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**Request for Written Comments on Resource Adequacy Alternatives –
Docket No. EO20030203**

Vitol Inc. (“Vitol” or “we”) offer the following comments in response to the State of New Jersey Board of Public Utilities’ (“NJBP” or the “Board”) March 25, 2020 Request for Written Comments.¹ Vitol recognizes the widespread concerns about the potential negative impacts of the recently issued Minimum Offering Price Rule (“MOPR”)² on the competitiveness of renewable resources in the PJM Interconnection, Inc. (“PJM”) capacity market. However, Vitol urges the NJBP to exercise caution in considering policy solutions. In particular, we recommend that the Board avoid adopting solutions that are command-and-control in design, or that disconnect New Jersey from the PJM energy markets. Rather, the combination of carbon pricing in the energy market, supplemented by the state’s highly effective Renewable Portfolio Standard (“RPS”), provides the optimal formula for achieving the state’s ambitious goals for greenhouse gas reductions and development of clean energy resources. The PJM energy market naturally integrates these incentives, ensuring that the state’s goals can be met through competitive outcomes at the least cost to ratepayers. Dissatisfaction with the PJM capacity market should not lead the Board to adopt policies that depart from or undermine this highly-effective formula, which provides a far more potent set of incentives than even an optimal capacity market could provide.

1. About Vitol

Vitol is a Delaware corporation that maintains its principal place of business in Houston, Texas. Vitol and its affiliated companies are commercially active in energy markets around the world. Vitol is an

¹ State of New Jersey Board of Public Utilities, *Docket No. EO20030203 – Request for Written Comments; Investigation of Resource Adequacy Alternatives* (issued Mar. 27, 2020), <https://www.nj.gov/bpu/pdf/publicnotice/2H%20-%20Capacity%20Proceeding%20Written%20Comments%20public%20notice%203.27.20.pdf> (the “Request”).

² *Calpine Corp. v. PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236 (2018).

active participant in New Jersey's electricity and environmental attributes markets, New Jersey's Basic Generation Service ("BGS") market, the PJM wholesale electricity markets, as well as environmental markets and fuel markets in the Mid-Atlantic, including the Regional Greenhouse Gas Initiative ("RGGI"). Vitol, through its affiliate Vitol Solar, has developed and owns 77 megawatts of solar generation capacity built over the past 3 years in New Jersey, of which 28 megawatts is utility-scale, with an additional 30 megawatts of solar generation capacity under consideration.

2. General Comments

Vitol appreciates that New Jersey wants to ensure that its mix of in-state resources is consistent with and promotes the achievement of the state's ambitious climate and clean energy goals. We also recognize widespread concerns that the Federal Energy Regulatory Commission's ("FERC") recent issuance of its MOPR for PJM could complicate the state's efforts, as well as the efforts of other states in the PJM footprint.

The interaction of state policy and wholesale electric markets is of great interest to the electricity trading community. Vitol appreciates NJBPU's attention to this topic, as the issues raised in this Request will likely define the future of competitive electricity markets in the state and could influence the policy choices of other states. Vitol believes that the preservation and enhancement of wholesale electricity markets are essential. As with any other market, wholesale electricity markets require consistent price signals, low barriers to entry and exit, and transparent information exchange to function well. Indeed, independent analysis has shown that competitive wholesale electricity markets save ratepayers billions of dollars each year, in part through substantial fuel savings and increased trading.³

³ See, e.g., Steve Cicala, Energy Policy Institute at the University of Chicago, *Imperfect Markets Versus Imperfect Regulation in U.S. Electricity Generation* (estimating \$3 billion per year in savings from wholesale electricity markets), https://epic.uchicago.edu/sites/default/files/UCH-ElectricityDistribute.Final_.pdf; Johannes Pfeifenberger, The Brattle Group, *Electricity Market Restructuring: Where Are We Now?* at 3, http://www.brattle.com/system/publications/pdfs/000/005/381/original/Electricity_Market_Restructuring-

During its process to consider alternatives to the PJM Reliability Pricing Model (“RPM”) capacity market, the NJBPU should rely on the time-tested criteria that are generally accepted as the beneficial features of wholesale electricity markets. Any alternative regime should foster competition, which is better aligned with markets, highly sought after by the investment community, and greatly valued by ratepayers. The NJBPU must resist any urge to utilize command-and-control regulation, long recognized to significantly increase costs and result in long-term stranded resources as a consequence of the inefficient distribution of resources.

Vitol acknowledges that New Jersey has set ambitious clean energy goals and is playing a leadership role in climate policy, both nationally and internationally. New Jersey can and should seek to attain its goals principally through market-based and multi-state programs, which provide beneficial economies of scale. Moreover, the NJBPU should focus its efforts to adopt and rely upon a market mechanism that ties into the powerful PJM energy market, which has over two decades of success in achieving competitively determined market outcomes, ranging from balancing real-time supply with demand to providing transparent energy price signals that help to form long-term bilaterally traded energy markets utilized by many participants, including renewable resource developers. As a climate policy leader, New Jersey should ensure both that its policies will meet its overall goals and that the chosen means do not unnecessarily undermine well-functioning energy markets. Utilizing a robust carbon pricing program supplemented by New Jersey’s RPS program, with its competitive renewable energy certificate (“REC”) market, should be the solution endorsed by the NJBPU to achieve New Jersey’s clean energy goals

[Where Are We Now.pdf?1481220206](#) (estimating 3-8% savings on fuel, and \$1.2-1.8 billion per year in generation-related investment-cost savings in MISO alone); Press Release, PJM Marks 20 Years of the Competitive Electricity Market (Mar. 27, 2017) (estimating \$2.8-3.1 billion in savings for PJM consumers annually), <https://www.pjm.com/~media/about-pjm/newsroom/2017-releases/20170327-pjm-marks-20th-anniversary-of-competitive-electricity-market.ashx>.

in a competitive, sustainable, and cost-effective manner. Accordingly, Vitol offers comments on certain questions raised in the Request.

3. Vitol's Responses to Questions 1 and 2 of the Request

Vitol acknowledges that the NJBPU and other stakeholders⁴ have concerns about the potential impacts of the MOPR on the development of renewable resources throughout the PJM footprint. The prospect of this outcome has already prompted some states to contemplate exiting PJM's organized capacity market, for example, by using PJM's Fixed Resource Requirement ("FRR") option as an alternative.⁵

However, the FRR approach runs the risk of resulting in a command-and-control style regime for adding new capacity, such as an Integrated Resource Planning ("IRP") process. The use of an IRP process is an unnecessary and inappropriate response given the complexity of existing markets. An IRP-like process would disconnect New Jersey from well-functioning markets in the larger PJM region. Experience shows that an IRP approach is characterized by high levels of stranded costs and low rates of outside investment.⁶ For these reasons, the IRP approach is not well suited to promoting decarbonization; it fails to supply the necessary planning flexibility, voluntary private investment, and regional coordination.⁷

⁴ See e.g., *American Pub. Power Ass'n, et al. v. FERC*, Docket No. 20-1135 (D.C. Cir. 2020); *Ill. Commerce Comm'n v. FERC*, Docket No. 20-1645 (7th Cir. 2020).

⁵ Greentech Media, *PJM's Compliance Plan Doesn't End FERC Order's Threat to Renewables, Experts Say*, <https://www.greentechmedia.com/articles/read/despite-some-relief-pjms-plan-wont-end-ferc-orders-threat-to-renewables> (Mar. 20, 2020).

⁶ See e.g., New Jersey Spotlight, *BPU Dismisses Petition to Recoup \$3 Billion in Stranded Costs from PSE&G*, <https://www.njspotlight.com/2010/06/10-0607-1925/> (Jun. 8, 2010) (last visited Apr. 28, 2020) ("The initial complaint arises out of one of the more contentious issues dealing with energy deregulation. It was approved by the legislature and signed into law by former Gov. Christie Whitman in 1999, and allowed PSE&G to recoup so-called stranded costs for its fleet of power plants. The Newark utility swayed lawmakers at the time by arguing the facilities would not be as valuable in the new competitive marketplace as their booked value.").

⁷ See e.g., New Jersey Conservation Foundation, *A Compelling Vision of New Jersey's Clean Energy Future* at p. 28, https://www.state.nj.us/emp/pdf/draft_emp/New%20Jersey%20Conservation%20foundation%20and%20the%20Pinelands%20Preservation%20Alliance%20comments.pdf (Sept. 2019) ("A growing number of states are adopting aggressive goals for renewable and clean energy deployment, in efforts to address the growing risks of climate

Moreover, utilizing an FRR approach that leads to the adoption of an IRP process could have unintended consequences for the state's successful RPS program. The RPS program, as drafted, contemplates links with the broader PJM energy markets for meeting its goals. For instance, the program allows for compliance requirements to be met by certain resources within the PJM footprint but outside of New Jersey. These out-of-state resources compete in an open market to earn commercial contracts with participants who have an RPS compliance obligation in New Jersey, leading to efficient utilization of resources without the overbuilding of expensive resources within New Jersey or forcing the development of land-intensive resources in New Jersey where land resources are limited. An IRP-type replacement program would require significant intervention that likely will not be able to replicate the efficiencies that exist today to allow eligible resources in the broader PJM market to apply competitive pressure to help New Jersey, and its ratepayers, to meet RPS goals in a least-cost manner. Vitol respectfully urges the NJBPU to avoid heavy-handed intervention to determine the kinds of resources that will enter and exit a market and how they will be compensated.

Vitol strongly believes that market-based solutions are preferable to command-and-control, administratively-set measures. Accordingly, Vitol urges the NJBPU to adopt and rely primarily upon a robust carbon price mechanism to meet its clean energy goals and utilize its RPS program, with a tradeable REC market, as a supplement. The PJM energy market currently internalizes carbon pricing from the RGGI and REC prices from the RPS.⁸ Thus, an optimal approach is to rely on the integration of carbon pricing mechanisms into the PJM energy markets; market participants will necessarily factor carbon and REC prices into their market bids.

change...How might this be done, especially by restructured states in a region served by a large, single wholesale electricity market? Many observers look to historical integrated resource planning (IRP) for guidance on how to achieve clean energy goals. But historical IRP wasn't designed to address...key decarbonization issues.").

⁸ See PJM Manual 15: Cost Development Guidelines <http://www.pjm.com/~media/documents/manuals/m15.ashx> (last visited Apr. 27, 2020).

With a robust carbon price, the PJM energy markets can provide far more powerful incentives for positive climate and clean energy outcomes than the more limited capacity market could do even before the MOPR. In PJM's day-ahead and real-time energy markets, a robust carbon price positions zero-carbon-emitting resources and low-carbon-emitting resources to be more economically desirable over higher-carbon-emitting resources, producing unit commitments and dispatches that are more closely aligned with New Jersey's clean energy goals. In addition, a robust carbon price becomes incorporated in long-term competitive bilateral energy market prices, sending a signal to developers that it is economic to build clean resources to meet New Jersey's clean energy goals.

Indeed, to the extent that the MOPR dampens incentives for the development of renewable resources, there will be a correction for this effect in the PJM energy markets in that a robust carbon price will provide increased revenues for these resources. Irrespective of the MOPR, the RPS obligations will continue to apply and impose their own demand-pull for renewables. Therefore, if the capacity market delivers diminished revenues to renewables, there will be an offsetting increase in REC prices supplementing the carbon price revenues, to the extent that certain technologies built in response to the RPS may have costs exceeding carbon price revenues.

In any event, any concerns that the NJPBU has about the PJM capacity market should not result in exiting or impairing the state's participation in the broader PJM energy markets. Instead, Vitol encourages the NJPBU to strengthen the effective formula of relying on the energy markets to efficiently transmit robust carbon prices supplemented by REC prices.

Indeed, in Vitol's view, the better course of action for the state would be to utilize a robust carbon price and market-based renewables policies. These actions could more than offset any negative impacts of the MOPR on the achievement of the state's climate and clean energy objectives.

4. Vitol's Responses to Question 3 of the Request

Since 2002, the annual BGS supply auctions created and administered by the NJBPU have proven to be an innovative and successful way to meet the state's growing demand for electricity. The participation by many wholesale electricity suppliers in the innovative auction process yields competitive prices for electricity supply for New Jersey's ratepayers. The full-requirements structure facilitates competitive pressure on the market-based components of BGS supply, which include energy and RPS compliance obligations. The combination of the existing BGS full-requirements product structure with complementary carbon pricing and RPS mechanisms could be sufficient to meet the state's clean energy objectives.

Vitol urges the Board to avoid modifying the BGS product by integrating requirements for long-term contracts or other command-and-control policies to meet clean energy goals. To date, New Jersey's RPS has easily achieved its targets through tradable REC markets without the need to obligate ratepayers to long-term contracts or feed-in tariffs. Although the state's RPS policies integrate some forms of long-term contracts as part of its RPS policy, particularly within its SREC market, these have been embedded within the overall REC markets (as opposed to the outright displacement of the REC markets). Well-designed RPS programs with tradable RECs already facilitate forward contract markets and bilateral long-term purchase agreements. Unlike administratively-imposed long-term contracts, however, these privately-negotiated contracts appropriately place the risk of changes in the renewables market onto investors, rather than rate-payers.

Again, to the extent that the NJBPU seeks to bolster incentives for the development of renewable resources to counter any impacts of the MOPR, the Board should focus on bolstering carbon prices supplemented by REC prices; these price-based incentives are efficiently and effectively transmitted through the BGS under its existing design.

5. Vitol's Responses to Question 4 of the Request

A range of market-based policy mechanisms are available that can promote New Jersey's goals for greenhouse gas reductions and in-state development of clean energy resources. Regardless of whether the NJBPU chooses the RPM or FRR Alternative, NJBPU should rely primarily on a robust carbon pricing regime. According to the Analysis Group, a carbon price can spur faster access to sufficient revenue certainty, with local pricing incentives to site such projects in optimal locations, and with potential savings deriving from market efficiencies.⁹ Further, if a carbon pricing policy is in place, any new resource will necessarily internalize its exposure to that price over its operating life; there is no need for the NJBPU to artificially set an upfront carbon "value" for new resources, as suggested in question 2(b)(ii) of the Request.

Vitol respectfully urges the state to rely on the RGGI as its carbon pricing foundation. A multi-state allowance market enables emissions reductions to take place at the lowest possible cost. Moreover, the prospect of all Northeast and Mid-Atlantic states as members, with an approximate population of 71 million people,¹⁰ speaks to the overall health of the RGGI market. RGGI serves both as a well-regarded global model for a well-functioning emissions reduction market and is scalable to incorporate additional jurisdictions in the future.

In recent years, the most trenchant criticism of RGGI has been that the allowance price is too low to adequately incentivize the development of clean energy resources.¹¹ However, a low RGGI allowance

⁹ The Analysis Group, *Clean Energy in New York State*, <https://www.nyiso.com/documents/20142/2244202/Analysis-Group-NYISO-Carbon-Pricing-Report.pdf/81ba0cb4-fb8e-ec86-9590-cd8894815231?t=1570098686835> (Oct. 3, 2019).

¹⁰ See State Population Totals and Components of Change: 2010-2019, United States Census Bureau, <https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html> (last visited Apr. 21, 2020).

¹¹ The Brattle Group, *Pricing Carbon into NYISO's Wholesale Energy Market to Support New York's Decarbonization Goals* at v, https://www.nyiso.com/documents/20142/2244202/2017-Pricing_Carbon_into_NYISOs_Wholesale_Energy_Market-Brattle-Report.pdf/ec266c79-d819-9466-77c8-

price is not an immutable fact. In 2013, RGGI auction prices hovered around \$2 per short ton of carbon dioxide (CO₂). As of March 2020, auction prices have risen to \$5.65 per short ton.¹² The latest pricing, combined with program review emission cap adjustments,¹³ offer forward-looking indications of a strengthening regional model for climate policy. New Jersey's participation signals the importance of RGGI and other forms of regional cooperation for states pursuing climate action while demonstrating the program's stability. Accordingly, any proposal that NJBPU considers advancing should acknowledge New Jersey's leadership role in the RGGI, the potential for further emissions reductions driven by lowering the RGGI cap, and the interaction of any wholesale electricity market carbon pricing mechanism with the overall RGGI program.

To address the low allowance price in the RGGI, the NJBPU could consider the model under development by the New York Independent System Operator ("NYISO"). The NYISO proposal would introduce a higher carbon price into New York's competitive wholesale electricity markets, which would be added to the RGGI allowance requirements. The NYISO carbon price would equal the "social cost of carbon", as determined by the New York Department of Environmental Conservation, with adjustments for amounts paid under the RGGI.

The NYISO also ameliorates the RGGI's relatively weak controls on emissions "leakage." Emissions leakage can occur when carbon pricing covers only one or a few states, but the relevant market covers a larger area. Under those circumstances, the carbon pricing regime can have the effect of simply shifting emissions-generating activities to the uncovered states. Because the RGGI does not encompass all of PJM,

[66c6db8e3b53](#) (Aug. 10, 2017) ("The wholesale markets are designed to provide electricity reliably and cost effectively, but the costs considered in the markets do not include the cost of carbon emissions—except as conveyed through the RGGI price, which is currently quite low. By not internalizing the environmental costs, the markets are not aligned with New York's carbon reduction targets. This inconsistency is growing as carbon policy objectives become more ambitious").

¹² RGGI, *Auction 47*, <https://www.rggi.org/Auction/47> (Mar. 11, 2020).

¹³ RGGI, *Elements of RGGI*, <https://www.rggi.org/program-overview-and-design/elements> (last visited Apr. 21, 2020).

it is vulnerable to this leakage risk. The NYISO carbon pricing proposal addresses leakage risks through “border adjustments” that equalize import and export prices with in-state resources.

Even with both a multi-state and state-specific carbon pricing program, NJBPU may seek greater assurances that there will be sufficient development of clean energy resources to meet its goals. If NJBPU is considering a renewable-specific policy, it should focus on enhancing its successful, market-based RPS program—and avoid policy approaches that mandate particular project investments or long-term contracts. Multiple states have found success with hybrid approaches that combine carbon pricing with a robust RPS program.¹⁴

6. Conclusion

New Jersey and NJPBU deserve praise for their ambitious and forward-looking approach to addressing climate change and promoting the development of clean energy resources. As the NJPBU considers different policy approaches, Vitol respectfully urges the Board to emphasize approaches that integrate with PJM’s energy markets and are market-based, sustainable, reliable, and transparent. To this end, Vitol recommends reliance on a robust carbon price, preferably through the RGGI program, along with possible consideration of a state-specific carbon pricing policy and an enhanced supplemental RPS program.

These comments are respectfully submitted on Vitol’s behalf by:

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¹⁴ Center for Climate and Energy Solutions, *U.S. State Carbon Pricing Policies*, <https://www.c2es.org/document/us-state-carbon-pricing-policies/> (June 2019) (“California’s program which followed was the first multi-sector cap-and-trade program in North America...As of 2017, Massachusetts also implemented regulations to establish an additional cap-and-trade program for its power sector that runs in parallel with RGGI but extends out to 2050.”)