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Regulatory Affairs

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**Carmen D. Diaz, Acting Secretary of the Board**  
New Jersey Board of Public Utilities  
44 South Clinton Ave., 1<sup>st</sup> Floor  
Trenton, NJ 08625-0350 - USA

Submitted electronically

October 24, 2022

Re: Docket No. EO20030203, Investigation of New Jersey's Resource Adequacy Alternatives

Dear Secretary Diaz,

Enel North America, Inc. ("Enel") is pleased to submit comments on the 2022 Progress Report on New Jersey's Resource Adequacy Alternatives prepared by the New Jersey BPU Staff in Docket No. EO20030203.

Enel applauds the BPU Staff for the extensive analysis and stakeholder engagement in this docket, and strongly agrees with the recommendations to align state policy with regional capacity electricity procurement. Moving ahead, Enel recommends that the implementation of next steps should be organized in two stages that allow for prioritization. Enel urges the Board to set timelines for finalization of Governance and Clean Capacity Credits both within 2023. This work will help New Jersey speed the energy transition needed to achieve its ambitious climate goals, making the State a leader in the region.

Enel thanks the New Jersey Board of Public Utilities for the opportunity to provide these comments and supports the State on its path toward a reliable, least-cost, and carbon-free electric grid.

**Brian Kauffman**

Director, Regulatory Affairs

**Comments of Enel North America, Inc.**

**In the Matter of the New Jersey Investigations into Resource Adequacy: 2022 Progress Report**

**Docket No. EO20030203**

**October 24, 2022**



## Executive Summary

Enel North America, Inc. (“Enel”) appreciates the opportunity to comment on the 2022 Progress Report on New Jersey’s Resource Adequacy Alternatives<sup>1</sup> (“Report”) presented by the New Jersey Board of Public Utilities (“BPU” or “Board”) Staff in Docket No. EO 20030203. Enel supports the three primary recommendations in the Report, and encourages the Board to adopt these policy statements and direct Staff to work on their implementation with specified timelines. In particular, Enel strongly supports the BPU Staff’s recommendations to “favor Procurement of Clean Capacity over capacity from emitting resources” and encourages the Board to prioritize such procurement. As the analysis indicates, an Integrated Clean Capacity Market (“ICCM”) without a constraint for Clean Capacity or a standalone Forward Clean Energy Market (“FCEM”) with no consideration of capacity are vastly inferior options for decarbonizing New Jersey’s energy supply in a cost-effective and reliable manner.

Given the large scope of activities considered in the Report, Enel offers recommendations on how to prioritize next steps by dividing activities into two stages. Furthermore, Enel offers detailed comments on what we define as the priorities of the first stage, which include Governance and Clean Capacity Credit. Enel encourages the Board to set specific deadlines within 2023 to accomplish setting up stage 1.

## Introduction

Enel applauds the BPU Staff for the forward-thinking recommendations presented in the Report. In general, Enel strongly agrees with the recommendations in the Report to align state policy with regional capacity electricity procurement. This will help New Jersey speed the energy transition needed to achieve its ambitious climate goals, making the State a leader in the region.

Enel agrees that “A Clean Capacity Credit requirement would promote multiple technologies that are of direct interest to New Jersey policy makers, including nuclear, demand response, energy efficiency and energy storage devices – resources that will be critical to maintaining reliability during the clean energy transition but that currently do not have access to Renewable Energy Credits (“RECs”) or other RPS-based funding streams.”<sup>2</sup> As Enel shared in its January 2022 presentation among PJM Interconnection (“PJM”) stakeholders<sup>3</sup>, electricity markets should optimize for three objectives – reliability, least-cost, and meeting consumer/state decarbonization policies. Currently, regional markets are not optimizing for consumer and state decarbonization policies, the third “leg of the stool” for New Jersey.

Mitigating the cost impact to consumers during the energy transition is critical. The Report illustrates that an ICCM with requirements for clean capacity is a highly cost-effective pathway for decarbonizing New Jersey’s energy supply.<sup>4</sup> As Figure 1 from the Report’s Appendix and the figure from the Report’s Section III.D (both figures shown below) highlight, a mid or high Clean Capacity constraint scenario can reduce emissions by approximately 20 to 40% below the status quo Reliability Pricing Model (“RPM”) market design, at comparable or lower costs to consumers. On the other hand, an ICCM alone

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<sup>1</sup> 2022 Progress Report on New Jersey’s Resource Adequacy Alternatives (“Report”): [https://nj.gov/bpu/pdf/Staff's%202022%20Resource%20Adequacy%20Investigation%20Report\\_Final.pdf](https://nj.gov/bpu/pdf/Staff's%202022%20Resource%20Adequacy%20Investigation%20Report_Final.pdf)

<sup>2</sup> Report, page 38

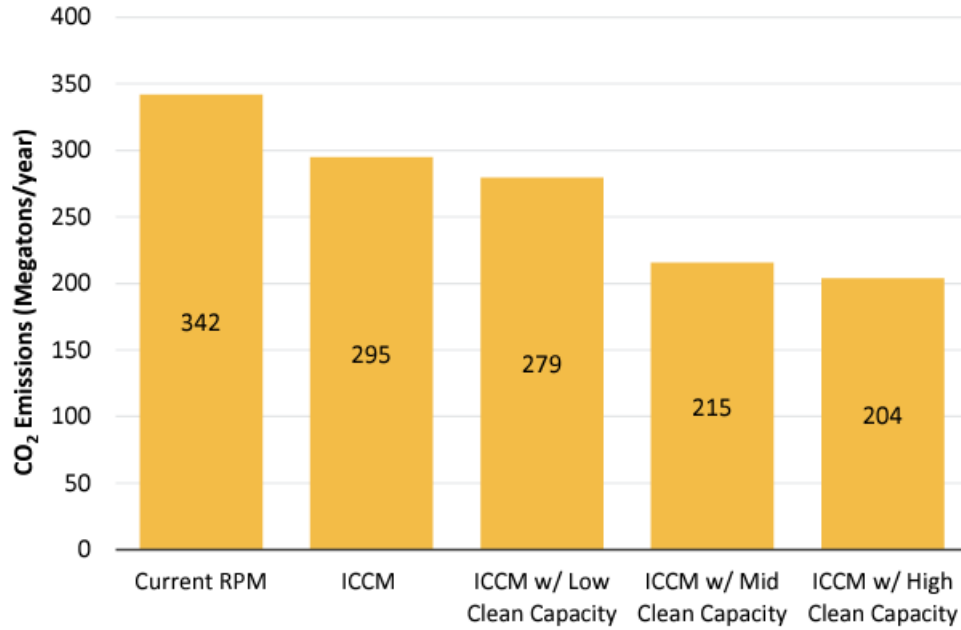
<sup>3</sup> Enel’s slide deck on “PJM’s Role in Regional Preferred Resource Procurement”, presented at the PJM Resource Adequacy Senior Task Force (“RASTF”) on January 10, 2022: <https://www.pjm.com/-/media/committees-groups/task-forces/rastf/2022/20220110/20220110-item-05b-clean-procurement-perspectives-enel.ashx>

<sup>4</sup> Report, page 35



would reduce emissions by less than 15% below the status quo and at higher costs. Based on the BPU Staff findings, it is difficult to imagine a practical pathway other than a Clean Capacity Constraint to achieve such high emission reductions at minimal costs to consumers.

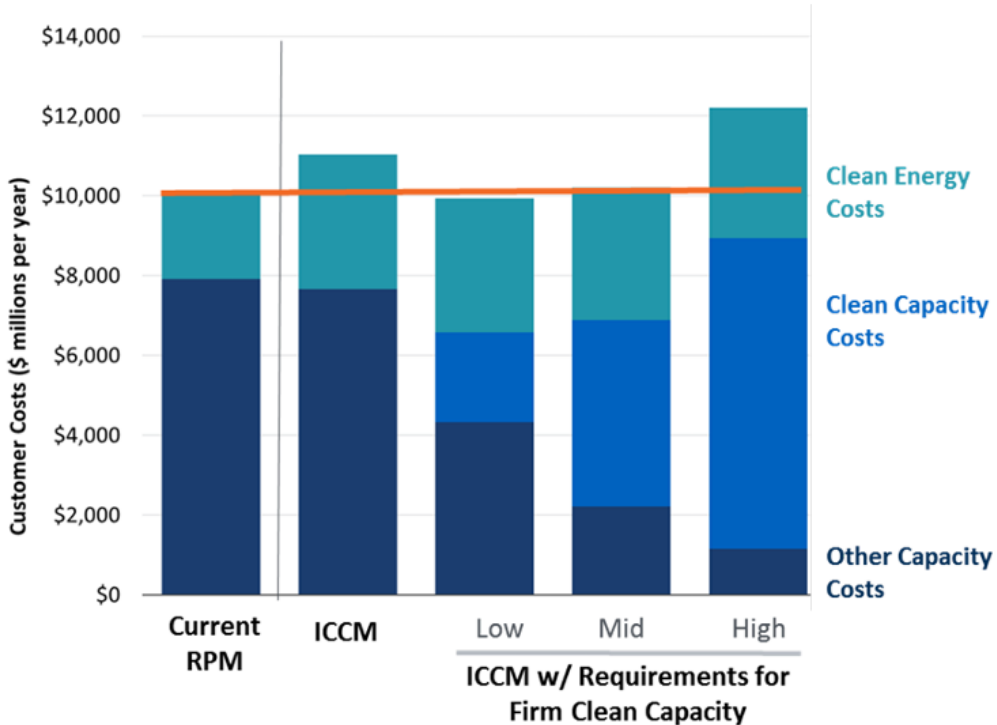
**Figure 1 from the Report's Appendix<sup>5</sup>**



<sup>5</sup> Report, page 49



Figure from Report’s Section III.D. “A Forward Clean Energy Market Results in Significant Net Benefits to Consumers.”<sup>6</sup>



Enel agrees with the Report’s assessment that in order to achieve an effective ICCM with a Clean Capacity Constraint, the state must first develop the concept of “Clean Capacity Credits”. The objective of these Clean Capacity Credits should be to incent new and retain existing clean resources, which would enable New Jersey to fully decarbonize without threatening reliability.<sup>7</sup> To move forward with Clean Capacity Credits in a timely manner, Enel recommends that the credits initially operate as stand-alone credits alongside the existing RPM, and ultimately transition to a full ICCM.

Wholesale capacity markets have been designed around incentivizing entry and retention of natural gas and other thermal resources based on the characteristics that are historically preferred to maintain reliability. PJM already compensates these resources through its capacity market. Some zero emission resources participate, and nuclear has historically been very active in this market. However, the

<sup>6</sup> Report, page 35

<sup>7</sup> Regarding reliability, the Report highlights that “Critically, Staff believes that any regional ICCM or clean energy (or capacity) market structure should continue to enforce existing PJM reliability metrics, as established by PJM and FERC, including appropriate reserve margins, enforcement of localized transmission and generation constraints, and other operational parameters that have historically led PJM to have a high degree of bulk system reliability. Staff notes that each of Staff’s recommendations included in this report will allow PJM to secure the same high level of bulk system reliability that New Jersey consumers receive today” (29)



capacity market has been slow to incentivize the type of clean, flexible resources – such as energy storage – that are necessary to decarbonize and balance the future grid.<sup>8</sup>

Thus, while this capacity market structure has incentivized the influx of natural gas generation to the region, it has not compensated capacity for zero-carbon attributes. Just as RECs compensate for clean energy production (Megawatt hours), Clean Capacity Credits would compensate for clean installed capacity (Megawatts).

In addition, while it's true that RECs compensate clean attributes from solar and wind, many resources such as nuclear, demand response, energy efficiency, and energy storage do not have the ability to receive this revenue to provide clean energy. Clean Capacity Credits could be used to incentivize the clean, reliability-enhancing attributes of these resources. Furthermore, the Report notes that innovative technologies such as clean hydrogen – which could provide a pathway for existing hydrocarbon infrastructure to be utilized in a zero-carbon economy – could also be eligible to receive these credits.

As the BPU Staff highlights, the system will increasingly require greater installed capacity to keep the lights on. If states and markets do not compensate for Clean Capacity, it is more likely that the region will instead have to rely on carbon emitting resources, further impeding New Jersey's goals to decarbonize. Indeed, the creation of Clean Capacity Credits functions as a carrot for the market to build more clean capacity resources, particularly those that are dispatchable.

Finally, the overall direction toward an ICCM or FCEM with Clean Capacity Constraint is preferable over other market designs such as integrating a Social Cost of Carbon, which might have greater implementation challenges. The approaches that the BPU Staff recommends align state policy with regional markets. In addition, the FCEM/ICCM give buyers the most control over purchasing the desired attributes (zero carbon) that are needed to achieve the State's goals. In any case, integrating a Social Cost of Carbon approach may also be appropriate in the future and is not prevented by initially working on procurement-based approaches such as the ICCM and FCEM.

### **Enel Recommendation to Divide Next Steps into Two Stages**

The Report makes the following three high-level recommendations, which Enel supports.

“Staff recommends that the Board find that:

- (i) An Integrated Clean Capacity Market Would Result in Significant Cost Savings and Accelerate the Clean Energy Transition; New Jersey Should Continue to Advocate for its Adoption at the Regional Level;
- (ii) While Regional Efforts Continue Under Uncertainty, New Jersey Should Develop a Regional Voluntary Clean Energy Market; and
- (iii) New Jersey Should Favor Procurement of Clean Capacity Over Capacity From Emitting Resources.”<sup>9</sup>

<sup>8</sup> Brattle's slide deck on “Fifth Review of the Variable Resource Requirement Curve” showing a gas combined cycle unit as the reference technology for the capacity market's demand curve: <https://www.pjm.com/-/media/committees-groups/committees/mic/2021/20211008-special/20211008-item-02-brattle-reference-technology-presentation.ashx>

<sup>9</sup> Report, page 48



Given the range of potential next steps following from endorsing this set of recommendations, New Jersey should prioritize its efforts into time- and outcome-delineated stages. More specifically, Enel recommends that the Board direct Staff to pursue implementation in two stages. A full ICCM with Clean Capacity constraint requires essentially integrating a Clean Capacity Credit auction and PJM Base Residual Auction (BRA). While preferable together, BPU Staff analysis concludes many benefits can be even achieved by running the Clean Capacity Credit auction separate from the BRA. Thus, given the administrative steps needed to develop a full ICCM, it would be practical to work toward an ICCM with Clean Capacity in two stages.

The first stage (“Stage 1”) would prioritize the creation of a governance structure for New Jersey, with the capability to expand to other voluntary states and non-state participants, as well as the development of Clean Capacity Credits. As the Report lays out, there is no mechanism for buyers to currently determine what type of capacity they wish to buy. In addition, a Governance Structure does not exist to enable Clean Capacity Credits and/or an ICCM/FCEM. The Report lays out many of the critical decisions and steps needed to develop these. Putting only the Clean Capacity Credits and Governance Structure steps into Stage 1 would allow New Jersey to immediately correct the mis-match between the type of capacity it is procuring and its decarbonization goals, and create a Governance structure capable of growth into a full ICCM/FCEM.

In the second stage (“Stage 2”), New Jersey could move ahead to co-optimize clean energy and capacity, which adds complexity and opportunity as the Report describes. For instance, the concept of clean energy compensation indexing will add several levels of decisions and development of analytical tools. The Report also highlights the concept of locking-in a price on clean energy attributes for 7-12 years. These concepts are worthy of review and require a much broader consideration of state and regional REC markets. Therefore, we recommend including these into Stage 2.

### **Response to Governance-Focused Recommendations**

Governance is a critical element of New Jersey’s activities in Resource Adequacy and can have implications even beyond the Resource Adequacy realm. Enel generally agrees with the concept of New Jersey working along separate tracks – through a PJM-regional led approach, and a New Jersey-led approach – to maximize the opportunities and ensure the State’s success toward decarbonization. Enel is a strong proponent of competitive markets and notes that the Report highlights the value of regional markets to decrease costs to consumers. Whether or not a market is ultimately ran through PJM, the Report highlights that the benefits of regional markets can also be attained through a New Jersey-led approach that bring together other states and voluntary buyers, such as municipalities.

Enel recommends that the Board ensure that any governance structure that New Jersey sets up has the proper level of resourcing and stability so that both buyers and sellers can place their full faith into the products sold under its auspices (such as Clean Capacity Credit), thus ensuring it functions as a tool to decarbonize in a cost-effective manner.

Enel agrees with the BPU Staff that moving to a Fixed Resource Requirement (“FRR”) should be viewed as a back-up option after exploring all options for New Jersey to remain in PJM’s RPM. In the meantime, a Clean Capacity Credits model can be initiated and implemented under the current RPM structure, which has the benefit of full competition across PJM’s thirteen states & the District of Columbia,



thereby ensuring competition and reducing prices for customers and ensuring adequate buyers, which incentivizes participation from market sellers.

## Response to Capacity-Focused Recommendations

### 1. Definition of Clean Capacity Credit

Enel generally supports the definition of Clean Capacity Credit laid out in the Report: “one UCAP megawatt of capacity, as certified by PJM, for a particular delivery year or season, and particular PJM capacity zone that is produced by a resource that does not directly emit GHGs, including nuclear, energy storage, demand response, energy efficiency, a resource capable of producing Class I REC, or an emitting resource that either uses a 100% carbon-free feedstock or that captures and sequesters 100% of the carbon that would otherwise be produced.”<sup>10</sup>

Further BPU efforts should explore the meaning of “certified”. It will be important to determine what steps are necessary to take to qualify for a Clean Capacity Credit auction run by PJM or New Jersey.

### 2. Implementation

Enel generally supports the high-level implementation process laid out in the Report: “Each NJ supplier would also be required to purchase a certain level of Clean Capacity Credits prior to meeting their capacity obligations in PJM’s RPM auction. This design would function similar to the existing REC market in which TPS and BGS providers are required to purchase a certain level of their annual energy from the REC market, and meet additional technology-specific requirements, using the State’s REC programs.”<sup>11</sup>

Enel understands that the sellers in the Clean Capacity Credit auction would be capacity market sellers located in PJM zones that are consistently deliverable to New Jersey (i.e., sellers within New Jersey, as well as EMAAC and MAAC). The locational element of the program is important to guarantee that this capacity is deliverable and does not face bottlenecks for loads in New Jersey. The buyers would be third-party suppliers and basic generation suppliers in New Jersey.

The detailed mechanics of such an auction and “certification” by PJM require greater evaluation that should be addressed in the next stage.

### 3. Tracking

Enel generally supports the Tracking concept for a Clean Capacity Credit: “A Clean Capacity Credit would be tracked similar to a Renewable Energy Certificate, in that the purchasing LSE would “retire” sufficient Clean Capacity Credits equal to a percentage of its PJM-determined total and locational capacity obligations. Unlike a REC, a CCC could only be used for a specific PJM Delivery Year, and would not be bankable, in order to maintain consistency with existing capacity market practices.”<sup>12</sup>

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<sup>10</sup> Report, page 40

<sup>11</sup> Report, page 37

<sup>12</sup> Report, page 40





This is reasonable given that year-to-year changes in capacity market may affect the definition of capacity, as well as, the fungibility issue discussed above.

#### 4. Indexing

The concept of indexing appears practical from an energy market and clean energy attribute perspective. However, Enel has questions over the objective and outcomes that BPU Staff seeks related to indexing from a capacity perspective. The Report states that “Staff also recommends that the Board consider indexing any future Clean Capacity Credit. The indexing feature on a CCC would track the level of carbon emissions related to the generation resource in which the CCC is produced from and would have the ability to quantify the amount of carbon emissions displaced by using the CCC compared to a non-clean capacity certified resource.”<sup>13</sup> Since CCCs are proposed to be only from resources that directly do not emit, Enel would like to better understand Staff intent and process for indexing CCCs.

#### 5. Alternative Compliance Payment

Enel supports the concept of an Alternative Compliance Payment (“ACP”) and recommends setting the ACP at a price sufficient to incentivize market entry from the zero carbon resources that New Jersey is trying to attract. More specifically, the Board could set the ACP equal to the Cost of New Entry (“CONE”) for the most economic and widely available new energy storage technology. Brattle recently conducted a report in PJM of the CONE for different technologies, to define the reference technology for the capacity market’s demand curve. While energy storage was considered as one of the technologies, a gas combined cycle unit was instead chosen as the reference technology. Brattle notes that the Net Cost of New Entry (“Net CONE”) for a 4-hour battery is \$163/UCAP-MW-day.<sup>14</sup>

### **Response to Recommendations Beyond Capacity**

Enel strongly supports the ICCM and FCEM concepts and findings of the Resource Adequacy Alternatives Report<sup>15</sup>. This most current Report highlights several recommendations beyond Capacity that will be critical to evaluate fully as part of a full ICCM and/or FCEM:

1. Explore adding a price lock for a period of 7-12 years for long-term clean energy attributes at a fixed price
2. Explore performance-based true ups for attributes

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<sup>13</sup> Report, page 41

<sup>14</sup> Brattle’s slide deck on “Fifth Review of the Variable Resource Requirement Curve” showing a gas combined cycle unit as the reference technology for the capacity market’s demand curve:  
<https://www.pjm.com/-/media/committees-groups/committees/mic/2021/20211008-special/20211008-item-02-brattle-reference-technology-presentation.ashx>

<sup>15</sup> Alternative Resource Adequacy Structures for New Jersey: Staff Report on the Investigation of Resource Adequacy Alternatives (“Resource Adequacy Alternatives Report”), BPU Docket No. EO20030203, issued June 2021. Available at:  
[https://nj.gov/bpu/pdf/reports/NJ%20BPU%20RA%20Investigation%20\(Final\).pdf](https://nj.gov/bpu/pdf/reports/NJ%20BPU%20RA%20Investigation%20(Final).pdf)



3. Explore using “additionality” as a “constraint in the State’s clean energy preference and enable the regional clean energy market to assist the State in ensuring that a portion of all RPS resources are sourced from new clean energy facilities.”<sup>16</sup>

Enel notes the importance of these topics but does not comment on the substance at this point, as these topics deserve greater consideration.

## **Conclusion**

Enel thanks the BPU for the opportunity to provide these comments on the 2022 Progress Report on New Jersey’s Resource Adequacy Alternatives prepared by the New Jersey BPU Staff. Enel applauds the BPU Staff for the forward-thinking recommendations presented in the Report. In general, Enel strongly agrees with the recommendations in the Report to align state policy with regional capacity electricity procurement. This will help New Jersey speed the energy transition needed to achieve its ambitious climate goals, making the State a leader in the region.

Enel supports the three primary recommendations, and encourages the Board to adopt these policy statements and direct Staff to work on implementation within specified timelines. In particular, Enel strongly supports the BPU Staff’s recommendations to “favor Procurement of Clean Capacity over capacity from emitting resources” and encourages the Board to prioritize such procurement. Further, Enel suggests organizing next steps into two separate stages, allowing the BPU Staff to focus on prioritization of the recommendations. Enel urges the Board to complete Governance and Clean Capacity Credit efforts, the critical next “stage 1”, in 2023.

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<sup>16</sup> Report, page 32