector=POWER&region=ALLREGION.

[15] https://www.platts.com/latest-news/electric-power/louis/gas-fired-generation-buildout-not-over-in-pjm-21808446 and http://pjm.com/-/media/committees-groups/committees/oc/20171010/20171010-item-16-gas-electric-contingencies-update.ashx, at slide 4.

[16] PJM State of the Market Report, p. 479.

[17] PJM State of the Market Report, p. 482.

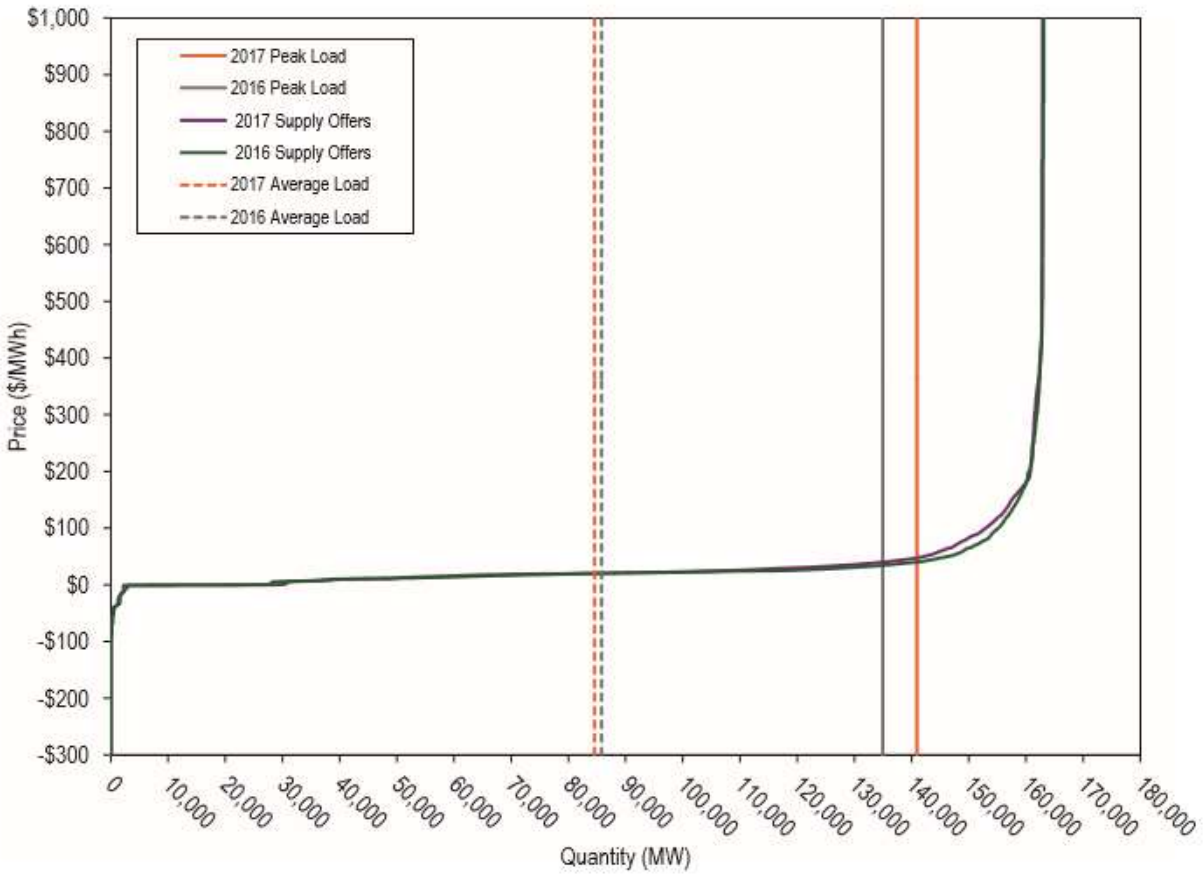
facilities; however, nuclear plant owners have raised questions about the future economic viability of these units.[18]

The PJM energy market has traditionally been a market that has relied on coal and nuclear plants to provide baseload power. Large nuclear and super-critical coal plants were designed to run virtually all the time and provide that power that was always needed in peak and non-peak situations. Because these plants could run all the time, they tended to be lower cost while gas was generally the marginal fuel.

In contrast to the supply stack when LMP was instituted, as seen in the graph below, the PJM supply stack has become exceedingly flat. In a typical year, PJM's daily load fluctuates between 80,000 MWs and 150,000 MWs. In 2016, the peak was approximately 151,000 MW.[19] In 2017, the peak load reached 145,000 on July 19.

[18] PJM Whitepaper: *PJM's Evolving Resource Mix and System Reliability*,, dated March 30, 2017.

[19] http://www.pjm.com/-/media/planning/res-adeq/load-forecast/summer-2016-pjm-5cps-and-w-n-zonal-peaks.ashx?la=en



Because of the new energy mix in PJM, there is a bounty of resources that participate in the market with offers below $40/Mwh. Indeed, the system load needs to exceed 145,000 MWs in order for the supply curve to have any slope. As a result, on a daily basis, PJM and resource owners are grappling with the challenge of pricing and dispatching assets against the backdrop of a virtually flat supply stack.[20]

The challenge of the flat supply stack is made more difficult because of the operating parameters of certain units in that stack. Many units that are needed to meet the needs of the system are not capable of starting up or shutting down on a moment's notice. While these units

[20] Given the unique resource mix and market structure in PJM, this flat supply stack challenge is more prominent in PJM than other RTOs.

may not be needed to meet the needs of the systems at 2 AM, these units are needed at 8 AM and in order for such a unit to be available at 8 AM, it needs to be running at 2 AM. PJM's outdated energy market pricing algorithm does not permit these units to set locational marginal pricing ("LMP") during all hours when they are running and serving load, causing them to incur financial losses in hours when lower cost resources are setting the LMP.

In order to "make room" for these inflexible units, PJM usually has to back down a more flexible unit that is available and capable of running at that time, knowing that unit can be called and online when load demands it. However, during those hours that the unit is not running (even though it is the most economic resource at that time), it is forced to stand down and in many respects be punished for its flexibility. Frequently, these "backed down" units are natural gas units that need to deal with the challenge of procuring natural gas when PJM dispatch is disconnected from LMP.

PJM has summarized the problem: "The limited LMP variations at the margins coupled with natural gas procurement limitations combine to reduce economic incentives for resources to follow PJM dispatch signals. This phenomenon erodes a critical mechanic in LMP pricing: its ability to create economic incentives for units to follow RTO dispatch instructions in order to ensure efficient dispatch of the system and maintain system reliability." [21]

PJM has put forth a framework for reforms that address this challenge.[22] PJM has suggested that energy prices should be set by the units that are running to serve consumer needs

[21] http://www.pjm.com/~/media/library/reports-notices/special-reports/20170615-energy-market-price-formation.ashx at page 5.

[22] http://www.pjm.com/~/media/library/reports-notices/special-reports/20170615-energy-market-price-formation.ashx, page 2-3.

and unit flexibility should be rewarded and not punished. The current rules do not do this and instead rely on out of market payments to specific units that must run for reliability purposes. Ultimately, such a regulatory paradigm does not send the appropriate price signal to either the flexible or inflexible unit.

P3 believes that PJM's proposal has merit and should be immediately placed on a path that would allow these market rule changes to be in place by the spring of 2018. While energy price improvements in PJM may not be enough to support all financially challenged coal and nuclear resources in PJM, the PJM proposal addresses a known market pricing flaw that is contributing to those challenges. Strengthening price formation in PJM is a step in the right direction to meet the DOE's objective that is consistent with several FERC rulemakings on price formation that, generally, sought to ensure the energy prices reflect all costs incurred to assure that supply meets demand. The Commission should move with urgency by initiating a Section 206 proceeding that focuses on these necessary and overdue energy pricing reforms.

B. After Energy Price Formation, Consideration of the Issue of Grid Resilience Should be a Priority for the Commission and PJM.

P3 agrees with Secretary Perry that, "A reliable and resilient electrical grid is critical not only to our national and economic security, but also to the everyday lives of American families." As the Secretary articulated, the consequences of grid failure are significant and public policies should support infrastructure investments that maintain a robust network to keep the lights on.

Fortunately, to date, PJM has been able to withstand extreme weather events and other challenges to its grid with relatively minimal disturbances to reliability. However, in light of the changing market dynamics and evolving threats to the grid, an examination of PJM's ability to maintain reliability and an exploration of what resilience actually means in PJM is appropriate.

Like energy price formation, PJM is already looking at the issue. In June, PJM published a resilience roadmap that provides short, medium and long-term issues that should be addressed.[23] PJM is conducting various studies and simulations with the goal of better understanding possible vulnerabilities that demand attention. Among the issues PJM is exploring are fuel security issues related to the natural gas delivery system[24], whether additional reserves are necessary to account for certain contingencies and the black start capabilities of the systems.

At this point, there are more questions related to resilience than answers. How is resilience defined? What is needed to ensure resiliency? What resources are needed to ensure grid resilience? How much resilience is needed? How should resilience be valued? How should RTOs plan for resilience?

While P3 believes that it always appropriate to examine these issues, any solution to an identified resilience challenge should be a market-based solution that is open to competition from any resource capable of meeting PJM's need on a non-discriminatory basis. Cost-of-service regulation for specific units is not an appropriate solution to any resilience challenge and the Commission should send a clear signal to PJM (and other RTOs) that such a suggestion will not be entertained.

In order to properly consider issues related to resilience, FERC should initiate a Notice of Inquiry ("NOI") proceeding to develop a record to answer the resilience questions raised above and to define any needed resilience products and permit RTOs sufficient time to reasonably

[23] http://www.pjm.com/~/media/committees-groups/committees/oc/20170606/20170606-item-18-resilience-roadmap.ashx

[24] http://www.pjm.com/-/media/committees-groups/committees/teac/20170914/20170914-reliability-analysis-updates.ashx pp 7-12

implement any reforms or new products. The NOI should not interrupt or suspend any current efforts being undertaken by PJM, but instead, should provide the Commission a comprehensive means to insure that the concerns raised by the Secretary are being addressed.

III. Conclusion

As the Commission evaluates how to appropriately take action in response to the NOPR, it should be clear that cost-of-service regulation for select assets would be a drastic and far-reaching mistake. As proposed, the NOPR would lead to undefined cost increases to consumers, as well as unlawful discrimination among resource providers. Cost-of-service regulation is problematic and short-sighted. It is the wrong solution for the long term and violates the law. Regardless of the urgency of the challenges facing the PJM markets, such a drastic solution is unjust and unreasonable, discriminatory, and would violate the FPA as well as longstanding Congressional prescribed laws.

However, the Commission has the means to address the Secretary's concerns that does not thwart FERC's Congressional mandate or eviscerate the benefits of competitive markets. By initiating a Section 206 proceeding to address very real energy price formation challenges and commencing a complimentary NOI proceeding to examine and find solutions to identified resilience issues, the Commission can respond to the Secretary while addressing issues that need

to be addressed in PJM and other RTOs. P3 urges the Commission to take both actions by the December 11, 2017, deadline set forth by the NOPR.

Respectfully submitted,

On behalf of the PJM Power Providers Group

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October 23, 2017

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 23rd day of October 2017.

On behalf of the PJM Power Providers Group

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