

**State of New Jersey
Board of Public Utilities
Investigation of Resource Adequacy Alternatives
Docket No. EO20030203**

Comments of Vistra Energy

Vistra Energy appreciates the opportunity to respond to the New Jersey Board of Public Utilities request for written comments on resource adequacy alternatives, including potential use of the Fixed Resource Requirement, Carbon Pricing, Basic Generation Service, or a Clean Energy Standard.

Vistra Energy supports New Jersey's carbon emission reduction goals. Many states are currently taking steps to implement various policy decisions to further their own decarbonization and other goals, in part to fill the gap given a lack of national climate policy. Vistra Energy, like an increasing number of other companies, has its own greenhouse gas reduction goals of 50% by 2030 and 80-100% by 2050, from a 2010 baseline. We believe that we need supportive policy to achieve the further-out goals, and we support a national, economy-wide carbon price as the right way to facilitate this dramatic shift. To that end, we are a founding member of the Climate Leadership Council, which is a bi-partisan coalition of businesses, environmental organizations, Nobel Laureate Economists, and others, which is actively advocating the U.S. Congress to implement a national economy-wide carbon price, paired with a dividend back to the American people who can least afford any increased energy costs. We see numerous benefits to a carbon pricing approach, including delivering the most cost-effective emissions reductions across energy resources and across sectors, incentivizing innovation, establishing a durable solution that will continue to function effectively even in a changing landscape, and providing a clear indication of policy direction that businesses and industries can plan toward and make strategic decisions to maintain their competitiveness regardless of their current business positions.

However, while we and others advocate for a national, economy-wide solution, we recognize that some states, including New Jersey, desire to take steps to reduce emissions in the absence of a national carbon pricing mechanism. We have supported states joining RGGI as a second-best alternative to a national, economy-wide carbon regime. In the current environment, some states like New Jersey are considering additional means to decarbonize. We were also part of a broad coalition that asked the Federal Energy Regulatory Commission to hold a technical conference or workshop on carbon pricing in regional electricity markets. We believe that carbon pricing is a superior and essential tool to achieve decarbonization. We appreciate that the current circumstances have driven states to consider whether pursuing the Fixed Resource Requirement (FRR) alternative for capacity procurement is a means to achieve their goals, but ultimately it is our view that FRR is likely to result in increased costs to customers and New Jersey can achieve its goals at less cost by leveraging the regional sensibilities and regional wholesale power markets.

Fixed Resource Requirement

Vistra supports the comments that have been filed by the PJM Power Providers (P3) and the Electric Power Supply Association (EPSA). Vistra agrees with the PJM Independent Market Monitor (IMM) that electing the FRR is likely to be a more expensive overall solution because of the need to contract with most in-state or in-zone resources, and the ensuing market power those resources will have.¹ Vistra strongly believes in the value of competitive markets, and believes competitive markets have delivered on their promise to deliver value to customers and foster technological innovation.

New Jersey's carbon emission reduction goals will require significant investment to achieve – New Jersey can get further toward that goal by making sure that it carefully evaluates the likely all-in costs of electing the FRR. We recognize New Jersey's focus on offshore wind, and the frustration that those resources will not clear the PJM capacity market. However, we think the appropriate calculation of whether or not to elect FRR goes beyond the matter of getting to count the offshore wind as capacity in the FRR. In addition to the IMM's market power concerns, New Jersey should also consider the ability to develop FRR plans that meet PJM requirements each year, with the potential to pay substantial penalties. To the extent New Jersey decides to manage this risk by signing long-term contracts, it will lock in technology choices that may become uneconomic during the life of the contract. It is very possible that pursuing FRR is a more expensive option than staying in the PJM capacity market and continuing to contract with offshore wind.

Carbon Pricing

We think it is worth exploring a carbon pricing approach even in a single-state configuration. To be clear, we think it would be preferable for New Jersey to push the Regional Greenhouse Gas Initiative (RGGI) toward considering tighter carbon caps. It is certainly true that multiple other RGGI states are considering similar questions as New Jersey. Further, carbon pricing for the electricity sector through RGGI has the potential to be coordinated with carbon pricing for the transportation sector if it can be developed through a forum like the Transportation and Climate Initiative. However, if that is not achievable at this time, we think there could be value in working with PJM to flesh out how a carbon dispatch price in addition to RGGI would work. PJM has recently given considerable focus to this issue in its Carbon Pricing Senior Task Force. We think that New Jersey should seriously consider this approach, which would make it a leader on climate issues by innovating how to use an incremental carbon price as a straightforward, no-nonsense, least-cost way to achieve ambitious emissions reductions.

New Jersey could establish a carbon price that would be paid by emitting resources located within its state (and preferably economy-wide). Those emitting resources would then incorporate the cost of those payments into their energy market offers. New Jersey could designate an agency to collect the carbon revenues. That agency could devise a method of sending those funds back to customers or use it for other purposes (e.g., to help close the budget shortfall caused by the

¹ See

https://www.monitoringanalytics.com/reports/Reports/2020/IMM_Potential_Impacts_of_the_Creation_of_New_Jersey_FRRS_20200513.pdf at 4.

economic impacts of the COVID-19 pandemic). To the extent the state wants to use funds to drive further the carbon emission reductions objectives of the Energy Master Plan (EMP), it should do so only for investment that will not distort competition.

In order to address the situatedness of New Jersey within the regional PJM wholesale electricity market, New Jersey may need to address the potential for leakage – where a carbon price applied to resources internal to New Jersey simply results in increased power generation and emissions occurring elsewhere. PJM and its stakeholders have been exploring the potential for border adjustments at the edge of a carbon pricing region within PJM to mitigate leakage.² We think this is a valuable opportunity for New Jersey to partner with PJM and its stakeholder group to work through the practical implications of how to implement an incremental carbon price within an interstate wholesale power market. Vistra and many other stakeholders are motivated to make carbon pricing a viable in-market tool to implement state clean energy policy, so New Jersey could have the benefit of focusing that broad expertise on solving the leakage problem for New Jersey.

Assuming such a border adjustment can be satisfactorily designed, New Jersey would gain the advantages that come with allowing a market-based, economically efficient mechanism to drive least-cost carbon reductions. Such a construct would encourage power generation resources to reduce emissions by building a premium into energy prices for carbon-free and lower-carbon energy resources. All resources with a lower emission profile than the marginal energy resource will receive incremental value under carbon pricing. A resource that has the same or higher carbon-intensity than the marginal resource, and thus displaces no carbon emissions, will receive no incremental value. As a result, existing carbon free resources would rely less on funds from Renewable Energy Credits (REC) and Zero Emissions Credits programs, and new carbon-free generation would be more competitive in the capacity market even under existing capacity market rules. While offshore wind, clearly a focus for New Jersey, may or may not become economic in the capacity market with a carbon price, we think a carbon price as a tool is fully aligned with the decarbonization focus of the EMP. Moreover, by imposing a carbon price as a tool, New Jersey can have the benefit of weighing the market-driven carbon reductions against options like offshore wind, to make the decision it thinks is best for New Jersey. Importantly, the benefit to clean resources from carbon pricing would not trigger application of the MOPR to those resources, because state election of a carbon price is seamlessly integrated with the wholesale markets, and it allows all resources to compete on the objective basis of pricing an externality.

Moreover, the clean premium that carbon pricing builds into wholesale energy prices would be automatically calibrated to be higher when displacing more carbon-intensive resources, and lower or zero if displacing only other carbon-free generation. In this way, it aligns with the interest expressed in the EMP in a clean peak standard, which would focus a clean premium on power during certain hours when that clean generation is most needed. However, carbon pricing does this automatically, without any need to (1) analyze what those peak hours should be or how they change over time as new resources come online, or (2) put processes in place to recalibrate clean premiums and call for new waves of investment whenever those hours change. This also

² See PJM Interconnection, Carbon Pricing Senior Task Force: <https://www.pjm.com/committees-and-groups/task-forces/cpstf.aspx>

aligns with the interest expressed in the EMP in hourly accounting of clean energy production. Such hourly accounting is much more rigorous than the current annual accounting of RECs under the Renewable Portfolio Standard (RPS), and New Jersey's interest in this shows that it takes the decarbonization goals seriously. We agree that more granular treatment of carbon emissions value will be necessary to pave the way to a more decarbonized system. Again, carbon pricing inherently builds in this granularity and requires no additional steps to implement, calibrate, or audit this feature.

We note that while New Jersey has developed ambitious goals at the state level, many of its neighboring states have similar goals and are working through similar questions of how to achieve them and how that will interact with the wholesale power markets. A system where each state pursues its own approach in the context of an interstate power grid risks a result with overlapping and inconsistent carbon or renewable regimes. The West Coast offers such an example. California's carbon cap and trade program applies not just to generation resources physically located within California, but also applies to the first mover of power imports into California. Meanwhile, Washington state now has its own carbon regime, which applies to generating resources located in Washington state. Because of this, a generator in Washington state that sells power into California is now put in a situation of paying for its carbon output twice. Similarly, the scenario described above where PJM institutes a one-way border adjustment that may end up associating Illinois or Ohio nuclear power with serving New Jersey, when Illinois or Ohio has already bought the zero emissions attribute of that nuclear power, results in two isolated accounting mechanisms that would allow two different states to claim the benefit of a single unit of carbon-free power. As many states press forward with measures to decarbonize, these are examples of how go-it-alone state efforts are inferior to a regional effort that would create consistent rules and accounting practices to ensure that states' claimed benefits are meaningful. We encourage New Jersey to confer with likeminded states on whether there is sufficient overlap in their goals to pursue regional strategies. If New Jersey can collaborate with other PJM states, for instance, then New Jersey would have the benefit of not just steering New Jersey's portion of the PJM region's energy and capacity needs, but the broader geographical coalition's share of the PJM region's energy and capacity needs. In particular, we think regional carbon pricing would be a more direct, effective, and least-cost means of achieving the decarbonization goals in the EMP.

A carbon price is not only a viable but also an essential tool for achieving the goals on the EMP. The EMP is notably economy-wide and thus looks to reduce carbon emissions across all sectors. The Integrated Energy Plan (IEP) provides a useful framework for the specific programs New Jersey should have in mind to start, in that it highlights investments that support New Jersey's carbon emission reduction goals as well as the costs and consequences of less optimal pathways. However, an economy wide carbon price or cap is precisely the tool to use to ensure that New Jersey ratepayers and taxpayers are getting the most cost-effective emission reductions across the various areas of focus. This is consistent with the desired refresh of the IEP every three years, but would readjust the focus in real time rather than every several years, and also would not be contingent on funding availability for the refreshed studies. The IEP modeling identifies a path to achieve New Jersey's carbon emission reduction goals based on what we know today, but there will be various breakthroughs and setbacks in various technologies and approaches going forward. For example, we can make an assessment today of whether solar tracking by itself vs.

fixed solar plus storage is more cost-effective. However, we cannot predict today which will be more cost effective in the future, as the cost profiles for each may change.

A carbon price ensures that New Jersey's programs and areas of focus automatically capitalize on the technology breakthroughs to achieve more carbon reductions where it is cost-effective to do so, and builds in the capacity to make tradeoffs across sectors when opportunity arises. It also keeps the technology risk on investors and not customers. If a company invests in the technology that ends up being cost disadvantaged, it will bear the burden and not customers. The natural gas generation boom of the early 2000s provides a useful example. At the time the investments were made, natural gas was cost competitive relative to coal and these investments made sense. In time, the price of natural gas increased and new natural gas plants experienced financial difficulty. Consumers did not continue to pay for these resources, rather many resource owners went bankrupt. The resources were sold to new owners at discounted prices and many continue to operate today in a new low natural gas price environment. Shifting the burden to investors protected consumers from changes in technology and market fundamentals. New Jersey should endeavor to similarly protect consumers as it looks to deeply de-carbonize.

An economy-wide carbon price would also underscore the focus on cleaner investment in New Jersey's environmental justice communities. In areas that are disproportionately exposed to sources of pollution that also emit carbon dioxide, a carbon price will help identify those areas and provide a market signal to invest in cleaner, less-emitting facilities in those communities. Moreover, our recommended approach of creating a dividend with the collected carbon revenues is another way that a carbon price as a tool can directly address environmental justice communities. The carbon dividend can be directed towards those who are least able to afford any increased energy costs, which will likely cover environmental justice communities, although it could also be explicitly directed to such communities.

Basic Generation Service

Since the passage of the Electric Discount and Energy Competitive Act in 1999, New Jersey's competitive market has developed tremendously into a great asset for both residential and commercial customers. Approximately 39% of New Jersey's electric load is served by third party suppliers (TPS).³ For those customers who have not yet transitioned to participating in the retail market, New Jersey's Basic Generation Service (BGS) construct is a well-designed option. Because of the success of the competitive market, any proposed changes to BGS must be carefully weighed against potential impacts to customers served by TPS. While modifications to BGS could be a tool to support New Jersey's carbon emission reduction goals, we think that New Jersey should not elevate its default service procurement above its competitive retail market to facilitate those ends.

Default service should represent a baseline level of service for customers who have not yet selected a TPS. Customers that want something more should shop for a supplier that best meets their needs in the competitive retail market. Through the competitive retail market, TPSs are already achieving more carbon emission reductions than BGS through their various green product options, many of which go beyond the minimum RPS requirements. If New Jersey

³ See <https://www.nj.gov/bpu/pdf/energy/NJ%20Electric%20Switching%20Data%20March%202020.pdf>

desires to reduce carbon emissions associated with the baseline level of service through modifications to BGS, it has the right to do so, but these changes should not negatively impact the robust retail market already in place. Rather, any changes to BGS should be market-based and become the new baseline level of service across the market for both default service and competitive retail load. Effectively, we see this as equivalent to increasing the RPS, or instituting a Clean Energy Standard. Indeed, if it were not, then the price to compare would likely become more expensive than many competitive retail offerings, driving default customers to switch to competitive retailers, and undermining New Jersey's efforts to achieve its carbon emissions reduction goals. Ultimately, we think that New Jersey's competitive retail market would be even more vibrant and robust in the absence of a default service option, so we would not want to see default service come to have an additional purpose that would create additional obstacles to a robust competitive retail market.

Moreover, it is now uncertain whether BGS offers a meaningful way to solve the problem of offshore wind facing the MOPR in the PJM capacity market. Even if FERC changes course in some way so as to not apply the MOPR to BGS in its entirety,⁴ the MOPR will still likely apply to any obligations on BGS bidders to procure clean capacity resources or resources in a particular location. Because of that, it is not clear what advantage the BGS offers relative to other tools like the RPS.

Clean Energy Standard

Between carbon pricing and a clean energy standard, carbon pricing is simpler to implement and will yield greater carbon emission reductions at a lower cost. As described above, New Jersey could, for instance, adopt an adder to the Regional Greenhouse Gas Initiative (RGGI) carbon price or could work with other RGGI states to tighten emission caps to reflect the states' accelerating carbon emission reduction goals.

If carbon pricing is not pursued, then a technology- and resource-neutral clean energy standard may be a next-best option worth considering. Before pursuing a clean energy standard, however, New Jersey should recognize that any clean energy standard would almost certainly constitute a subsidy under the definition adopted in FERC's recent PJM order. Hence, in the near-term a clean energy standard does little to resolve the tension between the wholesale markets and state policies.

If a clean energy standard can avoid or overcome the precedent established in FERC's PJM MOPR order, it would still need to address other serious flaws. Specifically, in its simplest form, a clean energy standard:

- does not change dispatch to lower carbon emissions;
- at increasing penetrations of emissions-free resources, may reward energy generation that displaces little or no carbon emissions;
- to the extent it relies on long-term contracts, shifts the risk and burden of support for cleaner resources onto consumers and away from investors; and

⁴ Vistra requested rehearing of FERC's finding that default service auctions are state subsidies.

- is harder to make economy-wide or harmonize with standards in other emitting sectors.

The first two flaws are a result of the fact that clean energy credits are awarded regardless of when a carbon-emission free resource produces energy – rewarding equally production that occurs when the marginal energy resource is carbon intensive and when the marginal resource is another carbon emission-free resource. The last flaw is a product of the fact that it is challenging to translate excess carbon emission-free generation into a substitute for emissions reduction in the transportation sector or vice versa, without a complicated mechanism to translate clean energy credits into transportation emission reduction credits (if that is even how transportation emissions reductions will occur). As a result of this last flaw, it is challenging to ensure that carbon emission reductions come from the lowest cost source of emission reductions.

A more complicated clean energy standard can influence the dispatch and avoid rewarding energy that does not displace carbon-emitting resources. The more complicated version would award clean energy credits based on the carbon emissions displaced, measured by the carbon intensity of the marginal energy resource. This would require measuring and publishing the emissions intensity of the marginal resource(s) in every real-time interval. Even with the more complicated version of a clean energy standard, a resource would not know with certainty at the moment of production the amount of clean energy credits it will be awarded, so incorporating the value of clean energy credits into real-time offers would be imperfect. In the end, the more complicated version of a clean energy standard will look like a more administratively burdensome, less effective version of carbon pricing. However, if carbon pricing is not pursued and the FERC MOPR precedent can be avoided or overcome, then the more complicated version of a clean energy standard may be worth exploring.

Conclusion

Vistra urges the Board to consider using carbon pricing to achieve New Jersey’s decarbonization goals. While a clean energy standard may have merit as a next-best alternative, Vistra suggests careful considerations of the design components described above to ensure that New Jersey gets the most effective tool for addressing emissions reductions. Regarding the BGS, Vistra asks that the Board evaluate any changes to default service while also considering the benefits of retail competition. Finally, Vistra urges the Board to give careful consideration to stepping away from competitive markets by pursuing a FRR, as it is our view that is likely to raise costs for customers and is not necessary to achieve New Jersey’s decarbonization goals.

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