Comments of the PJM Power Providers Group (P3) on the

New Jersey 2019 Draft Energy Master Plan

The PJM Power Providers Group ("P3") appreciates the opportunity to submit comments regarding the New Jersey 2019 Energy Master Plan ("EMP")[1]. P3 is a non-profit organization dedicated to promoting properly designed and well-functioning competitive wholesale electricity markets as a way to deliver affordable, diverse, and reliable electricity in the 13-state and Washington, DC region served by PJM Interconnection, L.L.C. ("PJM"). Combined P3 members own approximately 65,000 megawatts of generation assets and produce enough power to supply over 50 million homes.[2]

In these comments, P3 addresses two of the questions put forth by the New Jersey Board of Public Utilities ("BPU") in its June 10, 2019, Notice regarding Draft Energy Master Plan Stakeholder Meetings. The BPU specifically noted that New Jersey is currently targeting the installation of 3,500 MW of offshore wind generation by 2030, and asks what concerns or barriers the BPU must address to develop these resources. Further, the BPU asks what policy, legislative, or regulatory mechanisms should be developed to ensure that New Jersey can most cost-effectively pursue a 100% carbon neutral power sector. These questions are best answered by analyzing the EMP's goal of finding "least cost pathways" and pursing them through competitive market

[1] Draft 2019 New Jersey Energy Master Plan, Policy Vision to 2050, June 10, 2019 ("Draft 2019 EMP").

[2] The views expressed in these comments represent the views of P3 as an organization and not necessarily the views of individual members with respect to any issue. For more information see www.p3powergroup.com

structures, not consumer-shouldered mandates, that recognizes the need to have a reliable supply of electricity available.

1. New Jersey's Environmental Goals Can be Achieved without Sacrificing the Benefits of Competitive Markets

As New Jersey considers its new Energy Master Plan, P3 urges the state to pursue its clean energy goals consistent with a competitive market structure. The EMP defines "100% clean energy by 2050" to mean 100% carbon-neutral electricity generation and maximum electrification of the transportation and building sectors (the sectors that produce the greatest carbon emissions in the state) to meet or exceed the Global Warming Response Act ("GWRA") emissions reductions by 2050. One hundred percent carbon-neutral electricity generation by 2050 is an ambitious goal and could prove to be extremely costly for New Jersey ratepayers while jeopardizing reliability, if the goal is pursued by the means presented in the current draft EMP that seeks to identify and procure power from specific technologies without regard to cost or capacity factors. Instead, New Jersey should clearly define its environmental targets, how they will be achieved realistically in light of the need for flexible units to stay on the system to complement and facilitate intermittent resources while maintaining reliability, and allowing market forces to determine how to best meet those goals.

The draft EMP states that "[t]he EMP is a living document that will guide New Jersey through the next 30 years. Given this, it acknowledges that there are impending technologies that are not yet available or discovered, and allows enough flexibility to use today's tools but also incorporate tomorrow's advances."[3] P3 agrees that a market based, technology-neutral

[3] Draft 2019 EMP at p. 12.

approach to achieve 100% carbon neutral electricity generation is the best means to incent the new technology that will help New Jersey meet this goal in the most cost effective manner.

New Jersey can achieve its energy goals through existing market-based constructs which would allow consumers to continue to enjoy the economic and reliability benefits of markets while knowing that environmental goals are being achieved. New Jersey should clearly define the environmental goals, determine the market-consistent, regulatory means to achieve the goals, and then allow the market to determine which resources are best equipped to meet those goals. Additionally, New Jersey has an obligation to ensure the lights remain on in New Jersey and thus should work with PJM to achieve its goals in a reliable manner. Specifically, New Jersey should set targets for reducing carbon by a certain number of tons by certain milestone dates, instead of mandating the construction of 3,500 MWs of offshore wind or subsidizing 3,000 MWs of nuclear power. By choosing the specific resources to meet New Jersey's carbon reduction goals and then providing those resources with out of markets subsidies (as is the current case with new offshore wind facilities and profitable nuclear powerplants in New Jersey), consumers are locked into energy choices that are likely less efficient and more expensive. Moreover, carbon-reducing energy technologies are stifled from the lack of economic incentive to innovate, because New Jersey artificially shrunk their market opportunity.

2. <u>Competitive Markets are the Best Way to Attain "Least-Cost Pathways" and Maintain Reliability</u>

The EMP states, "As New Jersey embarks on this bold transition to a clean energy economy, it must remain sensitive to, identify, and *pursue least-cost pathways* to achieving these goals and ensuring they are inclusive and beneficial to all New Jersey residents. The state must be cognizant of potentially *rising costs* and be aggressive in limiting these costs wherever

possible. In strategically phasing in goals over an appropriate and reasonable timeframe and pursuing measures and policy mechanisms to reduce aggregate energy consumption, the state will have the opportunity to *manage and control these costs*."[4] Unfortunately, the current draft EMP does not do this. As Stefanie Brand, the Director of the New Jersey Division of Rate Counsel stated in her July 17, 2019, remarks regarding the draft EMP, "[w]hile there is some language in the EMP talking about the need for affordability, there are no estimates or analysis of costs and benefits within the document that would allow for an evaluation of the provisions set out in the EMP."[5]

New Jersey is currently pursuing a very expensive "pathway" that does not consider costs and reliability nor the reality of needing to retain certain types of generation needed to facilitate the state's transition to clean energy. Consider, under current law and executive order, by 2030, 40% of the megawatts consumed in New Jersey will have a ZEC associated with them (at a cost of at least $300 million a year) while 50% will have a REC. New Jersey already has the highest RPS compliance costs in PJM at over $600 million a year.[6] In addition, New Jersey is actively seeking to support 3,500 MW of very pricey offshore wind[7] and 2,000 MW of storage.

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[4] Draft 2019 EMP at p. 20 (emphasis added).

[5] See https://www.nj.gov/rpa/docs/Remarks_of_Stefanie_A._Brand_Director_Division_of_Rate_Counsel_Regarding_the_2019_Energy_Master_Plan_7-17-19.pdf at p. 2

[6] See, https://pjm.com/-/media/committees-groups/task-forces/cpstf/20190826/20190826-item-05-carbon-pricing-market-impacts.ashx, at p. 9.

[7] And recently awarded 1,500 MW of offshore wind at a price of $98/MWh in a competitive market with an average price of $30/MWh.

These aspirational targets need to be squared with a 2014 PJM-commissioned study that indicated that if wind and solar penetration reached 30% reliability issues would arise that would demand significant investments in transmission and reserves.[8] Beyond the costs of subsidizing certain resources the costs associated with the additional reserve and transmission investments must be considered. Moving to the targets identified in the draft EMP raises material issues related to reliability as identified by PJM and P3 urges the BPU to be mindful of these reliability concerns and include them in any analysis moving forward.

Moreover, New Jersey can ill-afford to hoist hundreds of millions in additional costs on its ratepayers to fund subsidy programs that are not necessary in order to meet its environmental goals. If New Jersey is to remain competitive as a place to live or locate a business, electricity rates must remain competitive with neighboring states. For example, with the exception of New York, no neighboring state has a ZEC program, and if ZECs remain in place, New Jersey citizens will be shouldering a burden that consumers in neighboring states do not. The dramatic gap that exists between New Jersey and Pennsylvania, Delaware and Maryland could grow even further under the current draft EMP reducing the regional attractiveness of New Jersey.

Furthermore, the EMP seems to suggest that Maryland offshore wind is inexpensive.[9] Nothing could be further from the truth as Maryland's Offshore wind program is an extremely expensive means to reduce carbon. A comparison of the Maryland ratepayer-subsidized offshore wind project to a privately financed energy plant shows how high of a price Maryland consumers are paying for relatively little carbon reduction. The comparison is stark: Maryland's 100%

[8] See, https://www.pjm.com/committees-and-groups/subcommittees/irs/pris.aspx

[9] Draft 2019 EMP at pp 51-52.

ratepayer-subsidized 366 MW of offshore wind projects will cost $2.1 billion while a 100% privately funded plant, the CPV St Charles Energy Center with 725 MW of capacity, costs $775 million.[10] Maryland ratepayers will bear the burden of this extremely high cost with charges on their bill until 2043. Making the comparison even worse, the environmental benefits of the privately funded plant far outweigh the environmental benefits of the 100% ratepayer-subsidized plant. The costly $2.1 billion fully, ratepayer-subsidized plant has a carbon avoidance of 19,000 tons per year, while the $775 million, 0% ratepayer-subsidized higher MW plant, has a carbon avoidance of approximately 500,000 tons/year.[11] Therefore, not only do the ratepayers bear the burden of extremely high costs, the environmental benefits are difficult to justify when compared to lower cost alternatives. New Jersey should learn from this and utilize this information in developing the EMP along with the Integrated Energy Plan as discussed in the EMP.[12]

3. New Jersey Electricity Rates Are Already the Highest in the PJM Region and Forcing New Jersey Ratepayers to Fund Unnecessary Subsidies Would Compound this Problem.

Additionally, as New Jersey looks to implement the EMP and meet its goals, it is important to remember that New Jersey ratepayers *already* are burdened with high electricity rates [and continued stranded costs]. New Jersey electricity rates are already extremely high in the region – and abandoning the competitive market and awarding unnecessary subsidies on the backs of

[10] *See*, https://www.psc.state.md.us/wp-content/uploads/PSC-Awards-ORECs-to-US-Wind-Skipjack.pdf ; *See also* http://www.cpv.com/our-projects/cpv-st-charles/.

[11] *Id*.

[12] Draft 2019 EMP at p. 98-99.

already overly burdened ratepayers will make the disparity even greater. Utilizing information from the U.S. Energy Information Administration reveals that New Jersey ranks highest among other states in the region regarding electricity rates and ranks as the 41st out of 49th of all states.[13] Comparing annual average electricity price by state in 2017, New Jersey's average electricity retail price was 13.32 cents per kilowatt-hour compared to 10.13 in Pennsylvania, 10.91 in Delaware and 11.98 in Maryland.[14]

Furthermore, and even more concerning for New Jersey, when comparing the average price of electricity to ultimate customers for all sectors in all states, New Jersey's rates were not only higher than surrounding states, but also significantly increased in 2019 from 2018 while surrounding states' rates decreased. Specifically, in June 2018 New Jersey's electricity rate for all sectors was 13.72 cents per kilowatt-hour and in June of 2019 New Jersey's electricity rate *increased* to 14.01. Alternatively, in Pennsylvania rates *were lower than New Jersey and decreased* in 2019 with the rate in June 2018 at 10.01 and decreased to 9.60 in June 2019. Delaware's rates also were lower and decreased in 2019, with rates of 10.59 in June 2018 decreasing to 10.17 in June 2019. Maryland's rates also decreased from 2018 to 2019 with rates at 11.75 in June 2018 and dropped to 11.19 in June 2019.[15] To summarize, not only are New Jersey's electricity rates the highest among its surrounding states, its rates have also increased in the last

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[13] See Annual Average Electricity Price Comparison by State at http://www.neo.ne.gov/programs/stats/inf/204.htm ; see also https://www.eia.gov/electricity/state/newjersey/index.php .

[14] https://www.eia.gov/electricity/state/, data issued in January 2019.

[15] U.S. Energy Information Administration, Electric Power Monthly, With Data for June 2019, issued August 26, 2019, Table 5.6.A Average Price of Electricity to Ultimate Customers by End-Use Sector, by State, June 2019 and 2018, See https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

year, while the surrounding states' rates have all decreased over the year. New Jersey can ill afford to continue down this concerning path for its ratepayers.

4. <u>Environmental Goals are Being Met in PJM</u>

Although not often appreciated, greenhouse gas emissions reductions in PJM are better than the national average. Although some may argue that competitive markets will not get New Jersey far enough, the fact is, evidence shows how much progress has already been made, and, if the appropriate market structures are retained or further enhanced, the region could become even cleaner. PJM's market signals are rendering many coal plants uneconomic – not state mandates in the forms of RPS's or nuclear subsidies.

Proving that environmental progress can be achieved in a market paradigm, sulfur dioxide, nitrogen oxide and carbon dioxide emissions from power plants in PJM have dropped precipitously in the last decade, as more efficient generating facilities – many of which are in New Jersey – have replaced older less efficient units. As PJM reported in a March 2018 Emission Rates Report, the PJM system average of carbon dioxide emissions from 2013 to 2017 dropped from 1,112 pounds per megawatt-hour in 2013, to 948 in 2017.[16] This is a 15% decrease. Similarly, sulfur dioxide emission rates dropped from 2.20 to .79 pounds per megawatt-hour,[17] which is a 65% drop in those

[16] See *PJM 2013-2017 CO2, SO2, NOx Emission Rates, March 15, 2018,* at https://www.pjm.com/-/media/library/reports-notices/special-reports/20180315-2017-emissions-report.ashx?la=en, at page 4. "PJM 2018 Emissions Report").

[17] PJM 2018 Emissions Report, at page 5.

same 4 four years. Further, nitrogen oxide dropped from .95 to .66 pounds per mega-watt hour,[18] or a 31% decrease.

It is imperative to note that this significant environmental progress has been achieved within a competitive market construct in which not only did the system reduce emissions, wholesale electricity generation prices fell while reliability improved. This progress was not made because New Jersey decided it was best to pick which resources consumers used to generate its electricity, but rather through the setting of environmental goals and allowing the market, and consumers empowered with choice, to select which resources are best equipped to meet those goals.

5. <u>Competitive Electricity Markets are the Law in New Jersey</u>

The BPU asks in the notice of the draft EMP what policy, legislative, or regulatory mechanisms can New Jersey develop to ensure that it can most cost-effectively pursue a 100% carbon neutral power sector. Amidst complaints of stakeholders criticizing the EMP for not going far enough on meeting environmental goals, it is important to remember that competitive electricity markets are the law in New Jersey and environmental benefits are occurring. Moreover, stakeholders cannot merely wish away the law of physics that will require the retention of some fossil fired units in order to provide flexible services to support resources that with today's technology cannot be guaranteed to be available twenty-four hours a day.

In 1999, the Electric Discount and Energy Competition Act was signed into law by Governor Whitman. Among other things, the law declared that it was the policy of the state to,

> "(1) Lower the current high cost of energy, and improve the quality and choices of service, for all of this State's residential, business and institutional consumers, and thereby improve

[18] PJM 2018 Emissions Report at page 6.

> the quality of life and place this State in an improved competitive position in regional, national and international markets;
>
> (2) Place greater reliance on competitive markets, where such markets exist, to deliver energy services to consumers in greater variety and at lower cost than traditional, bundled public utility service . . . ."[19]

Since that time, the BPU and other New Jersey energy stakeholders have worked diligently, and with success, to bring the benefits of electric competition to New Jersey's homes and businesses. Prices in the BGS auctions provide a helpful window into how these markets have spurred on lower prices for consumers. New Jersey would not have been able to achieve this progress had it not been in a regional electricity market with twelve other states and the District of Columbia. The competitive regional wholesale power market, administered by PJM and regulated by the Federal Energy Regulatory Commission ("FERC"), has allowed New Jersey access to low cost power from a diverse power supply throughout a large region while allowing the state to comfortably maintain reliability. New Jersey consumers have saved hundreds of millions of dollars as a result of PJM participation, and these savings could continue or evaporate and reliability can be compromised depending on whether certain policy choices are made as part of the Energy Master Plan.[20] New Jersey rates would have been even higher if they had not been part of a competitive market.

In considering New Jersey's clean energy goals, the State should seek means to unleash the power of competition to achieve those goals where possible. Environmental progress to date

[19] New Jersey Electric Discount and Energy Competition Act of 1999.

[20] See, https://www.pjm.com/~/media/about-pjm/20151016-value-proposition.ashx

has been achieved mostly through pollutant-specific regulation or "cap and trade" market-based programs that are outside of the PJM market, yet reflected in wholesale electricity prices.[21] By pursuing environmental goals through these direct mechanisms, the benefits of the market are preserved while environmental progress is achieved. New Jersey displayed leadership in this regard when it asked PJM to implement its Generation Attributes Tracking System or GATS to track renewable energy credits. PJM accommodated the state's request and the program was administered successfully and other states followed suit.[22] Similarly, environmental considerations can be priced directly into the wholesale market through proposals such as one recently offered by PJM.[23] Either way, environmental goals are pursued, the benefits of markets are preserved, and reliability is maintained. It is only when New Jersey crosses that imaginary line and starts picking and choosing the resources that it believes are best suited to achieve its goals – and such decisions are made without regard to reliability -- that consumers become the big losers as the benefits of a competitive market are lost.

For decades, New Jersey has reaped the economic and reliability benefits of being in a regional electricity market. Over the years, the market has seen fluctuations as technology and consumer demands have evolved, but through time the markets have worked well and delivered value while reducing emissions. It is no wonder that currently wholesale power prices are at

[21] "…emissions trading would become one of the most spectacular success stories in the history of the green movement," https://www.smithsonianmag.com/science-nature/the-political-history-of-cap-and-trade-34711212/

[22] See generally https://www.pjm-eis.com/.

[23] See, https://www.pjm.com/~/media/library/reports-notices/special-reports/20170502-advancing-zero-emission-objectives-through-pjms-energy-markets.ashx. P3 encourages the BPU to work with PJM, its stakeholders and other states to evaluate the merits of PJM's proposal.

historic lows, reliability is high, air emissions have been greatly reduced and the generation mix is diverse.

6. LCAPP: A Lesson from the Past to Learn From

The Draft EMP states that the "the Integrated Energy Plan will also use the results of NJPBU's additional and ongoing studies as inputs to the data modeling."[24] As New Jersey is finalizing its EMP and working on the Integrated Energy Plan, it has an opportunity to either learn from the past or repeat a mistake. As the BPU knows: the Long-Term Capacity Agreement Pilot Program Act - known as LCAPP - passed in New Jersey eight years ago. Fortunately, LCAPP was judicially invalidated otherwise New Jersey consumers would have paid hundreds of millions of dollars extra for electricity than they should have.

As the facts show, the market price was *much lower* than the BPU-approved LCAPP capacity rate. The contract price for capacity approved in New Jersey for *CPV Shore* (one of three new natural gas plants chosen in 2011 for a subsidy) in 2018 *would have been $303.45 per MW* as compared to the *market clearing price in EMAAC of $120 per MW/day*[25] *– almost triple the difference*. If the New Jersey capacity contracts had not been judicially invalidated due to the unconstitutionally of the underlying LCAPP, New Jersey ratepayers **would have paid $48.5 million more last year than the market price for the 725 MWs of capacity associated with the facility.** In this case**,** New Jersey made the choice to pay nearly $50 million more for 725 MW than the market price in just 2018 for just this single year. Additionally, looking at 6 years, the

[24] Draft 2019 EMP at p. 98.

[25] Letter from Ralph LaRossa, PSEG President and Chief Operating Officer, to Kristi Izzo, Secretary to the New Jersey Board of Public Utilities, RE: Executed Standard Offer Capacity Agreement, April 26, 2011; see also PJM Base Residual Auction Results at https://www.pjm.com/markets-and-operations/rpm.aspx

total capacity premium New Jersey ratepayers would have been obliged to pay to *just this one plant* from delivery year 2016 to delivery year 2021 is over $231 million. Again**,** this is just an example of one plant out of three that were in the LCAPP program. It should also be noted that CPV Shore is fully operational and actively participating in the market without the subsidy payment. This LCAPP lesson, similar to the Maryland Offshore wind plan, is a very stark example of how competitive markets have a vastly different price outcome than the state picking of resources through an administrative program. The LCAPP experience provides the BPU with a valuable lesson in how costly it can be to consumers when regulators, and not the market, pick the winners.

7. <u>Several Items of Note in the EMP</u>

P3 applauds the BPU for recognizing the transportation sector needs to contribute to a state's carbon reduction strategy. In 2017, the transportation sector was the biggest source of greenhouse emissions in the United States, emitting 1.9 billion tons of CO2 annually.[26] Any comprehensive carbon reduction must include the transportation sector, and P3 fully supports an economy wide approach to carbon reductions.

It should be emphasized that P3 has been consistent in advocating that no specific fuel resource be subsidized – whether fossil fired or otherwise. Thus resources such as DERs [and demand side resources] should not be treated any differently or subsidized.[27] If DERs want to be paid like generation resources in PJM they should have to compete like other generation resources in PJM.

[26] https://e360.yale.edu/digest/transportation-replaces-power-in-u-s-as-top-source-of-co2-emissions

[27] Draft 2019 EMP at p. 50.

8. CONCLUSION

Moving forward, P3 encourages New Jersey to pursue its environmental goals through means that do not undermine the benefits of competitive markets and the reliable electric system that has been delivered to consumers for years. New Jersey's environmental goals can be achieved without sacrificing the benefits of competitive markets. Further, competitive markets are the best way to attain the EMP's goal of utilizing least-cost pathways while maintaining reliability. New Jersey should avoid extremely costly subsidies that the ratepayers bear the burden of, and as the Maryland Offshore wind numbers show, environmental benefits that are difficult to justify. Environmental progress can be achieved in a market paradigm, as evidenced by environmental goals that are being meet in PJM with sulfur dioxide, nitrogen oxide and carbon dioxide emissions from power plants in PJM that dropped quickly in the last decade. New Jersey can enjoy both environmental progress and the benefits of markets if policies are structured the correct way, and the EMP should lay the foundation for New Jersey to enjoy the best of both worlds.

P3 appreciates the opportunity to submit these comments and welcomes the opportunity

to work with the NJ BPU to accomplish the goals set forth by the draft EMP while preserving the benefits of electric competition for New Jersey homes and businesses.

Respectfully submitted,

On behalf of the PJM Power Providers Group

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