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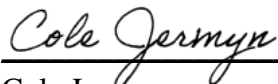
Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
Post Office Box 350
Trenton, New Jersey 08625

Re: Docket No. QO21010085, In the Matter of Modernizing New Jersey’s Interconnection Rules, Process, and Metrics

Dear Secretary Camacho-Welch:

Environmental Defense Fund (“EDF”) submits this comment to New Jersey Board of Public Utilities (“Board” or “BPU”) Docket No. QO21010085, In the Matter of Modernizing New Jersey’s Interconnection Rules, Process, and Metrics. As directed in the Notice dated October 15, 2021 and the amended Notice dated April 19, 2022, these comments are submitted to the docket before 5:00pm ET on July 19, 2022, and thus are timely filed.

Respectfully submitted,



Cole Jermyn

COMMENTS OF ENVIRONMENTAL DEFENSE FUND ON GRID MODERNIZATION

Docket No. QO21010085 – In The matter of Modernizing New Jersey’s Interconnection Rules, Processes, and Metrics

I. Introduction

Environmental Defense Fund (“EDF”) is a membership organization whose mission is to preserve the natural systems on which all life depends. Guided by science and economics, EDF seeks practical solutions to resolve environmental problems. EDF uses the power of markets to speed the transition to clean energy resources, and consistent with its organizational purpose is engaged in activities to facilitate cost-effective and efficient energy market designs that encourage investment to modernize the energy grid so that it can support the ongoing deployment of renewable energy resources, new electric technologies that avoid fossil fuel combustion and attendant emissions (such as transportation and building electrification), and energy efficiency. EDF has been focused on driving the adoption of clean trucks and buses for over 20 years, including collaborating with commercial entities to accelerate technology development as well as engaging in transformative legislative and regulatory initiatives focused on reducing greenhouse gas emissions and diesel emissions that harm public health especially in vulnerable populations. While trucks and buses today are a significant source of greenhouse gas emissions and local air pollution, an electrified truck and bus sector has the potential to become a critically important grid resource.

On May 23, 2018, New Jersey Governor Phil Murphy signed Executive Order 28 directing the New Jersey Board of Public Utilities (“BPU” or “Board”), in collaboration with other State agencies, to develop an updated Energy Master Plan (“EMP”) for the State with a goal of 100% clean energy by 2050.¹ On January 27, 2020, Governor Murphy release the EMP to the public.² The EMP contains several decarbonization strategies meant to collectively allow the State to achieve its climate goals. This includes Strategy 5: Decarbonize and Modernize New Jersey’s Energy System.³ Strategy 5 incorporate several goals, including Goal 5.1: Plan for and Implement the Necessary Distribution System Upgrades to Handle Increased Electrification and Integration of Distributed Energy Resources.⁴ On October 15, 2021 in response to EMP Goal 5.1, the Board issued a notice announcing a series of stakeholder meetings to collect feedback for a report by Guidehouse on “current distribution grid interconnection policies and processes and potential improvements to those policies and processes that will enable faster grid modernization and higher levels of distributed energy resource (“DER”) absorption.”⁵ Following these stakeholder meetings, Guidehouse submitted its Draft Grid Modernization Study: New Jersey

¹ N.J. Exec. Order No. 28 (May 23, 2018).

² Press Release, *Governor Murphy Unveils Energy Master Plan and Signs Executive Order Directing Sweeping Regulatory Reform to Reduce Emissions and Adapt to Climate Change* (Jan. 27, 2020), <https://www.nj.gov/governor/news/news/562020/approved/20200127a.shtml>.

³ New Jersey Board of Public Utilities, *2019 New Jersey Energy Master Plan*, at 173 (Jan. 2020) [hereinafter “EMP”], https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.

⁴ *Id.* at 174.

⁵ Docket No. QO21010085, In the Matter of Modernizing New Jersey’s Interconnection Rules, Processes, and Metrics, *Notice of Stakeholder Meetings* (Oct. 15, 2021).

Board of Public Utilities (“Draft Study”) on June 13, 2022.⁶ These comments provide feedback on the Draft Study.

II. General Feedback on Draft Grid Modernization Study

Grid modernization remains a crucial, underdeveloped aspect of New Jersey’s energy transition. The need to electrify end uses such as transportation and buildings as part of the State’s decarbonization goals, the proliferation of DERs both behind and in front of customer meters, and importance of minimizing ratepayer costs all underscore the need to reimagine the state’s distribution grid infrastructure with an eye towards the future. The recommendations included in the Draft Grid Modernization Study, if implemented, would represent a substantial, much-needed renovation of the interconnection process for DERs in New Jersey. Feedback on each of the recommendations is provided in detail below. In addition to this feedback, we provide these comments to emphasize the fact that interconnection is only one element of the larger grid modernization process. Complete grid modernization consistent with the goals established in the EMP must also include granular load forecasting, robust grid planning, advanced rate design, and updates to utility operations. Collectively, these reforms will allow the State to transition to a reliable, cost-effective, zero-emission grid.

The BPU’s grid modernization efforts should not be completed in a vacuum, focusing on discrete issues such as renewables interconnection, and instead must take into account the existing and anticipated laws and regulations that are relevant to the future of New Jersey’s electric grid. This includes efforts currently underway at the Federal Energy Regulatory Commission (“FERC”) to consider transmission-level reforms to many of the same interconnection policies covered in the Draft Report, including “first ready, first served,” cluster studies, hybrid interconnection, and cost allocation reforms.⁷ The BPU should consider how reforms to distribution system interconnection policies in New Jersey can leverage and complement these existing and ongoing efforts to allow for greater interjurisdictional consistency in these policies, and to reduce the need to engage in duplicative work.

Reforms to the interconnection process, and further grid modernization efforts, must also account for the needs of not just those who rely on this process today, but also those who are expected to do so in the future. For example, the Advanced Clean Trucks (“ACT”) rule adopted by the Department of Environmental Protection in December of 2021 will require increasing fractions of medium- and heavy-duty vehicles (“MHDVs”) sold in New Jersey to be zero-emissions starting in model year 2025⁸ Many of these vehicles are expected to be electric vehicles, and their charging needs will have unique impacts on the distribution grid. Their substantial electricity demand may ultimately require grid upgrades, particularly in the areas where fleets are clustered, projects that can require substantial lead time on the part of the electric distribution company (“EDC”). The Board’s grid modernization work should take into account these unique needs. And, because these fleets will likely see their load grow over several years rather than electrifying their entire fleet at once, interconnection processes should account for this piecemeal

⁶ Docket No. QO21010085, In the Matter of Modernizing New Jersey’s Interconnection Rules, Processes, and Metrics, *Grid Modernization Study: New Jersey Board of Public Utilities* (June 13, 2022) [hereinafter “Draft Study”].

⁷ Improvements to Generator Interconnection Procedures and Agreements, 87 Fed. Reg. 39,934 (July 5, 2022).

⁸ Advanced Clean Trucks Program and Fleet Reporting Requirements, 53 N.J.R. 2148(a) (Dec. 20, 2021).

approach and not require owners to complete the entire interconnection process from scratch for each new charger installed.

These vehicles also have the potential serve as grid assets through the use of vehicle-grid integration (“VGI”) and co-located DERs. VGI includes vehicle-to-grid (“V2G”) where EVs send power back into the grid, and managed charging (“V1G”) where the vehicles reduce their charging demand during high-cost, high-demand periods. Both VGI and co-located DERs, such as solar and battery storage can be a valuable tool for facilitating the integration of EVs onto the grid while mitigating the need for costly grid upgrades that can arise from unmanaged charging. The next step in New Jersey’s grid modernization process should be to move beyond interconnection to also account for and incorporate transitions like that from gasoline and diesel-fueled vehicles to EVs that will impact—and present opportunities for—New Jersey’s electric grid and ratepayers.

A necessary component of this work will be conducting forecasting and planning with the energy transition in mind, work that must begin as soon as possible. As stated in New Jersey’s 2019 EMP, Goal 5.1.1 integrated distribution planning (“IDP”) is needed to “optimally and most cost effectively plan for and accommodate increased demand through electrification and further penetration of DERs” such as storage, microgrids, and EVs.⁹ This planning should include “modeling demand growth and prioritizing grid upgrades where they are most needed to accommodate anticipated electrification,” including “fleet and port electrification.”¹⁰ But despite being listed as an important BPU action in the EMP over two years ago, Guidehouse’s presentation on the Draft Study lists IDP as being the furthest from implementation readiness of its recommendations.¹¹ This planning cannot wait. Significant incremental load growth is expected in the near future, driven by already-adopted regulations including the ACT rule. The BPU must move IDP from goal to reality and provide the EDCs with guidance on how this planning must be completed.

Along with the recommendation that the BPU direct the EDCs to begin robust, coordinated distribution grid forecasting and planning, EDF agrees with the Draft Study’s statement that emerging types and combinations of DERs will require the BPU and EDCs to reconsider the adequacy of current electricity tariffs.¹² Even without discharging to the grid, DERs can provide substantial grid benefits, such as peak shaving, load shifting, and ancillary services. Managed charging of EVs, for example, has substantial potential as a flexible load, whether that flexibility occurs through direct control by the EDC, demand response programs, or price signals influencing customers’ charging behavior. These benefits are magnified when the flow of electricity becomes bidirectional. Customers should be encouraged to deploy these technologies in a grid-beneficial manner with price signals that appropriately compensate them for the value of services they provide to the grid. New rate designs could include new TOU rates, hourly

⁹ EMP, *supra* note 3, at 176.

¹⁰ *Id.*

¹¹ See NJBPU & Guidehouse, Presentation: Grid Modernization Study Draft Findings and Recommendations, at 6 (June 27, 2022),

https://njcleanenergy.com/files/file/GridMod/Stakeholder%20Meeting%204_DraftReportReadout.pdf.

¹² Draft Study, *supra* note 6, at 40 (“Emerging technologies and processes such as hybrid DER interconnection, microgrids, battery energy storage, and EV supply equipment will require additional tariff provisions (e.g., standby purchased electric power tariffs for qualifying facilities and cogeneration), particularly where part of the hybrid resource involves a technology eligible for net metering and part of the hybrid resource does not.”)

pricing, standby rates, or any number of innovative proposals being piloted and implemented across the country. As EDF has argued in other recent BPU proceedings, rate design reform efforts are needed now, while the deployment of advanced metering infrastructure is underway in New Jersey, in order to effectively support and leverage the expected new sources of load such as EVs.¹³ Pairing these rate design efforts with the Board’s larger grid modernization would allow these efforts to be developed cohesively rather than in discreet silos.

Finally, the BPU must align its efforts not only with the goals of the EMP, but with the decarbonization timeline established by the EMP and other state policies. The Global Warming Response Act of 2009 mandates reductions in economy-wide GHG emissions of 80% from 2006 levels by 2050,¹⁴ with Governor Phil Murphy’s Executive Order 274 setting an interim goal of 50% by 2030.¹⁵ The EMP’s 100% clean energy by 2050 goal is intended to allow the state to reach 100% carbon-neutral electricity generation and “maximum electrification of the transportation and building sectors” in order to meet the GHG emissions targets of the Global Warming Response Act. The BPU’s grid modernization efforts must be thoughtful so as to maximize the benefits and minimize the costs of the electric grid looking forward, but this must be paired with interim actions to address the largest hurdles to decarbonizing the grid and electrifying end uses today. Further action is needed on the part of the BPU and the EDCs to prepare the grid for additional demand for clean electricity that is already expected, and to encourage further decarbonization moving forward. This work must proceed expeditiously if the State’s ambitious, but achievable, goals are to be realized.

III. Feedback on Draft Grid Modernization Study Recommendations

In the context of the general comments provided above, EDF provides the following feedback on the specific recommendations included in the Draft Grid Modernization Study. The text of each recommendation is included in italics.

Recommendation #1: *a) Adopt the latest version of IEEE 1547 in NJ (IEEE 1547-2018 / IEEE 1547a-2020); and*

b) Update N.J.A.C.14:8-5 to indicate the latest version adopted in NJ is IEEE 1547-2018 / IEEE1547a-2020.

EDF fully supports Recommendation #1. IEEE 1547-2018/1547a-2020 supports several key grid services that IEEE 1547-2003 does not, such as requiring DERs to support local grid voltage. The updated standard also allows utilities to set a start-up ramp rate, which is vital for ensuring that DERs can be used to blackstart generators in the event of widespread grid outages. As DER deployment continues to grow in New Jersey, ensuring that interconnection standards are up-to-date is crucial for leveraging the full potential of these resources, which can minimize costs to ratepayers while simultaneously increasing grid resiliency.

Recommendation #2: *a) EDCs without an auditable electronic application tracking process*

¹³ Docket No. EO22030130, In the Matter of Ratepayer Impact Study of the New Jersey Energy Master Plan, *EDF Comments on Ratepayer Impact Study Update* (June 3, 2022).

¹⁴ Global Warming Response Act of 2009, N.J. STAT. ANN. §26:2C-37, *et seq.* (2009).

¹⁵ N.J. Exec. Order No. 274 (Nov. 10, 2021).

shall set in place interconnection application software that will provide a structured approach for data intake and notifications for all interconnection Levels;

b) EDCs shall install or upgrade to a software-based application platform capable of tracking key information throughout the interconnection application process. Such a platform would, at a minimum, be capable of tracking and automating the permitting process, documenting generation type and capacity, timelines, schedule and budget for upgrade commitments, and construction timelines, as well as reporting out this information in an easily auditable format. The software shall be capable of generating automatic email and online notifications to the customer with the goal of enforcing clearly defined tariff timelines, reducing the turnaround time for missing data. Ideally the software would be easily customizable by each EDC;

c) BPU to require EDCs to collect and store electronically a uniform set of inputs and key performance indicators (KPIs) such as timelines for all interconnection applications at all interconnection Levels;

d) BPU to compare KPIs relative to N.J.A.C. 14:8-5 timelines and require underperforming EDCs to implement software based improvements within a set timeframe; and

e) Make an FAQ webpage to provide guidance useful to interconnection customers engaging in the interconnection process.

EDF largely supports Recommendation #2. Transitioning all EDC's interconnection processes to an automated software platform would expedite the application process by providing all parties with greater order and clarity. We suggest modifying recommendation #2.b to recommend the BPU mandate application platforms that are largely standardized across EDCs. Standardizing interconnection application platforms between the EDCs would benefit customers who plan to submit applications in multiple service territories, such as a fleet electrifying its vehicles in locations statewide. This would also benefit the BPU, as oversight and tracking of the uniform set of KPIs across service territories would be simpler with less variation in application processes.

EDF also recommends modifying Recommendation #2.d. Assessment of EDC performance based on uniform KPIs is beneficial, and should be expanded to recognize improvements to the interconnection application process that are not software-based. Even with well-functioning software, other problems such as insufficient staffing or training may be creating bottlenecks in the process.

Finally, the Study Recommendations do not address how KPIs will be established, what the timeframe for implementing improvements will be, and the extent to which external parties will be able to contribute to these. These are important questions that must be addressed by Guidehouse and the BPU before implementation can begin.

Recommendation #3: *Update N.J.A.C.14:8-5 to require uniform data granularity and update frequency for capacity map tools using industry standard methods: a) Update capacity maps at least yearly, or when change in generation on a feeder exceeds an EDC specified amount, or when the aggregate change in load exceeds an EDC specified amount;*

b) EDCs to develop a shared lexicon to label their maps;

- c) Require identification of equipment potentially requiring a system upgrade on the hosting capacity maps (e.g., voltage controllers, protective relays, communication systems, etc.); and*
- d) Display a uniform unit cost guide for system upgrades on hosting capacity maps.*

EDF largely supports Recommendation #3. Having uniform, public, up-to-date hosting capacity maps is important for applicants to know where they can install without major delays or upgrades and would help with long term planning of companies, such as fleets, looking to develop a transition plan. However, the aggressive decarbonization goals of the EMP may mean that yearly updates to these maps, and basing map data on currently available capacity (rather than including applications in the queue), do not provide sufficiently granular data to interested parties. For example, several fleets currently served by the same feeder may be looking to electrify simultaneously, but would not see the expected impact of the other fleets' electrification because each is still in the application process. Therefore, Recommendation #3.a should be modified to shorten the default timeframe for updating hosting capacity maps, and/or set the threshold for new capacity or load triggering revisions small enough to minimize the risk of applicants relying on outdated information.¹⁶ Moreover, the hosting capacity maps should be linked with the software-based interconnection process in Recommendation #2 to include projects that are under construction or for which an application has been submitted.

Additionally, the uniform cost guide in Recommendation #3.d would be beneficial for providing rough cost estimates to those considering submitting applications. But, there can be significant variability in costs for similar projects in different areas. The recommendation should include some method of accounting for this variability, as this would provide interested parties with more accurate estimates than solely publishing uniform average costs.

Recommendation #4: *a) Implement a pre-application process required for projects 500 kW and above, and optional for other projects;*

b) Implement a uniform fee structure for pre-applications process with the amount determined by the EDCs for each respective interconnection Level;

c) Make an FAQ webpage to provide guidance useful to the pre-application process;

d) For projects less than 500 kW, EDCs should develop detailed example applications and provide to interconnection applicants via their interconnection FAQ webpages; and

e) The Rule 21 outline calls for a fast-track project implementation process. A technical working group made up of the EDCs shall within six months develop a fast-track process appropriate to NJ for small inverter-based generators.

EDF largely supports Recommendation #4. A pre-application process can provide important information on expected changes in grid capacity by looking beyond those projects sufficiently developed to have submitted a full interconnection application. However, we

¹⁶ In its Notice of Proposed Rulemaking on interconnection reforms, FERC proposed requiring transmission providers update hosting capacity maps within 30 days of completion of a cluster study or re-study. Improvements to Generator Interconnection Procedures and Agreements, 87 Fed. Reg. 39,934, 39,944 (July 5, 2022).

caution that more information is needed on the cost of this process, particularly in the face of the high interconnection costs applicants face today. More emphasis is needed on how these costs can be minimized to encourage DER deployment. For example, the BPU should consider setting a cost cap for pre-application submission fees, and requiring that these fees be subtracted from subsequent application fees. The EDCs can also reduce labor, and resulting costs, for both themselves and for applicants by linking the pre-application and application processes in the same software platform.

Recommendation #5: *a) To address the issues such as non-controversial new equipment capabilities that are not straightforward for EDCs to implement, NJ BPU should convene a technical working group to develop adopt and develop into N.J.A.C.14:8-5, as appropriate for NJ, the most current specific guidance that incorporates practices, guidelines, and requirements such as those now included in IREC, California Rule 21, IEEE 1547, and similar sources;*

b) Create a tiered structure for documentation comprising the interconnection rules in NJ: (1) tariff, (2) business practice manual, and (3) handbook, where the handbook and business practice manual are updated annually, and the tariff is updated less frequently (e.g., on a three-year cycle) c) Each EDC should have one representative attend the IEEE 1547 working group annually to assure they align with the latest recommendations of industry experts;

d) The EDCs shall clarify technical criteria in N.J.A.C.14:8-5 to avoid overly conservative interpretations and re-evaluate on a regular basis;

e) A consultant should be assigned to work with EDCs to research, pursue, and enable on a continuous basis, the implementation of new equipment and technology capabilities in a manner which will support and improve safety and reliability. These new capabilities would include (but not be limited to) DERMS monitoring and control which will be necessary to track FERC Order 2222 wholesale participation and aggregation, adoption of existing IEEE 1547 smart inverter functionality such as Volt/VAR and Volt/Watt; and

f) The NJ BPU should provide a “regulatory sandbox” for stakeholders, including equipment vendors and the EDCs, to pilot new equipment capabilities, procedures, thresholds for technical studies (e.g., increasing Level 1 from 10 kW) and cost recovery pilots. The regulatory sandbox will allow stakeholders to align operational practices within the diverse sectors in each EDC service area while maintaining grid safety and reliability.

EDF fully supports Recommendation #5. Interconnection standards should be aligned for all EDCs in New Jersey, and there is no need to independently develop those standards given the existence of IREC, California’s Rule 21, IEEE 1547, and the like. A working group to synthesize and standardize these into one standard for New Jersey would be beneficial. Further consideration is needed regarding the logistics of such a group, including membership, intended deliverables, and the timeline for completing this work.

However, this process will take time, and action is needed in the near-term to facilitate DER deployment while this work is completed. Guidehouse and the BPU should consider what interim actions can be taken to accelerate DER interconnection while the working group completes its work. This should include leveraging readily transferrable interconnection rules in California’s Rule 21 such as the advanced testing requirements in UL 1741.

Recommendation #6: *a) NJ EDCs should implement a uniform streamlined flexible queue process across EDCs that would prioritize a “first ready, first through” approach to support viable projects and avoid clogging the queue for Level 1, Level 2, and Level 3 projects, while ensuring equity and fairness in the queue; and*

b) NJ BPU to direct the EDCs to form a stakeholder process to address a required list of queue improvements from the NJ BPU. Examples of required items are a cluster process, a fast-track process, milestone processes, penalties for withdrawing or maximum queue ‘parking time,’ identifying new thresholds for existing N.J.A.C.14:8-5 Level definitions, and planning a finite transition timeline to new interconnection processes.

EDF fully supports Recommendation #6, so long as the “first ready, first through” approach is paired with a robust process to understand and correct errors in applications and other factors that cause delays. This will be particularly important for those applicants who are not experienced DER developers, such as electrifying fleets, and may need additional EDC support throughout the interconnection process. In order to limit the interconnection queue’s responsibility for delays, and to encourage innovative deployments of DERs, considered reforms to the queue process should also include flexible interconnection options, and hybrid interconnection for those applicants looking to co-locate multiple types of DERs such as solar and storage, or solar and EV chargers. The FERC Notice of Proposed Rulemaking proposes several related reforms, including “first-ready, first-served,”¹⁷ hybrid interconnection,¹⁸ interconnection cluster studies,¹⁹ and procedures for modifying applications without further delays.²⁰ The BPU should consider how its distribution-level reforms can be aligned with FERC’s transmission-level efforts.

Recommendation #7: *a) NJ BPU should define a mechanism to be put in place to establish numerical cost and capacity thresholds above which grid modernization costs could be spread over a broader set of beneficiaries.*

EDF fully supports Recommendation #7. Grid modernization efforts, including interconnection reform, can produce benefits not solely for DER owners, but also for ratepayers and society as a whole through lower electricity costs, and less GHG emissions and local air pollution. Developing a mechanism for fairly spreading the costs of grid modernization that accounts for the benefits accruing to all ratepayers and all residents is critical for encouraging and accelerating DER deployment.

Recommendation #8: *a) EDCs should submit integrated DER and integrated distribution plans that will allow NJ to meet the EMP goals, and that outline the investments the EDCs will need to make, including cost benefit analysis for each grid component upgrade they say will be needed to meet the goals.*

EDF fully supports Recommendation #8. Integrated Distribution Planning, as called for in

¹⁷ Improvements to Generator Interconnection Procedures and Agreements, 87 Fed. Reg. 39,934, 39,942 (July 5, 2022).

¹⁸ *Id.* at 39,974.

¹⁹ *Id.* at 39,947.

²⁰ *Id.* at 39,976.

the EMP, is a critical component of grid modernization. The need for this planning will only grow as deployment of demand-side resources such as EV chargers and battery storage increases. The BPU must begin this process as soon as possible to ensure the EDCs are operating proactively, rather than reactively, towards the deployment of these technologies. In addition to the BPU setting a date by which the EDCs shall submit these plans, it should include guidance, taking into account stakeholder feedback, on what these plans should include. Each EDC's IDP process should include regular Distribution Grid Impact Studies ("DGIS") that considers the impact of incremental load, such as that from EV charging, as well as non-wires solutions as an alternative to expensive grid expansion. One EDC, Public Service Electric & Gas, agreed with stakeholders and received BPU approval as part of a settlement order to complete a DGIS as part of the IDP process.²¹ This requirement should be expanded and coordinated statewide.

Recommendation #9: *a) NJ BPU should provide a rulemaking that in light of EMP goals, non-renewable fuel sources should be separate from renewable sources (separately metered) and cannot be combined for net metering purposes, allowing full credit for renewable generation sources such as solar without penalty for co-located non-renewable source; and*

b) NJ BPU should consider allowing non-renewable fuel sources play in the net metering market, however at a reduced rate, or based on Avoided Energy Cost e.g., per Georgia Power.

EDF largely supports Recommendation #9. Separate metering for non-renewable fuel sources allows EDCs to choose cleaner, lower-cost resources to provide grid services. The recommendation should specify that for the purposes of interconnection, battery storage should be considered a clean source. Although charging batteries from the grid today necessarily means relying on some non-renewable generation, New Jersey's decarbonization goal means that the electricity stored and discharged by these batteries will continue to get cleaner over time. Separate policies can be implemented to encourage these batteries to be used in grid- and environmental-friendly ways, and to ensure their owners are properly compensated for services provided, but interconnection policies should not create a barrier to their deployment.

However, EDF disagrees with Recommendation 9.b. Meeting New Jersey's GHG emissions goals will require substantial reductions in fossil fuel consumption, and allowing behind-the-meter non-renewable sources to benefit from net metering would encourage their additional use. While battery storage can be incentivized to operate to maximize environmental benefits (including by charging as much as possible from non-emitting power sources and discharging at times of high grid emissions), non-renewable sources will always produce GHG emissions and local air pollution as part of their operation. Even if compensation for these sources is reduced to account for these harms, the harms would still occur whenever the source operates, harms that are disproportionately likely to harm residents in overburdened communities already suffering from pollution. Because the Board's grid modernization efforts are in response to the EMP, which itself sets a goal of 100% clean energy by 2050, reforms should be focused on facilitating and encouraging additional deployments of DERs

²¹ Docket No. EO18101111, In the Matter of the Petition of Public Service Electric and Gas Company For Approval of its Clean Energy Future – Electric Vehicle and Energy Storage ("CEF-EVES") Program on a Regulated Basis, *Decision and Order Approving Stipulation* (Jan. 27, 2021).

that are themselves renewable, such as solar and wind generation, or that facilitate additional use of renewable energy, such as load flexibility and storage, as they are vital components of EMP to meet the 100% clean goal and should not be penalized by interconnection fees or processes.

Thank you for the opportunity to provide these comments, and we look forward to future opportunities to engage in New Jersey's grid modernization efforts.