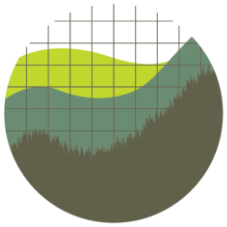

Institute *for*
Policy Integrity
NEW YORK UNIVERSITY SCHOOL OF LAW

May 20, 2020

VIA ELECTRONIC SUBMISSION

Aida Camacho-Welch, Secretary
Bureau of Public Utilities
44 South Clinton Avenue, 9th Floor
Post Office Box 350
Trenton, New Jersey 08625-0350

Docket: EO20030203 – Investigation of Resource Adequacy Alternatives

Subject: Institute for Policy Integrity Comments

Dear Secretary Camacho-Welch:

The Institute for Policy Integrity at New York University School of Law[1] (Policy Integrity) appreciates the opportunity to submit these initial comments to the New Jersey Bureau of Public Utilities (BPU) in response to its March 27, 2020 Request for Written Comments and April 17, 2020 Supplemental Notice for Written Comments in the above-captioned proceeding. Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

Thank you for your consideration of the attached comments.

Respectfully,

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[1] This document does not purport to present the views of New York University School of Law.

Institute for Policy Integrity Comments on Resource Adequacy Alternatives

In its March 27, 2020 Request for Written Comments, the New Jersey Bureau of Public Utilities (BPU) poses four questions.[2] For the sake of coherence and clarity, Policy Integrity's responses to some of those questions follow (1) a summary of key points of background to this proceeding and (2) Policy Integrity's analysis of relevant circumstances and considerations.

As BPU decides how best to provide for resource adequacy in New Jersey, Policy Integrity encourages it to:

- Recognize the important uncertainties present, including the uncertain fate—both in court and following the upcoming November 2020 federal election—of the Federal Energy Regulatory Commission (FERC) decisions that have given rise to this proceeding.
- Count among the costs of pursuing a Fixed Resource Requirement (FRR) approach to resource adequacy those that would arise from:
    - factors like search and transaction costs, the presence of market power, and challenges to providing for transparent price signals; and
    - developing sufficient institutional capacity to coordinate and police contracts for electricity generation resource capacity.
- Explore the possibility of a program of carbon pricing in addition to participation in the Regional Greenhouse Gas Initiative (RGGI), which can serve as a countermeasure to FERC's expanded application of the Minimum Offer Price Rule (expanded MOPR) in PJM's service territory, and which would also act as an anchoring and coordinating feature of New Jersey's suite of clean energy and emissions reduction policies.

1. Background

Answering the questions in this proceeding requires an understanding of the following elements: New Jersey's clean energy policy agenda; New Jersey's approach to greenhouse gas emissions reduction; PJM Interconnection (PJM)'s capacity market; FERC's December 19, 2019 Order; the FRR approach to resource adequacy provided for in PJM's tariff; and PJM's March 18, 2020 compliance filing that responds to FERC's December 2019 Order. Each of these is introduced briefly below. Readers familiar with these items can skip this Background section and proceed directly to the analysis presented in Section 2.

New Jersey's clean energy policy agenda. New Jersey's clean energy policies are embodied in legislation, regulations, and described comprehensively in Governor Murphy's 2020 Energy

[2] Request for Written Comments, In the Matter of BPU Investigation of Resource Adequacy Alternatives, BPU Docket No. EO20030203 (Mar. 27, 2020); *see also* Order Initiating Proceeding, In the Matter of BPU Investigation of Resource Adequacy Alternatives, BPU Docket No. EO20030203 (Mar. 27, 2020) [hereinafter "BPU Order"].

Master Plan.[3] Building on New Jersey's Global Warming Response Act (GWRA),[4] which sets a statewide greenhouse gas emissions reduction target of 80% by 2050 from a 2006 baseline, the Offshore Wind Economic Development Act of 2010,[5] the Solar Act of 2012,[6] and, most recently, the Clean Energy Act of 2018 established several clean energy programs and deployment targets for the year 2030.[7] Mechanisms created by these programs give owners of supported resource types clean energy certificates for each unit of energy they generate[8] and require New Jersey's retail electric service providers[9] to purchase and retire a certain number of those certificates each year.[10] In addition, because New Jersey resumed participation in RGGI in 2020,[11] its electricity generation facilities with a capacity of at least 25 MW must now purchase allowances to emit greenhouse gases.

New Jersey's approach to emissions reduction and leakage. New Jersey's ambitious greenhouse gas emissions reduction targets do not ignore the potential problem of leakage—an increase in emissions outside of New Jersey that results from in-state actions to reduce emissions. The law establishing those targets defines the term "statewide greenhouse gas emissions" to include emissions arising from electricity imports.[12] Similarly, New Jersey's "RGGI Law," adopted in 2008 in anticipation of the state's initial participation in RGGI, expressly requires the state to

[3] NEW JERSEY, 2019 ENERGY MASTER PLAN: PATHWAY TO 2050 (2020).

[4] 2007 N.J. Laws c.112.

[5] 2010 N.J. Laws c.57.

[6] 2012 N.J. Laws c.24.

[7] 2018 N.J. Laws c.18. The programs include support for existing nuclear facilities, a renewable portfolio standard target of 50% renewable electricity generation, an offshore wind capacity target of 3,500 megawatts (MW) (and 7,500 MW by 2035), and an energy storage capacity target of 2,000 MW, among others.

[8] The certificates—referred to in these comments as "clean energy certificates"—take form of Zero Emissions Certificates (ZECs) for nuclear energy; Class I Renewable Energy Certificates (RECs) for energy from qualifying renewables within and beyond New Jersey's borders; Class II RECs for qualifying hydropower facilities; Solar RECs for solar facilities interconnected to a distribution system that serves New Jersey customers; Transition RECs (TRECs) for energy from solar facilities that would have qualified for SRECs but were to be developed after the state met the quota of 5.1% of solar generation; and Offshore Wind RECs (ORECs) for energy from offshore wind facilities.

[9] Many commercial and industrial electricity consumers in New Jersey electricity receive service through a third-party Electric Generation Supplier licensed to operate with the service territory of one of the state's four Electric Distribution Companies (EDCs). By contrast, the vast majority of residential electricity customers in New Jersey are served directly by an EDC as a result of opting for Basic Generation Service.

[10] The certificates are also purchased by entities outside of the electricity sector to decrease the carbon footprint of their energy consumption.

[11] Press Release, N.J. Governor Phil Murphy, Governor Murphy Announces Adoption of Rules Returning New Jersey to Regional Greenhouse Gas Initiative (June 17, 2019) (announcing adoption of Carbon Dioxide Budget Trading rule and Global Warming Solutions Fund rule, which in combination provide for New Jersey's participation in RGGI).

[12] N.J. STAT. ANN. § 26:2C-39 (2019); *see also id.* § 26:2C-41 (prescribing features of greenhouse gas monitoring and reporting program).

mitigate emissions leakage[13] and assigns BPU the task of adopting measures that do so.[14] As a result, New Jersey's toolkit of clean energy policies must abide by market rules dictated by PJM—the organization that manages the wholesale electricity markets in which New Jersey participates—while also avoiding or at least mitigating leakage.[15] The risk of leakage and obligation to address it add complexity to the decision that BPU faces.[16]

PJM's Capacity Market. FERC requires load serving entities (LSEs)—a category that encompasses New Jersey's Electricity Distribution Companies (EDCs) and third-party electricity suppliers—to secure capacity sufficient to meet peak annual load plus a further amount called the Installed Reserve Margin (IRM).[17] To streamline the process of procuring capacity, PJM implemented a mandatory, centralized capacity market, called the Reliability Pricing Model (RPM), through which nearly all LSEs secure capacity. RPM is run as a uniform-price auction in which the aggregate capacity requirement of the region is represented by an administratively derived Variable Resource Requirement (VRR) Curve.[18] The ensuing capacity payments are covered by LSEs in proportion to their share of demand for capacity.

FRR Under PJM's Tariff. As an alternative to the capacity market, the PJM Tariff allows LSEs to satisfy capacity requirements through an FRR option. An LSE might elect that option or be directed by state law to do so, either individually or as part of a "State-Wide FRR Program."[19]

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[13] *Id.* § 48:3-87(c)(2).

[14] *Id.* The RGGI Law also provided that the leakage mitigation impacts of energy efficiency regulations would not count toward compliance with the GWRA's leakage mitigation mandate unless the New Jersey Attorney General or a designee determined that the primary proposed leakage mitigation mechanism would unconstitutionally burden interstate commerce or be subject to federal preemption.

[15] In 2009, after New Jersey began participating in RGGI, BPU stated that it had satisfied its statutory leakage mitigation requirement by, among other things, designing a renewable portfolio standard that prioritized solar installations connected to distribution grids that serve New Jersey customers and also initiating plans to develop offshore wind resources along the New Jersey coastline. Order, In the Matter of a Green House Gas Emission Portfolio Standard and Other Regulatory Mechanisms to Mitigate Leakage, BPU Docket No. EO08030150, at 3 (May 4, 2009), *codified at* N.J. ADMIN. CODE § 14:4-8. Now that New Jersey has resumed its participation in RGGI, CO_2 Budget Trading Program, 51 N.J. Reg. 992(a) & 1043(a) (July 17, 2019), *codified at* N.J. ADMIN. CODE §§ 7:27-22.1 & 22.16, 7:27A-3.2, 3.5, & 3.10; 7:27-2.28 & 7:27C, BPU is examining anew whether leakage mitigation is necessary and, if so, how best to implement it. BPU, Stakeholder Notice: New Jersey Regional Greenhouse Gas Initiative (RGGI) Emissions Leakage Study (Nov. 27, 2019), https://www.state.nj.us/bpu/pdf/publicnotice/RGGI%20leakage%20stakeholder%20notice.pdf (announcing proceeding to assess leakage arising from RGGI participation and options for addressing it).

[16] As New Jersey's 2019 Energy Master Plan observes, leakage "complicates New Jersey's efforts to establish a clean energy future and reduce emissions." NEW JERSEY, 2019 ENERGY MASTER PLAN, *supra* note 3, at 108–09. That complication arises largely from New Jersey's reliance on PJM's wholesale markets combined with the fact that many of the generation resources located in PJM's service territory are coal- or gas-fired and not subject to greenhouse gas emissions limits or pricing.

[17] PJM specifies the required margin, which changes annually. PJM MANUAL 20: PJM RESOURCE ADEQUACY ANALYSIS 15 (2019) (describing derivation of Installed Reserve Margin).

[18] *See* SAMUEL A. NEWELL ET AL., BRATTLE GRP., FOURTH REVIEW OF PJM'S VARIABLE RESOURCE REQUIREMENT CURVE, 15–16 (2018).

[19] *See* PJM RAA, Schedule 8.1.I (Sept. 17, 2010) [hereinafter "PJM RAA"] ("Each LSE subject to such state action shall become a Party to this Agreement and shall be deemed to have elected the FRR Alternative.").

An LSE pursuing this option must procure the required capacity outside of PJM's capacity market and submit to PJM a "Capacity Plan" in which it identifies the resources from which it has secured capacity.[20] In such a case, the LSE's capacity requirements are not incorporated into the construction of the VRR Curve. And the LSE need only satisfy the PJM-wide Installed Reserve Margin (IRM),[21] which is currently approximately 15% above its annual coincident peak load.[22] The LSE also does not contribute to capacity payments associated with RPM auctions.

FRR was established at the suggestion of a vertically integrated utility,[23] and has been used only by vertically integrated utilities.[24] But PJM's Tariff also allows FRR to be employed by LSEs in states like New Jersey where deregulation has made generation and retail electricity services competitive.[25]

Opting for FRR would mean meeting several requirements. First, BPU would have to order LSEs to satisfy their resource adequacy obligations through FRR—an order that would either rely on existing statutory language or new legislation.[26] LSEs would then be subject to the following requirements:

[20] *See id.*, Schedule 8.1.C-1 and 8.1.D.

[21] *See id.*, Schedule 8.1.F-1 for the Daily Unforced Capacity Obligation of an FRR Entity. Note that the Forecast Pool Requirement defined in Schedule 4.1.A is based on the IRM and on an unforced capacity basis: FPR = (1 + IRM/100) * (1- Pool-wide average EFORD/100).

[22] PATRICIO ROCHA GARRIDO, PJM INTERCONNECTION, 2019 RESERVE REQUIREMENT STUDY (RRS) RESULTS 3 (2019), https://www.pjm.com/-/media/committees-groups/committees/mrc/20191031/20191031-cad-1-2019-rrs-results-presentation.ashx (recommending IRM of about 15% for Delivery Years 2020/21 through 2023/24).

[23] PJM Interconnection, L.L.C., 115 FERC ¶ 61,079 (2006) ("In response to AEP's suggestion, PJM included in the August 31st Filing draft business rules that could implement an alternative to RPM under which an LSE could provide its own long-term fixed resource requirement."); *see also* N.J. Bd. of Pub. Utils. v. FERC, 744 F.3d 74, 84 (3d Cir. 2014) ("[P]articipating in the FRR option is an all-or-nothing proposition, and appeals as a practical matter only to large utilities that still follow the traditional, vertically integrated model.").

[24] For a list of FRR Capacity Plans filed with PJM, see PJM, *FRR – LSE Capacity Rates*, https://www.pjm.com/markets-and-operations/billing-settlements-and-credit/frr-lse-capacity-rates.aspx (accessed May 9, 2020).

[25] *See* PJM RAA, Schedule 8.1.D-8 ("In a state regulatory jurisdiction that has implemented retail choice, the FRR Entity must include in its FRR Capacity Plan all load, including expected load growth, in the FRR Service Area, notwithstanding the loss of any such load to or among alternative retail LSEs..").

[26] For New Jersey LSEs to meet their capacity obligations using FRR starting with Delivery Year 2022/2023, PJM has indicated that the regulation or legislation directing them to do so must be adopted by June 1, 2020. Compliance Filing Concerning the Minimum Offer Price Rule, Request for Waiver of RPM Auction Deadlines, and Request for an Extended Comment Period of at Least 35 Days, Calpine Corp. v. PJM Interconnection, L.L.C., Docket Nos. EL16-49, ER18-1314, EL18-178, at 86 (Mar. 18, 2020) [hereinafter "PJM Compliance Filing"]. However, that date is almost certain to be moved back in the Supplemental Compliance Filing requested of PJM by FERC in its April 16, 2020 Order on Rehearing and Clarification because that filing's deadline is itself June 1, 2020. 171 FERC ¶ 61,035, P 197 (2020).

- Notify PJM about the choice of FRR four months before the next Base Residual Auction for the capacity market takes place;[27]
- Meet the eligibility requirements specified in PJM's Reliability Assurance Agreement, including but not limited to securing unforced capacity at least equal to the Forecast Pool Requirement for the LSE's designated FRR Service Area;[28] and
- Submit an FRR Capacity Plan to PJM and update it annually.

The minimum period for which an LSE might opt for FRR instead of PJM's capacity market, is five (consecutive) years.[29]

FERC's December 19, 2019 Order.[30] In December 2019 FERC issued an order that directs PJM to mitigate the capacity market impacts of "out-of-market payments provided, or required to be provided, by states to support the entry or continued operation of preferred generation resources."[31] In April, FERC issued two further orders, each responding to requests for rehearing of orders relating to the one issued in December;[32] those subsequent orders rejected requests to reconsider the December 2019 Order. Pursuant to these orders, PJM will subject to a Minimum Offer Price Rule (MOPR) some resource types that receive support from New Jersey pursuant to the state's clean energy agenda. The MOPR forces resources to bid into PJM's capacity market at prices higher than a specified threshold. For some resources in New Jersey receiving state support, this requirement will mean not clearing PJM's capacity market.

It is important to note that while FERC's order may in the future be vacated by a court or reversed by FERC itself,[33] the timing of such a step would depend heavily on the outcome of litigation over the order's legal validity and/or the 2020 election, which could lead to a change in the composition of the Commission. A successful challenge to the order in federal court—potentially involving a stay—could, in theory, lead to the order's amendment or rescission as early as 2021, making it easier for a different Commission to change course. But it is more likely that it would take longer to roll back the order in a way that restored access to revenues from PJM's capacity market for all state-supported resources in New Jersey.

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[27] PJM RAA, Schedule 8.1.C-1.

[28] *See id.*, Schedule 8.1.F-1.

[29] An LSE may terminate its FRR election early if the state undertakes a State Regulatory Structure Change. *Id.* art. 1. Whether the LSE terminates early or after five consecutive years, it may not elect FRR once again after termination for a period of five years. *Id.*

[30] Calpine Corp. v. PJM Interconnection, L.L.C., 169 FERC ¶ 61,239 (2019).

[31] *Id.* at P 1.

[32] Orders on Rehearing and Clarification, Calpine Corp. v. PJM Interconnection, L.L.C., 171 FERC ¶¶ 61,034, 61,035 (2020).

[33] FERC's April Orders on Rehearing and Clarification eliminated the possibility that the December 2019 Order could be withdrawn and made the contents of that Order ripe for review by a court.

PJM's March 18, 2020 Compliance Filing. In response to FERC's December 2019 Order, PJM submitted an extensive Compliance Filing Concerning the Minimum Offer Price Rule.[34] Although FERC has ordered PJM to submit a Supplemental Compliance Filing, at present it appears that the supplemental filing will build on rather than revising the initial one. Several key points to note from the initial filing are:

- PJM plans to conduct four capacity auctions over a 26-month period; it will announce the date of the first of those auctions on the later of June 15, 2020 or within two weeks of FERC's approval of its compliance filing. PJM indicates that it could conduct the first auction (for Delivery Year 2022/23) as early as December 2020, depending on whether FERC approves its filing and on whether one or more PJM member states adopt rules or legislation requiring their LSEs to opt for FRR.[35]
- PJM's proposed definition of "State Subsidy" does not encompass fees paid by generators as a result of states' participation in RGGI.[36] (FERC, in its April 16, 2020 Order on Rehearing and Clarification, stated that the December 2019 Order does not categorize those fees as a "State Subsidy."[37])
- The proposed default bid price thresholds for new nuclear and most types of renewable resources are set at high levels that will substantially restrict those resources' ability to clear (i.e., receive revenues from) the capacity market.[38]
- PJM's proposed default bid price thresholds for existing resources are much lower than for new resources—low enough that existing resources will be less affected by the MOPR. In particular, for existing nuclear facilities, the MOPR would have no effects as the relevant proposed bid floors are close to zero. Existing intermittent renewables and batteries are exempted from the MOPR.[39]
- PJM also proposes allowing resources to seek unit-specific review, which would assign a minimum bid price to a resource based on its actual cost structure rather than the default for that category of resource.[40] Unit-specific review will likely enable clearance for many new state-subsidized resources that would not clear if they bid using a default price. However, even with unit-specific review, offshore wind will probably not be able to

[34] *See* PJM Compliance Filing, *supra* note 26.

[35] *Id.* at 84, 86–87.

[36] *Id.* at 13–15. This does not mean that benefiting from RGGI is grounds for exclusion from the MOPR; resources that benefit from RGGI and also receive benefits through some other state-level program can be subject to the MOPR.

[37] Order on Rehearing and Clarification, 171 FERC ¶ 61,035, at P 390 (2020) ("RGGI is not considered a State Subsidy").

[38] *See* PJM Compliance Filing at 64, tbl.1 (listing proposed default MOPR values for new entrants).

[39] *Id.* at 32–34, 40–42 and 66–72.

[40] *Id.* at 72–79.

secure capacity market revenue.[41] (Notably, based on the tentative schedule for PJM's capacity auctions, assuming New Jersey's planned offshore wind deployment stays on schedule, those resources' earliest possible opportunity to bid into a capacity auction would be in the second quarter of 2021, so these resources might feel limited adverse effects if the order imposing MOPR is rescinded quickly.[42])

2. Policy Integrity's Integrated Analysis

In this section, Policy Integrity analyzes issues related to BPU's resource adequacy decision from a broad perspective of social welfare and economic efficiency. We begin by identifying important sources of uncertainty, then consider the effects of opting for FRR versus RPM on allocative efficiency in the electricity sector, which encompasses, among other things, effects on electricity rates, customer bills, and emissions.

Notably, FRR-based planning is understood here not as a single, well-defined alternative to PJM's capacity market, but as a range of potential design choices. For instance, opting for FRR could involve each LSE in New Jersey securing capacity and devising an FRR Capacity Plan on its own. Or it could involve the establishment of a state-wide approach through which a New Jersey capacity market mediates the allocation of resources ultimately reflected either in each LSE's FRR Capacity Plan or in a jointly submitted state-wide FRR Capacity Plan.

New Jersey is deciding whether to opt for FRR instead of continuing to rely on PJM's capacity market at the same time as it formulates emissions reduction and clean energy deployment policies to achieve objectives mandated by New Jersey statutes.[43] As BPU's March 27, 2020 Order says—echoing New Jersey's Energy Master Plan—FERC's December 2019 Order "potentially disrupts a number of New Jersey's efforts to shape its electric generation resource base."[44] Consistent with this, the questions posed by BPU recognize that a decision about the capacity market will affect the efficiency and effectiveness of the state's policy decisions, such as whether New Jersey should rely more heavily on carbon prices imposed on polluters or subsides paid to developers and owners of clean resources. Consequently, the discussion below notes also the interaction of opting for FRR with subsidy programs and carbon pricing. As explained below, a carbon price higher than the one New Jersey has currently imposed as a

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[41] *See* Heather Richards & Arianna Skibell, *FERC Order Could Bar Offshore Wind from U.S. Power Market*, E&E NEWS, May 13, 2020 (noting expected impact of MOPR on offshore wind).

[42] *Compare* PJM Compliance Filing at 86–87 (indicating auction schedule), *with* Press Release, N.J. Governor Murphy, Governor Murphy Announces Offshore Wind Solicitation Schedule of 7,500 MW through 2035 (Feb. 28, 2020), https://www.nj.gov/governor/news/news/562020/20200228a.shtml (indicating 2024 is target for operation of first offshore wind farm).

[43] *See, e.g.*, N.J. Dep't of Envtl. Prot., "Reducing CO2 Emissions," Presentation to NJ Protecting Against Climate Threats (PACT) Workshop (Feb. 25, 2020) (seeking comments on short and long-term strategies to address electricity sector greenhouse gas emissions).

[44] BPU Order, *supra* note 2, at 2; NEW JERSEY, 2019 ENERGY MASTER PLAN, *supra* note 3, at 108 ("[T]he December 19, 2019 decision by FERC could effectively bar clean energy resources receiving state financial support from providing reliability services.").

participant in RGGI could mitigate the effects expanded MOPR in a way that protects New Jersey's clean energy agenda and decreases the costs to ratepayers of pursuing it.

2.1. Uncertainties

Several features of New Jersey's situation make the effects of opting for FRR especially uncertain. Three are described here. The first is the possibility of the orders that have expanded MOPR being reversed in less than five years' time, whether as a result of remand by a court or rollback or amendment by FERC.[45] Second is the institutional capacity of New Jersey agencies and utilities to handle what FRR would require in a compressed timeframe and alongside other sizeable tasks. And third is the uncertainty around the leakage component of emissions pricing that will be determined largely by actions on the part of Pennsylvania and PJM. Each of these is explained in turn here.

2.1.1. The MOPR orders could be reversed, possibly in less than five years' time

New Jersey is considering FRR as a way to avoid the effects of MOPR. Opting for FRR would commit New Jersey's LSEs to that mechanism for at least five years,[46] or until the state adopts what the PJM tariff calls a State Regulatory Structural Change.[47] At the same time, a reversal of the order to expand MOPR, whether by a federal court decision or a new FERC order, remains a viable possibility.

- Judicial reversal. The multiple petitions that have sought judicial review of the MOPR orders have been consolidated and will be heard by the Court of Appeals for the Seventh Circuit;[48] Commissioner Glick's dissent from those orders is robust and identifies several potential bases for a judicial reversal.[49] The earliest the court is likely to hear oral argument in the case is late in 2020, and the court would probably not issue a decision on

[45] *Cf.* Rich Heidorn Jr. & Michael Brooks, *PJM Seeks to Quell 'Inflammatory' Exit Talks*, RTO INSIDER (Feb. 12, 2020) (reporting that PJM's Executive Director told conference attendees that the expanded MOPR is not workable in the long term because it "needlessly frustrates state policy initiatives").

[46] PJM RAA, Schedule 8.1.C.

[47] *Id.* art. 1, at 21 (defining change as one that is prompted by legislation, regulation, or a commission order, and that initiates, terminates, or materially increases or reduces the number of customers participating in a competitive retail electricity program).

[48] *See, e.g.*, Petition for Review, Am. Pub. Power Ass'n v. FERC, Case No. 20-1129 (D.C. Cir. Apr. 22, 2020); Petition for Review of FERC Orders, Ill. Commerce Comm'n v. FERC, Case 20-1645 (7th Cir. Apr. 20, 2020). Several other parties filed petitions for review in advance of FERC's Order on Rehearing. *See, e.g.*, Petition for Review and Request that Petition Be Held in Abeyance, N.J. Div. of Rate Counsel v. FERC, Case No. 20-1059 (D.C. Cir. Feb. 28, 2020). The U.S. Judicial Panel on Multidistrict Litigation has consolidated these appeals and assigned the case to the Seventh Circuit in Chicago. Consolidation Order, In re: Federal Energy Regulatory Commission, Orders on Rehearing and Clarification, Calpine Corp. v. PJM Interconnection, LLC, 171 FERC 61,034 and 61,035 on April 16, 2020, MCP No. 160, Case 07/1:20-ca-01645 (J.P.M.L. May 5, 2020).

[49] Commissioner Glick wrote a single dissent for both orders. Calpine Corp. v. PJM Interconnection, L.L.C., 171 FERC ¶ 61,034, 2020 WL 1896778, at *31 (Apr. 16, 2020) (Glick, Comm'r, dissenting); Calpine Corp., 171 FERC ¶ 61035, 2020 WL 1896779, at *111 (Apr. 16, 2020) (Glick, Comm'r, dissenting) [hereinafter "Glick Dissent"].

the merits before February of 2021. It could, however, issue a stay before then, and eventually decide to vacate or remand the stayed order.

- Reversal under a different FERC majority. If the election replaces the current presidential administration and FERC gets a new Chair and different majority, then FERC could expect—or itself develop—a 206 filing aimed at rolling back the order to expand MOPR. Such a filing would need to be supported by an evidentiary record that justified both overturning the prior order and adopting a different approach to PJM's capacity market. Completing these steps would probably require at least two years from the appointment of a new FERC Chair, which is unlikely to occur before February 2021. An order based on that filing would almost certainly be litigated, which could add another 18 months or more to the time before reversal.

These are not the only possible timelines for the MOPR order's future, of course, but they illustrate that reversal is possible after fewer than the five years required by PJM's tariff for FRR compliance.

Given that opting for FRR *and* undoing that option could both involve significant, costly, and disruptive changes to New Jersey's electricity marketplace, BPU should weigh the potential costs of opting for *and* exiting FRR against those of living with the expanded MOPR. Notably, according to current plans, offshore wind facilities are expected to first be operational and receive revenues in 2024,[50] which means that, according to PJM's tentative schedule their earliest possible opportunity to bid into a PJM capacity auction would be the second quarter of 2021.[51]

2.1.2. FRR implementation would require significant institutional capacity

As noted above, FRR could take a variety of forms. One might involve LSEs securing capacity through bilateral transactions. Another might involve a state-devised, centralized capacity market through which LSEs could secure capacity with fewer and lower search and transaction costs. Or New Jersey could establish a residual capacity market to allocate whatever capacity LSEs still needed to meet their IRM after completing available bilateral transactions. Any of these would involve, at a minimum, new functions, and possibly wholly new institutions. A lack of institutional capacity on the part of one or more of the entities responsible for identifying, negotiating for, securing, and documenting adequate resource capacity in the timeframe required could be the cause of significant and costly problems. Furthermore, providing for such institutional capacity will require a commitment of resources to whatever agency is charged with administration and oversight duties similar to those currently carried out by PJM.

[50] Press Release, Governor Murphy Announces Offshore Wind Solicitation Schedule of 7,500 MW through 2035 (Feb. 28, 2020), https://www.nj.gov/governor/news/news/562020/20200228a.shtml.

[51] *See* PJM Compliance Filing, *supra* note 26, at 86–87.

2.1.3. Key determinants of leakage are beyond New Jersey's control

The magnitude of leakage that New Jersey will face is currently uncertain. At the same time, leakage potential is important for New Jersey's decision about adoption of additional emissions pricing measures—a decision that affects also the merits of FRR. In general, the more New Jersey relies on carbon pricing to achieve its climate-related energy goals, the less attractive the FRR option tends to be.[52]

Leakage will depend on at least three types of actions that are beyond BPU's control:

- First: FERC's decision to treat a New Jersey emissions pricing program like RGGI and deem it not a "State Subsidy" that subjects benefiting resources to MOPR.[53] Commissioner Glick's dissent from the MOPR orders highlight the lack of a clear principle regarding treatment of emissions prices as distinct from subsidies,[54] an absence that makes it difficult to predict with certainty how a new statewide or electricity-sector-specific emissions pricing program would be interpreted under the expanded MOPR.
- Second: Virginia and Pennsylvania's decisions to join RGGI. Virginia is slated to begin participating in RGGI in 2021,[55] and Pennsylvania—the source of electricity sector greenhouse gas emissions equal to the rest of RGGI (not including Virginia) combined[56]—is moving ahead with plans to participate in RGGI beginning in 2022.[57]

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[52] A higher carbon price will automatically lower payments for ZECs and the various RECs available in New Jersey. *See* SAMUEL A. NEWELL ET AL., BRATTLE GRP., PRICING CARBON INTO NYISO'S WHOLESALE ENERGY MARKET TO SUPPORT NEW YORK'S DECARBONIZATION GOALS 38–39 (2017) (describing similar expected effect in New York context should a wholesale carbon price be adopted). Under the assumption that FERC does not decide to interpret carbon pricing as a state subsidy, carbon pricing would decrease the impact that MOPR has on the resources supported by the state, reducing the benefits of opting for FRR.

[53] *See* Order on Rehearing and Clarification, *supra* note 37, at P 390.

[54] Glick Dissent, *supra* note 49, at 2020 WL 1896778, at *49 ("The Commission's single-sentence clarification regarding RGGI is a little light on reasoning, but the upshot appears to be that RGGI does not cause problems . . . because it addresses the externality of climate change by raising prices, rather than by lowering them. At no point, however, does the Commission explain why a state effort to tax the harm associated with a market failure is consistent with capacity markets, but a state effort to address the same harm by subsidizing resources that do not contribute to that externality is inconsistent with capacity markets.").

[55] Virginia Clean Economy Act, 2020 Va. Laws c.1193 (authorizing participation in RGGI); *see also* Sarah Vogelsong, *Virginia Lawmakers Agreed to Join a Regional Carbon Market. Here's What Happens Next*, VIRGINIA MERCURY, Apr. 14, 2020 (describing process involved in adopting regulations required for Virginia generators to begin purchasing RGGI allowances).

[56] Jared Anderson, *Joining RGGI to Boost Pennsylvania Gas-, Coal-fired Power Prices, Double Emissions Traded*, S&P GLOBAL PLATTS, Oct. 4, 2019, https://www.spglobal.com/platts/en/market-insights/latest-news/coal/100419-joining-rggi-to-boost-pennsylvania-gas-coal-fired-power-prices-double-emissions-traded.

[57] Commonwealth Leadership in Addressing Climate Change through Electric Sector Emissions Reductions, Pa. Exec. Order 2019-07, 4 PA. CODE ch. 7a (Oct. 3, 2019) (directing Pennsylvania Department of Environmental Conservation to adopt regulations for RGGI participation); *see also* Mark Szybist, *What's Next for Pennsylvania and RGGI*, NRDC (blog), Apr. 15, 2020, https://perma.cc/7KDB-AKE7 (reporting that DEC remains on pace to complete draft regulation by July 2020 deadline and describing draft's content and procedural status); Laura Legere, *First draft of Pa. Carbon-cutting Rules Aims to Save Waste Coal Plants*, PITTSBURGH POST-GAZETTE, Feb. 14, 2020.

The participation of those states in RGGI would substantially decrease the potential for leakage associated with New Jersey's RGGI participation, and presumably also with any additional emissions pricing policy adopted by New Jersey.

- Third: PJM's actions on carbon border adjustments. PJM is considering adoption of an intra-RTO border adjustment mechanism that would mediate between states with and without carbon pricing policies, thereby reducing carbon leakage.[58] The design details of the adjustment mechanism, especially its treatment of a situation where New Jersey has a carbon price different from that chosen by other carbon-pricing states, would be decisive for how much carbon leakage from New Jersey could be avoided.

Should any of these possibilities materialize—that is, should FERC treat New Jersey-specific emissions pricing as exempt from MOPR, or Pennsylvania and Virginia join RGGI as currently planned, or PJM implement an intra-RTO border adjustment mechanism—the concern for carbon pricing being undermined by leakage would be at least somewhat alleviated. Consequently, New Jersey could rely more heavily on carbon pricing in the pursuit of its goals—a move that Policy Integrity would strongly support.

2.2. Features and Outcomes to Consider When Evaluating FRR

New Jersey's approach to resource adequacy will have significant implications for the economic efficiency of its electricity sector's operation. Below we describe several things that BPU should consider: search and transaction costs, market power, price signal transparency, capacity price levels, energy price levels, electricity bill impacts, and emission levels.

2.2.1. Search and transaction costs, efficiency of matching

For LSEs, opting for FRR will mean procuring capacity outside of PJM's RPM to meet the required IRM each year. New Jersey can structure procurement under FRR to be more or less centralized; options range from each LSE negotiating and signing bilateral capacity contracts with power plants (similar to the resource adequacy approach taken in CAISO) to operating a centralized New Jersey capacity market in parallel to the RPM, but on a smaller scale.[59] This design choice will affect the search and transaction costs that LSEs and generators face. Market design will also affect matching efficiency—that is, the ability to match LSEs with the generators that can provide capacity at the least (social) cost.

In general, greater centralization of capacity will result in lower search and transaction costs and greater matching efficiency as markets provide a better coordination mechanism than bilateral

[58] Memorandum, PJM, Carbon Pricing Senior Task Force, Issue Charge 2 (July 26, 2019) (describing "Stage 2" as "Develop a Common Set of Rules to Implement Carbon Pricing & Manage Leakage Where Appropriate" and anticipating completion within 18 months of task force launch).

[59] The Reliability Assurance Agreement provisions that authorize use of FRR to satisfy capacity obligations leave a great deal of flexibility to FRR Entities and the state authorities that can direct them. *See, e.g.*, PJM RAA, Schedule §§ 8.1.B (Eligibility), 8.1.D.8 (FRR Capacity Plan; recognizing availability of FRR in restructured jurisdictions), 8.1.I (State-wide Capacity Plan Savings Clause).

negotiations do.[60] Even if the FRR approach adopted in New Jersey were as centralized as possible, however, the resulting search and transaction costs are still bound to be higher than those arising from participation in PJM's RPM.

2.2.2. Market power considerations

Market power, whether on the demand or supply side, distorts allocations and decreases efficiency.[61] PJM and its Market Monitor devote significant resources to following market outcomes and improving market design with the goal of preventing exertions of market power. Each of PJM's Locational Deliverability Areas (LDAs), subareas of PJM's service territory for which separate capacity demand curves are constructed, is separately monitored for signals of anti-competitive behavior. Despite those efforts, structural market power seems to be endemic to PJM's capacity market. According to the Market Monitor's 2019 State of the Market report, "[f]or almost every auction held, all LDAs have failed the ["three pivotal supplier"] test,"[62] which is a test PJM and its Market Monitor use to assess whether generators can exert market power.[63] The uncompetitive nature of PJM's capacity market means that the efficiency of capacity market outcomes depends on PJM's application of market power mitigation rules.[64]

Due to the physical constraints of the state's geography and electric grid, the potential for generators to exert market power in New Jersey is particularly high. Because the FRR option is vulnerable to market power distortions, should New Jersey opt for FRR, it would need to develop and apply market power mitigation solutions like those that PJM applies to its RPM. This would in turn require substantial institutional capacity and knowledge.

Market power risks would arise on both the supply and demand sides in an FRR scenario.[65] An important factor for the supply side would be how much of the generation that serves New Jersey

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[60] *See* Jason Allen, Robert Clark & Jean-Francois Houde, *Search Frictions and Market Power in Negotiated-Price Markets*, 127 J. POL. ECON 1550 (2019) (characterizing search friction costs in negotiated-price markets); Maarten Jansen & José Luis Moraga-González, *Strategic Pricing, Consumer Search and the Number of Firms*, 71 REV. ECON. STUDIES 1089 (2004) (describing effects on expected prices and welfare of an increase in the number of firms). *See also* Steve Cicala, *Imperfect Markets Versus Imperfect Regulation in US Electricity Generation* (Univ. of Chicago Working Paper, 2019) (showing market-based dispatch reduces cost and increases trade relative to bilateral contracts); Erin T. Mansur & Matthew White, *Market Organization and Efficiency in Electricity Markets* (Yale School of Mgmt. Working Paper, 2009).

[61] *See* Timothy J. Brennan, *Energy Efficiency and Renewable Policies: Promoting Efficiency or Facilitating Monopsony*? 39 ENERGY POL'Y 3954 (2011) (describing inefficiencies of monopsony market power); DARRYL R. BIGGAR & MOHAMMAD REZA HESAMZADEH, THE ECONOMICS OF ELECTRICITY MARKETS, 301–03 (2014) (describing consequences of supply side market power).

[62] The "three pivotal supplier" test measures the degree to which the supply from three suppliers is required in order to meet the demand in the relevant market. Joe Bowring & Siva Josyula, Monitoring Analytics, *Overview of Three Pivotal Supplier Test* 3, July 22, 2015, https://www.pjm.com/-/media/committees-groups/task-forces/gofstf/20150722/20150722-item-02-imm-tps-education.ashx.

[63] MONITORING ANALYTICS, LLC (PJM MARKET MONITOR), QUARTERLY STATE OF THE MARKET REPORT FOR PJM—JANUARY THROUGH JUNE 8 (2019).

[64] *Id.* at 8–9.

[65] Affiliate relations between capacity buyers and sellers have the potential to alleviate some of the market power concerns. *See* Erin T. Mansur, *Upstream Competition and Vertical Integration in Electricity Markets*, 50 J. L. &

loads will be required by PJM's tariff to be located within the state's borders. There is also a non-trivial possibility that the biggest retail utilities, such as PSE&G with its 2 million customers, could exert buyer-side market power given their close-to-monopsony position vis-à-vis resources subject to high MOPR floors.[66] This is especially plausible should FRR be implemented using bilateral contracts. Importantly, while market power on the demand side might decrease consumer bills in the short term, in the long term it could be as damaging as sellers' market power because it could decrease incentives to build new generation.

In general, the more numerous the participants on both sides of a market and thus the smaller the market shares of individual participants, the more competitive the outcome. For this reason, inefficiencies resulting from market power are likely to trouble an FRR construct more than they currently trouble PJM's capacity market. In addition, generation that commits to New Jersey's FRR market will not bid into the RPM, potentially decreasing the competitiveness of the outcomes there as well.

If New Jersey plans to conduct an in-state centralized capacity procurement as part of a state-wide FRR program, it should first study carefully the experiences of regulated utilities, such as Southern Company, and of RTOs, especially CAISO, with market power in the context of resource adequacy.[67] The optimal set of market power mitigation policies will depend on the choice of FRR design. For instance, New Jersey should define each LSE's capacity requirements using a capacity demand curve instead of a fixed amount of capacity because a demand curve can help to restrict the market power of suppliers.[68]

2.2.3. Transparency and price signals

Observable capacity prices send signals to investors and guide new investments and retirements. Should FRR be implemented through bilateral capacity contracts with no required disclosure of transaction prices, transparency and its associated benefits will be lost. Notably, price disclosure alone might not yield sufficient transparency: even if prices are disclosed, differences in contract terms may undermine the usefulness of comparing reported prices to one another. Monitoring the market power of large suppliers will also tend to be more difficult if transactions are made using bilateral negotiations with non-public prices and complex contract terms.

ECON. 125 (2007) (presenting empirical analysis of incentives to exert market power in PJM's energy market depending on the grade of vertical integration).

[66] Such resources would have weak negotiating position since, if they fail to secure an FRR contract, they would not receive any capacity revenue. Resources not affected by MOPR, on the other hand, would have a stronger negotiating position due to the outside option they would enjoy of clearing the PJM's capacity market.

[67] *See, e.g.*, SUSAN F. TIERNEY, ANALYSIS GRP., RESOURCE ADEQUACY AND WHOLESALE MARKET STRUCTURE FOR A FUTURE LOW-CARBON POWER SYSTEM IN CALIFORNIA 10–11, 18–19 (2018); HUNG-PO CHAO & ROBERT WILSON, ELECTRIC POWER RES. INST., RESOURCE ADEQUACY AND MARKET POWER MITIGATION VIA OPTION CONTRACTS (2005).

[68] KATHLEEN SPEES ET AL., BRATTLE GRP., ALBERTA'S CAPACITY MARKET DEMAND CURVE 1 (2019) ("The steepness of the demand curve affects price volatility and has implications for limiting opportunities for the exercise of market power.").

New Jersey can employ tools to enhance transparency even if it relies on bilateral contracts for FRR, however. For instance, Western Systems Power Pool's use of a standardized power sales agreement and reporting of contract prices through several indices creates usefully comparable price information and facilitates market operation.[69]

2.2.4. Capacity prices

The choice of resource adequacy approach will influence the cost that New Jersey's LSEs face for capacity procurement through various mechanisms. The mechanisms with first-order effects relate here to differences in prices per unit of capacity that are bound to occur under different resource adequacy approaches, and the differences in amount of capacity procured. The secondary mechanism encompasses changes in resource composition.

The procurement of capacity under FRR needs to take place months in advance of the RPM capacity auction. Nevertheless, the (expected) capacity auction price will constitute a reference point for FRR price formation. This happens because generators that are not subject to MOPR as well as generators subject to sufficiently low MOPR will know that their outside option for signing the FRR contracts is clearing the PJM's capacity market. Consequently, those generators will accept lower payments for their capacity than the expected RPM capacity price only to the extent that the FRR contract provides them with less risk.[70]

For the resources that expect not to clear PJM's capacity market, RPM prices are irrelevant. Those resources' bids will reflect only the opportunity cost of committing capacity. Consequently, if New Jersey does not have a uniform price for a unit of capacity (for instance, because it directs or allows LSEs to contract with bilateral capacity agreements) it is probable that some of the capacity will be procured below the expected capacity auction price.[71] With uniform pricing one can expect the unit cost capacity to be above the RPM price. As described above, the prices will also depend on market power, both on the capacity supply and demand side.

The current design of PJM's VRR curve results in systematic over-procurement of capacity, leading in turn to capacity margins that exceed the IRM substantially.[72] Consequently, unless the VRR curve undergoes substantial modifications, the FRR approach will procure less capacity, pressing total capacity payments down. Given the extremely high reserve margins procured

[69] AM. PUB. POWER ASS'N, ISSUE BRIEF: WHOLESALE ELECTRICITY MARKETS AND REGIONAL TRANSMISSION ORGANIZATIONS 1 (2017).

[70] PJM's capacity markets are annual while an FRR contract could be signed for multiple years, giving generators more revenue certainty.

[71] *See* Helmut Bester, *Bargaining, Search Costs and Equilibrium Price Distributions*, 55 REV. ECON. STUDIES 201 (1988) (describing theoretical underpinnings of price dispersion under negotiated contracts).

[72] PJM Interconnection, L.L.C., 171 FERC ¶ 61,040, 2020 WL 1896776, at *10 (2020) (Glick, Comm'r dissenting) ("For many years now, the PJM capacity market has procured too much capacity at too high a price.").

through the RPM, the effect of over-procurement might outweigh the additional costs associated with higher prices per unit of capacity.

The design details of FRR, such as length of capacity contracts, treatment of seasonally variable generation resource capabilities, and non-performance penalties, among others, can affect the resource mix by changing exit and entry patterns relative to what would occur under ongoing RPM participation. That change would, in turn, affect the RPM's capacity supply curve, changing capacity clearing prices. Predicting the price direction of those changes would require detailed knowledge of the FRR design.

2.2.5. Energy and ancillary services prices

Changes to exit and entry patterns resulting from opting for FRR instead of RPM participation would also affect the energy market supply curve and the clearing prices in the energy market. An FRR scenario would likely involve more retirements of fossil-fueled resources, which would in turn push energy prices higher in some regions. On the other hand, energy prices could also be pushed lower by FRR sending a clearer signal about locational value to renewables developers than RECs and thereby causing renewables to be sited in places where they are socially more valuable, for instance in the same (congested) regions where fossil-fueled resources begin to retire. As these points illustrate, predicting the direction of the change in energy market prices would require detailed knowledge of the FRR design.

By inducing resources with differing profiles (e.g., capacity factors and levels of intermittency) to enter or retire, the FRR can also change the prices for ancillary services compared to MOPR markets. For instance, the price of frequency service will differ if one of the resource adequacy alternatives sends stronger signals for investments in solar generation as opposed to battery storage.

2.2.6. Bills paid by consumers

While there are many factors behind New Jersey consumers' electricity bills, two in particular—prices that LSEs pay for wholesale energy and capacity, and the cost of state energy policies[73]—will be directly affected by MOPR. The impact on the latter of these could be especially significant.

Up to now, nuclear and some renewable resources in New Jersey have received revenues from PJM's capacity market as well as from sales of clean energy certificates. But the MOPR order makes access to capacity market revenues uncertain—and, in the case of offshore wind, until costs fall significantly, impossible. That loss of capacity market revenue will need to be

[73] The costs of state policies are born by consumers partly in form of a per-kWh "Societal Benefits Charge" and in part through the element of each EDC's distribution system charge that reflects their purchases of various clean energy certificates. *See* BPU, *New Jersey's Clean Energy Program: Societal Benefits Charge*, https://www.njcleanenergy.com/societal-benefits-charge#Anchor-What-47857 (accessed Apr. 26, 2020).

compensated by increases in prices of various clean energy certificates to ensure that the clean resources remain economically feasible, which will in turn drive up policy costs.[74]

Should New Jersey opt for FRR, three resulting changes would likely reduce consumer bills, relative to the baseline scenario of continued participation in PJM's capacity market:

- *LSEs would face a lower capacity procurement requirement*. FRR compliance requires that capacity procurement equal or exceed IRM (roughly 15% above annual peak),[75] which is significantly lower than what PJM tends to procure using its VRR Demand Curve (resulting in roughly 22% above annual peak).[76]
- *LSEs could continue to procure capacity from all clean resources, including offshore wind, thus decreasing the costs of state policies.* FRR would allow capacity payments to potentially flow to all types of resources, including to those clean resources from which Electricity Distribution Companies and third-party electricity suppliers must purchase certificates but which under MOPR would effectively be deprived of capacity payments. The capacity payments to those resources would ensure that the direct costs of state policy measures are lower compared to under PJM's expanded MOPR.
- *LSEs would not need to pay for "excess" fossil-fuel capacity.* Under MOPR, LSEs would pay (through the capacity market) for fossil-fueled capacity while also paying (through state policy mechanisms) for clean capacity. They resulting level of resource capacity would far exceed what is required by New Jersey LSEs for reliability purposes. By allowing those LSEs to instead secure capacity from clean resources that they would need to support through state policy mechanisms anyway,[77] FRR would reduce LSEs'

[74] Different resources would make up for that loss differently. The price paid for Class I RECs and legacy SRECs are subject to market fluctuations and so will vary as a result of changes in the supply of renewable facilities relative to "demand" defined by statutory deployment targets; insofar as a loss of revenue from PJM's capacity market slows deployment, operational facilities will receive more money for each (S)REC. The price of an OREC could change based on the bids submitted by developers; seeing that capacity revenue will not be available in any scenario, offshore wind developers are likely to submit bids that are relatively higher than they would be without an expanded MOPR. TRECs, like ORECs, are for fixed amounts, and so are likely to vary based on a combination of developer bids and the relative supply of and demand for new facilities.

[75] *See supra* note 22.

[76] PJM 2021/2022 RPM Base Residual Auction Results. #5154776 https://www.pjm.com/-/media/markets-ops/rpm/rpm-auction-info/2021-2022/2021-2022-base-residual-auction-report.ashx. *See* Glick Dissent, *supra* note 49, at *41 ("[I]f there is a problem in PJM's capacity market, it is not that prices are too low, but rather that the market is designed to produce prices that are too high, over-procuring capacity and dulling the price signals in the energy and ancillary service markets."); PJM Interconnection, L.L.C., 171 FERC ¶ 61,040 (2020) (Glick, Comm'r dissenting) (discussing similar in more detail).

[77] MOPR effectively precludes some resource types from clearing the capacity market. Those resources types would, however, clear RPM in absence of MOPR and, therefore, would likely be procured under FRR.

spending obligations by allowing them to forgo procurement of "redundant" capacity from fossil-fueled resources in PJM.[78]

Consequently, whether consumers would see lower bills in an FRR scenario depends in part on whether savings from the three changes just described, adjusted by changes to energy and capacity prices, would exceed the inefficiencies introduced by the absence of a thick, centralized capacity market, and associated higher search and transaction costs, market power effects, and obscure price signals. Given that New Jersey's LSEs would be locked into FRR for at least five years, the bill impact of FRR might also change substantially over time.

This complex balance of potential savings and new costs is complicated further by New Jersey's parallel decision about what clean energy policy mechanisms to adopt in pursuit of emissions reduction and clean energy deployment goals.[79] Assuming the order to expand MOPR remains in place for the foreseeable future, New Jersey will have to either adopt a more aggressive program of emissions pricing or continue relying on clean energy certificates despite the likely rise in those certificates costs.[80] The total costs associated with those decisions will depend on many factors, some of them beyond New Jersey's control, as explained in section 2.1 above. No general predictions can therefore be made concerning the bill impacts of those decisions.[81]

2.2.7. Emissions

The emissions impacts of New Jersey opting for FRR are difficult to predict, both over the short term and the long term, because of the multiple channels through which FRR interacts with emissions as well as the myriad uncertainties involved.

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[78] As explained in previous sections, clean resources, even when they do not receive capacity payments, stay in the market as long as they are needed to meet Renewable Portfolio Standards. Any lack of capacity revenue for these resources is offset by increases in payments for clean energy certificates.

[79] *See* N.J. Dep't of Envtl. Prot. workshop presentation, *supra* note 43.

[80] As explained above, some of the resources that benefit from the certificates will lose capacity market revenue as a result of MOPR and that loss will automatically lead to higher certificate prices. On the other hand, carbon pricing in excess of RGGI's emissions allowance price, whether economy-wide or just focused on the electricity sector, would probably increase the energy market revenue flowing to clean resources. The revenue increase would in turn reduce the amount sought by those resources from payments for clean energy certificates. Indeed, a high enough carbon price would cause some clean energy certificate prices to fall (the carbon price required to obviate offshore wind resources' reliance on ORECs would still be high, however), and this in turn would make it possible for more renewable resources to clear PJM's capacity market even under the expanded MOPR order.

[81] Existing analyses of how FRR and MOPR will affect capacity prices and customer bills examine different geographic scopes and scenarios, begin from different assumptions, incorporate different factors, and so arrive at very different conclusions. *Compare* MONITORING ANALYTICS (INDEPENDENT MARKET MONITOR FOR PJM), POTENTIAL IMPACTS OF THE CREATION OF NEW JERSEY FRRS 4 tbl.1 (2020) (summarizing estimated costs to New Jersey LSEs and thus ratepayers), *with* ROB GRAMLICH & MICHAEL GOGGIN, GRID STRATEGIES LLC, A MOVING TARGET: UPDATE ON THE CONSUMER IMPACTS OF FERC INTERFERENCE WITH STATE POLICIES IN THE PJM REGION 11 tbl.4 (2020) (listing resources supported by New Jersey policies that are expected to be prevented from clearing PJM's capacity market as a result of expanded MOPR). The multiple differences underlying these analyses make the results difficult to compare. BPU needs to carefully pay attention to the particular setup of the studies, especially to the assumptions behind them, when deciding which numbers to use for its decision-making process.

While an FRR approach to resource adequacy could be a means by which the capacity values of clean resources supported by New Jersey receive full recognition, applying the FRR approach in itself is not a guarantee of emission reductions. For instance, under FRR, the emissions from gas-fired generators located in New Jersey might be largely unaffected if those units manage to clear PJM's capacity market.[82] In addition, simply installing clean resources within New Jersey's borders will not ensure that those resources' capacity displaces fossil-fueled resources.[83] Unless some regulatory or market signal steers clean resource installations, such resources could end up competing with hydro or nuclear and push those resources' capacity offerings out of the market, resulting in little or no reduction in emissions.

By contrast, while opting for FRR would not have clear emissions impacts within New Jersey, adopting a carbon price would. Carbon pricing is the most efficient way of dealing with pollution externalities.[84] By explicitly accounting for pollution damages of individual generation units, it incentivizes socially efficient usage of various types of power plants, without increasing energy consumption above efficient levels. A short comparison of effects of carbon pricing with effects of other clean policies is presented in Table 1 below. As the table shows, only carbon pricing can correct all four of the price distortions in markets with externalities. Other policies either fall short of correcting these distortions, or require a portfolio approach, reducing economic efficiency.[85]

[82] In other words, New Jersey's emissions from gas-fired power plants could remain unchanged if FRR contributes to the retirement of generators in other states, which could follow from New Jersey's fossil-fueled plants being highly competitive compared to their neighbors.

[83] *See* JEFFREY SHRADER, BURCIN UNEL, & AVI ZEVIN, INST. FOR POL'Y INTEGRITY, VALUING POLLUTION REDUCTIONS: HOW TO MONETIZE GREENHOUSE GAS AND LOCAL AIR POLLUTANT REDUCTIONS FROM DISTRIBUTED ENERGY RESOURCES (2018), https://policyintegrity.org/publications/detail/valuing-pollution-reductions (identifying locational and temporally specific data inputs and analytic steps involved in quantifying emissions avoided by using one resource instead of another).

[84] If carbon leakage is significant and unmitigated, other policy instruments might be more effective. Importantly, though, emission leakage effects exist with any unilateral climate policy, even command-and-control policies. *See* Joseph E. Aldy & Robert N. Stavins, *The Promise and Problems of Pricing Carbon: Theory and Experience*. 21 J. ENV'T & DEVELOPMENT 152–180 (2012).

[85] *See* Jan Abrell, Sebastian Rausch & Clemens Streitberger, *The Economics of Renewable Energy Support*, 176 J. PUB. ECON. 101 (2019); MATT BUTNER ET AL., INST. FOR POL'Y INTEGRITY, CARBON PRICING IN WHOLESALE ELECTRICITY MARKETS: AN ECONOMIC AND LEGAL GUIDE 12–16 (2020).

Table 1 Ability of different renewables support policies to incentivize optimal abatement.

Source: Table 2 in Jan Abrell, Sebastian Rausch & Clemens Streitberger, The Economics of Renewable Energy Support, 176 J. Pub. Econ. 101 (2019).

	Can the policy correct...			
	The relative prices of energy technologies/fuels?			The price of energy services ($\Delta p \lessgtr 0$)?
	Renewables vs. fossil-based	Within renewables: wind vs. solar	Within fossil-based: low vs. high carbon	
Single policy instruments				
Carbon pricing	Y	Y	Y	Y (p ↑↑)
FIT or market premium				
tech.-neutral	Y	N	N	N (p ↓)
tech.-differentiated	Y	Y	N	N (p ↓)
Energy demand tax	N	N	N	Y (p ↑↑)
RE support schemes combining single instruments				
FIT or market premium with energy demand tax				
revenue neutral	Y	Y/N	N	N (p ↑)
optimal	Y	Y/N	N	Y (p ↑↑)
Intensity or technology standards				
RE quota or RPS	Y	N	N	N (p ↑)
Green offsets	Y	Y	Y	N (p ↑)

And, in addition to leveling the playing field on which clean and emitting generation resources compete, a carbon price above that of RGGI's allowance price would deliver greater energy revenues to clean resources, allowing them to forego some or all payments for clean energy certificates. This would, in turn, make fewer of those resources' capacity market bids subject to MOPR. A higher carbon price can therefore be thought of as a response to the expanded MOPR order that could protect New Jersey's clean energy agenda and decrease the costs of its clean energy policies.

However, carbon pricing carries its own uncertainties—in particular concerning the extent to which leakage could undermine a carbon pricing program. While carbon pricing would cause in-state emissions to fall even without any form or leakage mitigation, for a high carbon price to be effective in New Jersey, leakage would need to be mitigated.

But modeling conducted by PJM suggests that the extent of that need depends on the timing and nature of Virginia and Pennsylvania's participation in RGGI, and also on the existence and application of an intra-PJM border adjustment mechanism. Adding Virginia and Pennsylvania's very large fleets of emitting generators to RGGI will have significant effects on the amount of leakage resulting from policies imposed on generators in New Jersey, and could alleviate price-pressure on those generators.[86] As for an intra-PJM border adjustment mechanism, its reduction of leakage would vary depending on the number of states participating in RGGI, the RGGI allowance price, and whether the mechanism would be "one-way" (i.e., effectively imposing the RGGI price on imports from outside the RGGI region) or "two-way" (i.e., also removing the

[86] MJB&A, ELECTRIC SECTOR MODELING – SUMMARY OF RESULTS 9 (2019), https://www.pjm.com/-/media/committees-groups/task-forces/cpstf/20191024/20191024-item-06-carbon-pricing-modeling.ashx (showing markedly different effects of RGGI participation on New Jersey generators as compared to generators in Virginia and Pennsylvania).

RGGI price from exports from inside the RGGI region). In some scenarios, leakage from RGGI states would largely be eliminated while PJM-wide emissions fall.[87] It is also unclear whether and how such a mechanism could be applied to a New Jersey-specific carbon price that exceeds RGGI's.[88]

3. Responses to BPU's Questions

All bolded headers and subheaders in this section are drawn from the items in BPU's Request for Written Comments.

Question #1 Can New Jersey utilize the Fixed Resource Requirement ("FRR") alternative to satisfy the State's resource adequacy needs?

a. Discussion of the FRR requirements under the PJM Tariff and how they may be applied to a restructured state, New Jersey specifically.

A restructured state like New Jersey could opt for FRR to satisfy its resource adequacy requirements instead of participating in PJM's wholesale capacity market, the RPM. Doing so in keeping with the various requirements of PJM's tariff described above in section 1 would, however, mean coordinating a large number of entities and monitoring both generators and utilities for exercises of market power. As explained above in section 1's discussion of FRR and in section 2.1.2, any design New Jersey might adopt under FRR would require the state to allocate and/or develop significant institutional capacity to perform functions similar if not identical to ones that are currently being performed by PJM and that will continue to be performed by PJM.

b. Discussion of the pricing and/or rate implications associated with FRR.

As explained above in sections 2.2.4 and 2.2.5, opting for FRR would have several countervailing effects on capacity and energy market prices. The net result of these effects depends on the implementation choices and is difficult to predict. Notably, as explained in section 2.2.6 above, the effects of FRR on market prices (or rates) are likely to contribute to, but also to be distinct from, the effects on customer bills.

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[87] PJM Carbon Pricing Senior Task Force, Study of Carbon Pricing & Potential Leakage Mitigation Mechanisms (Jan. 14, 2020) [hereinafter "PJM Modeling Runs 1-5"] (modeling "carbon region" as Delaware, Maryland, and New Jersey); PJM Carbon Pricing Senior Task Force, Expanded Results of PJM Study of Carbon Pricing & Potential Leakage Mitigation Mechanisms v.2 (Fed. 25, 2020) [hereinafter "PJM Modeling Runs 6 & 7"] (adding scenarios in which RGGI participants include Virginia, and Virginia and Pennsylvania); PJM Carbon Pricing Senior Task Force, Expanded Results of PJM Study of Carbon Pricing & Potential Leakage Mitigation Mechanisms (Mar. 27, 2020) [hereinafter "PJM Modeling Runs 8 & 9"] (adding scenario in which RGGI participants includes Pennsylvania but not Virginia). Whereas a one-way adjustment could largely eliminate leakage, a two-way adjustment would cause emissions from the RGGI region to rise but to be more than offset by falling emissions in the rest of PJM. PJM Modeling Runs 6 & 7.

[88] None of the modeling runs conducted by PJM so far identifies state-specific effects for New Jersey. *See* PJM Modeling Runs 8 & 9, at 4 (indicating that "Results by state" will be forthcoming).

c. Discussion of whether and how the State could pursue an FRR construct under existing legislative and regulatory provisions.

New Jersey could pursue FRR using authority available under existing legislative provisions by issuing regulations and orders that reinterpret those statutes in light of the changed circumstances confronting the state.[89] Courts have made clear, for instance, that "[d]eference must be accorded legislative judgment and Board of Public Utilities' (BPU) judgment concerning interpretation of Electric Discount and Energy Competition Act of 1999."[90] However, relying wholly on existing statutes would mean building institutions and processes to coordinate or conduct capacity procurements on top of foundations designed for other purposes. For instance, regulatory authority over transactions through the Basic Generation Service mechanism was preserved amid deregulation not to support potential FRR but to ensure reliability and affordability for residential and small commercial electricity customers.[91]

Given the importance of FRR solutions being designed and executed not just well but also quickly, BPU should recognize the risk that disruption or delay from litigation over the legality of a wholly regulatory approach to FRR could undermine the efficiencies and flexibility that FRR is meant to make available to the state. As such, legislation that expressly authorizes BPU (and possibly other agencies in consultation or collaboration with BPU) to pursue FRR could be extremely valuable. Such legislation would not need to be extensive or detailed,[92] but could serve a narrow, clarifying function that puts beyond doubt BPU's authority to, for instance, establish a statewide FRR program and require LSEs to participate therein pursuant to BPU's organic statute[93] and the Electric Discount and Energy Competition Act.[94]

f. Discussion of which entity would procure capacity under an FRR construct and whether capacity would be procured state-wide.

Policy Integrity has no specific recommendations for which entity or institution New Jersey should make responsible for capacity procurement or its coordination under an FRR construct—

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[89] *See* In re Provision of Basic Generation Serv. for Period Beginning June 1 2008, 15 A.3d 829, 834 (N.J. 2011) ("Regulatory law has an elasticity that permits it to adapt to changing circumstances and conditions, and a flexibility that allows agencies the ability to select those procedures most appropriate to enable the agency to implement legislative policy.") (internal quotation marks and citations omitted).

[90] In re Public Service Elec. and Gas Company's Rate Unbundling, Stranded Costs and Restructuring Filings, 748 A.2d 1161 (App. Div. 2000), *cert. granted* 758 A.2d 648, *cert. granted* 758 A.2d 648, *cert. granted in part* 760 A.2d 778, *aff'd* 771 A.2d 1163 (N.J.), *cert. denied sub nom.* Co-Steel Raritan v. N.J. Bd. of Pub. Utils., 534 U.S. 813 (2001).

[91] *See* N.J. STAT. ANN. 48:3-51 (providing that Basic Generation Service "shall be fully regulated by [BPU]").

[92] For the contrasting example of proposed FRR legislation in Illinois, which prescribes agency action in some detail, see Illinois H.B. 2861, at 23-28, 111-123, https://perma.cc/7LWB-MRLX.

[93] This includes, primarily, provisions codified at N.J. STAT. ANN. §§ 48:2-13 through -27.

[94] *E.g.*, N.J. STAT. ANN. § 48:2-13(d) ("The board shall also maintain the necessary jurisdiction with regard to the production of electricity and gas to assure the reliability of electricity and gas supply to retail customers in the State as prescribed by the board or any other federal or multijurisdictional agency responsible for reliability and capacity in the State.").

only two points of caution, which draw on the discussions above of FRR in sections 1 and 2.1.2. First, New Jersey has no entity like the Illinois Power Agency, New York Power Authority, or New York State Energy Research and Development Authority, and so would need to create a new entity or repurpose an existing one to perform this complex set of functions. And second, poor performance of these functions could be costly and operationally consequential.

h. Discussion of any affiliate relations or market power concerns related to implementation of FRR in New Jersey.

As described in section 2.2.2 above, implementation of FRR in New Jersey may give rise to substantial inefficiencies as a result of market power issues and the challenges of meeting them using new or existing institutions.

Question #2 Can New Jersey utilize the FRR to accelerate achievement of New Jersey's clean energy goals?

a. Discuss whether FRR is a viable construct to assist New Jersey in achieving its clean energy goals.

FRR, combined with climate policy tools used by New Jersey, can achieve the targeted deployment of renewable resources. However, as explained above in section 2.2.7, opting for FRR would not guarantee a decrease in the emissions arising from electricity consumption in New Jersey.

The efficiency and cost-effectiveness of FRR for the purpose of emissions reduction would depend on multiple factors, some of them beyond New Jersey's control, such as potential reversal of FERC's order to expand MOPR or Pennsylvania's and Virginia's decisions to join RGGI. FRR's usefulness for reducing emissions cost-effectively would also depend heavily on its design elements. Those include elements that affect the transaction and search costs and matching efficiency associated with capacity procurement, as well as those that limit—or enable—the exertion of market power and the degree of transparency among parties contracting for capacity. Of course, New Jersey's choices concerning instruments for climate policies, such as whether to expand carbon pricing, will also influence the merits of FRR. Both bill impacts (discussed in section 2.2.6) and emissions outcomes (discussed in 2.2.7) would be determined by a confluence of factors.

It is important to bear in mind that the capacity market is not the market New Jersey should be targeting for the purpose of achieving its emissions reduction goals. As emissions are related to actual electricity generation and not to the generators' capacity, New Jersey should search for solutions that apply to the market for energy and ancillary services. As described in section I.B of Policy Integrity's March 2020 report, *Carbon Pricing in Wholesale Electricity Markets: An Economic and Legal Guide*, carbon pricing is a particularly efficient solution, especially if the potential magnitude of carbon leakage is relatively low.[95] (The relevance and risk of leakage to

[95] BUTNER ET AL., *supra* note 85, at 12–16.

New Jersey, and factors likely to affect the magnitude of that risk, are discussed above in sections 1, 2.1.3, and 2.2.7.)

b. Discuss whether any FRR could be structured to ensure procurement of clean energy resources to meet resource adequacy needs in line with the 2019 EMP objectives.

i. How would procuring greater numbers of clean energy resources affect pricing outcomes?

Regardless of the method chosen for ensuring resource adequacy, if New Jersey directs LSEs to procure more clean energy resources than they would without any policy intervention, it will cause LSEs to incur higher payments in the aggregate (i.e., for clean energy certificates as well as capacity, energy and ancillary services). This is because competitive electricity markets tend to give rise to a generation fleet and dispatch solutions that minimize the private costs of providing energy. The greater the deviation from that market outcome, the higher the total private costs. It is difficult, however, to predict how that increase in private costs would be distributed among capacity, energy, and ancillary services payments.

It may be that, even when aggregated payments increase, higher clean resource requirements would still be net beneficial for consumers because they would avoid external damages from fossil-fueled generation, which, apart from payments for RGGI allowances, are not currently reflected in wholesale market prices. As explained in section 2.2.6, the expanded MOPR will increase the costs of New Jersey's clean energy deployment policies, and higher clean resource deployment targets will mean correspondingly higher costs (expected pricing outcomes under FRR are discussed in sections 2.2.4 and 2.2.5). Consequently, the more ambitious the clean resource requirements prescribed by New Jersey's RPS and other policies, the greater the relative benefits of opting for FRR.

ii. Could the State require that procurements "internalize" the value of anticipated carbon emissions during the delivery year, subject to a true-up?

Emissions are related to actual electricity generation and not to capacity, which is just the *potential* to deliver energy. While in theory it would be possible to calculate the expected emissions of each resource and adjust FRR capacity payments by a corresponding amount, accurate calculations are difficult given the dynamic nature of electricity markets. But even if New Jersey could somehow calculate the amount accurately, this approach would not make good economic sense, for at least two reasons.

First, under FRR, fossil-fueled generators would still have the option of participating in and clearing the PJM capacity market. If the FRR price falls below the expected RPM price (adjusted to account for lower price risk if the FRR contract is for multiple years), fossil-fuel generators would choose not to sign FRR contracts. In practice, therefore, only cleaner fossil-fueled resources would "internalize" the value of anticipated emissions; dirtier resources would choose to clear RPM auctions. And second, FRR contracts would be signed several years before the any

energy is called for or delivered. After signing those contracts, FRR units would have no incentive to ensure low emissions.[96]

A better and simpler solution would be to internalize emissions through the price paid for energy rather than capacity.[97]

a. Discuss whether the State should consider adopting an energy market carbon dispatch price, in addition to RGGI, in lieu of an FRR approach.

Policy Integrity strongly encourages New Jersey to consider this option.

i. How would such an approach work?

An energy market carbon dispatch price in addition to the price of RGGI allowances could be undertaken using either a quantity-based cap-and-trade mechanism or a price-based mechanism; New Jersey already does the former as a RGGI participant. As noted above in section 2.2.7, carbon pricing is a uniquely efficient means of reducing emissions over both the short and long-term.[98] And, as Policy Integrity describes in its March 2020 carbon pricing report, RTOs, including PJM, have not just accommodated but facilitated carbon pricing schemes grounded in state law, including RGGI and California's Cap-and-Trade Program.[99] The main unresolved issue for New Jersey regarding the development and adoption of a carbon pricing program is the legal sufficiency of existing statutory authority to do so.[100]

ii. Discuss whether such a carbon price is a viable construct to ultimately get New Jersey to achieve the totality of the 2019 EMP goals.

Adoption of a carbon pricing program in New Jersey (whether economy-wide or just with respect to the electricity sector) would presumably not be the only policy contributing to electricity-related emissions reductions and accelerating renewable generation deployments. It would instead be a part of a suite of solutions, including, for instance, grid modernization and on and offshore transmission development. And so, on the one hand, it would be wrong to expect carbon pricing alone to achieve the goals set out in New Jersey's 2019 Energy Master Plan,

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[96] Generators are able to change their emissions profile, among others by changing their heat rates. *See* Joshua Linn, Erin Mastrangelo & Dallas Burtraw, *Regulating Greenhouse Gases from Coal Power Plants under the Clean Air Act*, 1 J. ASS'N ENVTL. & RESOURCE ECONOMISTS 97 (2014) (estimating responsiveness of heat rates to prices and policies).

[97] *See* BUTNER ET AL., *supra* note 85.

[98] *See* Abrell, Rausch & Streitberger, *supra* note 85.

[99] BUTNER ET AL., *supra* note 85, at 48-54. There remains a possibility that FERC would determine that resources benefiting from a New Jersey carbon pricing scheme should be subject to MOPR. In its April Order on Rehearing, FERC clarified that "RGGI is not considered a State Subsidy," but also said "[w]e decline to address arguments regarding carbon pricing programs generally, as we do not prejudge future programs or those on which do not have a record." Order on Rehearing and Clarification, at P 390.

[100] It should also be noted that either a quantity or price-based program would interact with New Jersey's participation in RGGI; a quantity-based program in particular would likely free up RGGI allowances, reducing their price and allowing emitters in other states to purchase them more cheaply.

which include large deployments of offshore wind capacity that will require targeted forms of support in addition to the more general incentive of a carbon price. On the other hand, it is correct to see in carbon pricing a uniquely efficient tool for coordinating myriad investments whose cumulative scale is unprecedented.

Administrative approaches to facilitating and steering the investments contemplated by the 2019 Energy Master Plan cannot be expected to permeate economic decisionmaking in the electricity sector to the same degree as a carbon price. Putting a price on carbon will simultaneously send price signals to investors and entrepreneurs and support the retention of relatively clean generation capacity, discriminating effectively among fossil-fueled generation with relatively better and worse emissions profiles.[101] To be effective in these ways, of course, a carbon pricing program must not be undermined by leakage, which New Jersey has a legal obligation to address.[102] As discussed above in sections 2.1.3 ("key determinants of leakage are beyond New Jersey's control"), 2.2.6 (bill impacts), and 2.2.7 (emissions), the magnitude of the risk that leakage poses to a carbon pricing program's efficiency and effectiveness depends to a meaningful degree on: first, decisions made by the states of Virginia and Pennsylvania and by RGGI participants regarding how best to make way for those states' participation in RGGI; and second, on how and when PJM proceeds with its development and implementation of an intra-RTO border adjustment mechanism. To be clear, these two factors do not prevent New Jersey from addressing leakage, but rather determine how much New Jersey would have to do on its own to address leakage from its participation in RGGI and its adoption of any additional carbon pricing policy. New Jersey should consider, regardless of how these external decisions go, leakage mitigation of the sort that California has adopted to protect its Cap-and-Trade Program and that the New York ISO has incorporated into its design of a carbon pricing program.[103] Such mitigation will necessarily involve both state-level program design and collaboration with PJM on administrative solutions for specifying emissions levels to be assigned to electricity imports.[104]

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[101] *Cf.* SUSAN F. TIERNEY & PAUL J. HIBBARD, ANALYSIS GRP., CLEAN ENERGY IN NEW YORK STATE: THE ROLE AND ECONOMIC IMPACTS OF A CARBON PRICE IN NYISO'S WHOLESALE ELECTRICITY MARKETS; SUMMARY FOR POLICY MAKERS AND FINAL REPORT 2–5 (2019) (describing how carbon pricing for New York's electricity sector is uniquely able to cause all stakeholders to "row in the same direction").

[102] N.J. STAT. ANN. §§ 26:2C-39, 26:2C-41, 48:3-87(c)(2).

[103] *See* Meredith Fowlie & Danny Cullenward, *Emissions Leakage and Resource Shuffling*, *in* DALLAS BURTRAW ET AL., 2018 ANNUAL REPORT OF THE INDEPENDENT EMISSIONS MARKET ADVISORY COMMITTEE 25–27, 32–38 (2018) (describing one-way border adjustment mechanism and related administrative features developed through collaboration between California and the California ISO); N.Y. INDEP. SERV. OPERATOR, IPPTF CARBON PRICING PROPOSAL 8–9 (2018) (summarizing one-way border adjustment mechanism and related administrative requirements for generators and the New York ISO).

[104] BUTNER ET AL., *supra* note 85, at 54 (describing features of California-CAISO collaboration, opportunities to emulate them, and stating generally that "states have the ultimate responsibility for designing their carbon price programs; RTO market changes would be merely responsive. But RTOs may have a role to play at the design stage as well.").