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July 19, 2022

Via Electronic Mail board.secretary@bpu.nj.gov
Carmen D. Diaz, Acting Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue,1ST Floor
P.O. Box 350
Trenton, NJ 08625-0350

Re: In the Matter of New Jersey Grid Modernization/ Interconnection Process
BPU Docket No. QO21010085

Dear Acting Secretary Diaz:

Please accept for filing these comments being submitted on behalf of the New Jersey Division of Rate Counsel ("Rate Counsel") in accordance with the Notice issued by the Board of Public Utilities ("Board") in this matter on April 19, 2022. In accordance with the Notice, these comments are being filed electronically with the Board's Secretary at board.secretary@bpu.nj.gov.

Please acknowledge receipt of these comments.

Thank you for your consideration and attention to this matter.

Respectfully submitted,

Brian O. Lipman, Esq.
Director, Division of Rate Counsel

By: */s/ Brian Weeks*
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Deputy Rate Counsel

BW
Enclosure
cc: Robert Brabston, BPU
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I/M/O New Jersey Grid Modernization
Interconnection Process
BPU Docket No. QO21010085

Grid Modernization Study: New Jersey Board of Public Utilities

Comments of the Division of Rate Counsel

July 19, 2022

I. Introduction

The Division of Rate Counsel ("Rate Counsel") is pleased to provide these comments to the Board of Public Utilities (the "Board" or "BPU") pursuant to the procedural schedule established by Board Notice, revised April 19, 2022, in *I/M/O the new Jersey Grid Modernization/ Interconnection Process*, BPU Docket No. QO21010085 ("Grid Mod Interconnection"). On June 13, 2022, Guidehouse provided a draft report, *Grid Modernization Study: New Jersey Board of Public Utilities* ("Draft Report").[1]

The draft report makes nine Findings and Recommendations ("F&Rs"). Rate Counsel appreciates the effort that the Board has undertaken in retaining Guidehouse to review the interconnection process within New Jersey. Rate Counsel agrees with many of Guidehouse's draft recommendations that will hopefully improve the interconnection process for all stakeholders and lead to the interconnection of additional renewable energy resources within the state. However, Rate Counsel has concerns about some of the recommendations. Rate Counsel strongly opposes those Guidehouse F&Rs that would impose additional costs on ratepayers to upgrade the electric grid to accommodate new renewable energy projects. Allocation of any grid interconnection costs must comply with traditional cost-causation utility ratemaking principles.

New Jersey deregulated electric generation by statute over 20 years ago.[2] Ratepayers are not partners or investors in such unregulated ventures. Under this model, an investor uses its own capital and hopes to earn a return on that investment. These privately-funded projects benefit from access to the utility's grid and the interconnection upgrades required solely because of a particular project should be borne by the cost-

[1] Guidehouse Inc. *Grid Modernization Study: New Jersey Board of Public Utilities*. Draft June 13, 2022.
[2] Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 et seq.

causing project seeking access to the grid. Otherwise, ratepayers will fund projects where private investors will be seeking a return. This would result in ratepayers funding the project and bearing the risk, but to the extent the project succeeds, a private entity will reap all the financial benefit. Therefore, if ratepayers must pay for costs to upgrade the grid to accommodate renewable energy projects, then the subsidies that ratepayers would pay for that project under existing renewable energy programs should be reduced proportionately.[3] Imposing additional costs on ratepayers to supplement the profitability of an unregulated investment is simply unfair.

Similarly, Rate Counsel opposes accelerated recovery of the electric distribution companies' ("EDCs'") costs to replace obsolete equipment to accommodate renewable energy projects. The Board has already approved, or is reviewing, proposals by each EDC (as well as by gas utilities) for projects that are appropriate for accelerated recovery to improve the reliability of their infrastructure. Additional accelerated recovery is unneeded and unnecessarily burdensome on the State's ratepayers. Rather, the public utilities should continue to perform their duty of providing safe and reliable service by replacing obsolete equipment in the normal course of business, and recovering their costs through traditional utility ratemaking.

Specifically, Rate Counsel opposes Guidehouse's recommendation that the BPU define a mechanism that establishes numerical cost and capacity thresholds above which grid modernization costs would be spread over a broader set of "beneficiaries." This is particularly troubling, as it will raise ratepayer costs and risks for the benefit and profit of certain private investors. With ratepayers taking on the risk, projects that are otherwise uneconomic or inappropriately sited will likely be built, ultimately resulting in higher ratepayer costs without any real, demonstrable benefit to ratepayers. Ratepayers should

[3] Ratepayers pay substantial subsidies for solar distributed energy resource ("DER") projects in the form of Solar Renewable Energy Certificates ("SRECs"), Transition Renewable Energy Certificates ("TRECs") and Solar Renewable Energy Certificate IIs ("SREC-IIs"), and provide additional subsidies in the form of net metering credits for behind-the-meter solar and Community Solar facilities. According to estimates prepared by the Board's Clean Energy staff, the cost of the SREC and TREC programs in Energy Year 2021 was nearly $880 million. See, "Energy Year 2021 RPS Compliance Results 2004 to 2021," available at: https://njcleanenergy.com/files/file/rps/EY21/EY21%20RPS%20Compliance%20Results%202004%20to%202021%20Final%202022_05_17.pdf. These costs will only increase as SREC-II projects come online. Further, Staff's estimate does not include the substantial additional subsidies that ratepayers provide in the form of net metering credits for behind-the-meter solar and Community Solar facilities.

not be a source of capital for private ventures. Moreover, Guidehouse makes a blanket statement that, "[t]he NJ economy will benefit from increased local jobs, private sector investments, accelerated clean resource adoption and improved resilience."[4] It is inappropriate to consider the benefits of increased spending without considering the costs and the impact of those costs. While there may be additional jobs, higher or accelerated investment will lead to higher utility rates. Higher rates will have a similar ripple effect on the economy: households will have less discretionary income (assuming they are able to pay their utility bills) and employers will have higher costs, leading to decisions including relocation out of state or reductions in workforces. For example, during 2021, U.S. retail electricity rates rose at the fastest rate since 2008.[5] Affordability is imperative and appears to be a consideration absent from the Draft Report.

Rate Counsel also opposes Guidehouse's recommendation to broaden net energy metering programs to include non-renewable fuel sources. Such expansion would be contrary to the Energy Master Plan ("EMP") objective of phasing out carbon-producing energy sources, and could result in adverse consequences such as the inefficient location of generation resources. In addition, ratepayers could be burdened with above-market costs for distributed generation, even as they are still paying for stranded costs for the non-utility generation facilities developed under the Federal Public Utility Regulatory Policies Act of 1978, P.L. 95-617 ("PURPA").

Other Guidehouse recommendations will require additional discussion to ensure that all stakeholders have a common set of definitions and parameters to avoid duplicative or conflicting efforts across the EDCs. Rate Counsel values consistency and comparability of policies and plans across the EDCs. Rate Counsel is willing to work with stakeholders on the F&Rs where Rate Counsel would like more clarity.

The nine F&Rs are detailed in the discussion below.

[4] Draft Report at p. 1.

[5] U.S. Energy Information Administration, "During 2021, U.S. retail electricity prices rose at fastest rate since 2008" (Mar. 1, 2022) (available at https://www.eia.gov/todayinenergy/detail.php?id=51438#). See also EIA expects significant increases in wholesale electricity prices this summer (Jun. 16, 2022) (available at https://www.eia.gov/todayinenergy/detail.php?id=52798).

II. Discussion

a. F&R #1 N.J.A.C. 14:8-5 IEEE 1547 Reference is out of date

Guidehouse summarizes its finding as, "N.J.A.C. 14:8-5 currently references IEEE 1547-2003 however IEEE has released a 2018 version IEEE 1547-2018 and an amendment IEEE 1547a-2020."[6] Guidehouse makes the following recommendations:[7]

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

Rate Counsel supports Guidehouse's proposal to update N.J.A.C. 14:8-5 to reflect the most current Institute of Electrical and Electronics Engineers ("IEEE") standards for interconnection and interoperability of distributed resources with electric power systems.[8] IEEE 1547-2003 was adopted when distributed energy resources ("DER") were less prevalent and there was more emphasis on worker and public safety.[9] IEEE 1547-2018 and IEEE 1547a-2020 recognizes that increased penetration of DERs are impacting systems.[10] The more recent standards put more emphasis on system stability, which is critical as New Jersey continues to integrate more DERs. IEEE notes that eight states have adopted or will adopt IEEE 1547-2018 in 2022.[11] Two more states have approved, but not yet set a deadline for adoption, and one state has a reference to the "latest" IEEE 1547 standard.

Rate Counsel also supports the idea of a regular process to review updates to IEEE 1547 that may warrant updates to N.J.A.C. 14:8-5 to reflect updated interconnection and interoperability standards. This process should include stakeholders and should be limited to technical changes to IEEE 1547 that should be reflected in N.J.A.C. 14:8-5.

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[6] Draft Report at p. 73.
[7] Draft Report at p. 2.
[8] IEEE. IEEE Std 1547-2018. Available at https://sagroups.ieee.org/scc21/standards/1547rev/
[9] National Rural Electric Cooperative Association. Guide to the IEEE-1547-208 Standard and its Impacts on Cooperatives. March 2019. Page 3. Available at https://www.nrel.gov/grid/ieee-standard-1547/assets/pdfs/guide-to-ieee-1547-2018-march-2019.pdf.
[10] Id. Page 7.
[11] Id.

b. F&R #2 There are opportunities to streamline the interconnection process

Guidehouse summarizes this finding as:[12]

> There are opportunities to streamline and automate the interconnection process. Applications are sent back to customers by EDCs based on missing or incorrect information, which is inefficient. Interconnection application status and key information is tracked using a different process and different software for each EDC, particularly for Level 2 and Level 3 interconnection requests, including key milestones such as timelines, schedule and budget for upgrade commitments, and construction timelines. This makes it difficult for the NJ BPU to conduct audits of interconnection process key performance indicators across EDCs.
>
> The EDCs do not collect fees for Level 1, yet a large percentage of applications are presently Level 1, with a projected increase of Level 1 applications in the future. For example, an increase in smaller (Level 1 <= 10 kW) interconnection applications is expected due to a projected increase in DER aggregation projects enabled by the adoption of FERC Order 2222.

Guidehouse makes the following recommendations:[13]

- EDCs without an auditable electronic application tracking process shall set in place interconnection application software that will provide a structured approach for data intake and notifications for all interconnection Levels
- 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 and reducing the turnaround time for missing data.

[12] Draft Report at p. 75.
[13] Draft Report at p. 2.

Ideally, the software would be easily customizable by each EDC

- 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
- 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 time frame
- Make an FAQ webpage to provide guidance useful to interconnection customers engaging in the interconnection process
- NJ EDCs should charge Level 1 Application fees, with the amount of the fees to be determined by each EDC

Rate Counsel is conceptually supportive of the ideas of streamlining and standardizing the interconnection process for interested parties. Guidehouse specifically recommends that the EDCs upgrade or install "software-based application platform capable of tracking key information throughout the interconnection application process."[14] It is unclear if each EDC would require different software and/or how much the software would cost, and whether those costs would be recovered from ratepayers or covered by the EDCs' grid interconnection application fees. The cost of software, and how that cost will be recovered, is a critical component to evaluating this recommendation. The EDCs should also explore synergies, such as whether the same software application can be utilized by all of the EDCs through a single site that consolidates all of the applications and if the EDCs may utilize the same application form.[15] In the same set of recommendations, Guidehouse recommends that the EDCs charge Level 1 Applications (under 10 kW) an application fee that is determined by each EDC.[16] Guidehouse does not state how much the fee should be. Rate Counsel recommends that the fee be set at a level that fully covers the transaction costs of processing interconnection applications.

Rate Counsel notes that the Draft Report provides a summary of the Level 1, 2,

[14] Draft Report at p. 76.
[15] If there is a single state site, there may be an opportunity for customers of New Jersey's municipal utilities to also participate.
[16] Draft Report at p. 76.

and 3 permission-to-operate ("PTO") capacity for 2021.[17] While this information is helpful, Rate Counsel is also interested in knowing what the distribution of applications has been in recent years, and what number of applications has been rejected or withdrawn over the same period.[18] The number of rejected and withdrawn applications would provide information on the extent of the issues identified by stakeholders.

Within the report, Guidehouse commented that one stakeholder emphasized the need for a better system of filing complaints.[19] Rate Counsel agrees that any process that streamlines and standardizes the interconnection process should also have a transparent and responsive process to address complaints.

c. F&R #3 Existing online EDC hosting capacity maps are inconsistent across EDCs

Guidehouse summarizes its finding as:[20]

> Existing online EDC hosting capacity maps, including data update frequency and underlying approach to calculating interconnection capacity headroom, appears inconsistent across EDCs
>
> Hosting capacity information is inconsistently labeled across EDCs resulting in the quantity of closed circuits potentially being overestimated by stakeholders

To address these findings, Guidehouse makes the following recommendations:[21]

- Update N.J.A.C. 14:8-5 to require uniform data granularity and update frequency for capacity map tools using industry standard methods
- 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
- EDCs to develop a shared lexicon to label their maps

[17] Draft Report at p. 29.
[18] Rate Counsel notes that the roll out of Advanced Metering Infrastructure could assist and complement the streamlining of the interconnection application process.
[19] Draft Report at p. 28.
[20] Draft Report at p. 77.
[21] Draft Report at p. 3.

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

Rate Counsel is supportive of the recommendation to standardize hosting maps across the four EDCs. Guidehouse noted that PSE&G reported 150 closed circuits out of 1,936 circuits and that ACE reported 49 out of 327 total circuits were closed. Guidehouse noted that neither JCP&L nor RECO reported any information on the number, if any, of their closed circuits.[22] Hosting maps that are uniformly similar across EDCs would be helpful for stakeholders, as would complete, accurate, and timely information. Rate Counsel is interested in understanding why neither JCP&L nor RECO provided any closed circuit information and when both utilities will start to provide the requested information. Guidehouse notes that the inconsistent labeling of hosting maps may result in an overestimation of the number of closed circuits by stakeholders. Rate Counsel concurs that consistent labeling across the EDCs may improve identifying which circuits are actually closed. The EDCs should also explore if all of the maps can be hosted on a single site for the entire state.[23]

Within the report, Guidehouse commented that stakeholders recommended that existing hosting capacity thresholds should be updated.[24] Rate Counsel is interested in knowing whether increasing the existing hosting capacity thresholds would result in additional circuits being closed or opened to new renewable energy projects.

One of Guidehouse's recommendations would require the EDCs to identify equipment required for system upgrades.[25] Rate Counsel agrees that presenting this information consistently across the EDCs should be done. However, as noted above, Rate Counsel opposes requiring ratepayers to pay the costs to upgrade the electric grid or replace "obsolete" equipment to accommodate unregulated renewable energy projects. This is especially true where ratepayers would pay an additional subsidy, on top of the subsidies ratepayers already pay for renewable energy projects, to supplement the

[22] Draft Report at p. 30, Table 3-11.
[23] If there is a single state site, there may be an opportunity for customers of New Jersey's municipal utilities to also participate.
[24] Draft Report at p. 32.
[25] Draft Report at p. 76.

profitability of an investment by an unregulated industry.[26] The responsibility of upgrade costs to accommodate new distributed generation projects should remain with the entity proposing the unregulated renewable energy project. The Board should adhere to cost-causation regulatory principles to protect ratepayers from paying charges for interconnection services that do not provide benefits to them. Insulating unregulated renewable energy developers from the actual costs of interconnection can lead to imprudent utility infrastructure, unnecessary spending, poorly-sited facilities, and stranded assets that are not used and useful in the provision of utility service. None of these risks – nor the associated costs – should be passed on to ratepayers. Additionally, any discussion of imposing additional costs on ratepayers for grid interconnection upgrades should consider reducing the subsidies the proposed venture would receive under existing renewable energy programs. Otherwise, the investors in the unregulated venture will receive a double subsidy. This would be highly unfair to ratepayers.

d. F&R #4 There is no way to accelerate interconnection projects within the NJ interconnection rules.

Guidehouse summarizes its finding as:[27]

> There is currently no pre-application process in NJ. Industry advocates in NJ suggested that a pre-application process will provide valuable information about available grid capacity and likely upgrade costs without waiting for a full interconnection study or application process.
>
> Additionally, there is no fast-track process in NJ by which projects with no electrical or cost allocation impacts on other projects are eligible to apply for a feasibility study to be completed on a faster timeline than the normal study process.

Guidehouse makes the following recommendations:[28]

[26] F&R #3 defines a "closed" circuit as one where "an upgrade to infrastructure, including wires and transformers, would be required to accommodate the requested interconnected generation … and the required upgrades are not economically feasible for the application at hand. Draft Report at p. 29, fn. 23 (emphasis added).
[27] Draft Report at p. 79.
[28] Draft Report at p. 79.

- Implement a pre-application process required for projects 500 kW and above, and optional for other projects.
- Implement a uniform fee structure for pre-applications process with the amount determined by the EDCs for each respective interconnection Level
- Make an FAQ webpage to provide guidance useful to the pre-application process
- For projects less than 500 kW, EDCs should develop detailed example applications and provide to interconnection applicants via their interconnection FAQ webpages
- 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.

Guidehouse proposes two primary actions to address its findings: 1) implement a pre-application process, and 2) fast-track the feasibility study where there are no electrical or cost allocation impacts on other projects. The EDCs would need to identify circuits where a fast-track process would be acceptable.

Rate Counsel is supportive of exploring a process that would allow for the fast-tracking of pre-qualified projects. However, Rate Counsel has concerns that the fast-track process may have an unintended consequence of skewing project siting to specific locations or municipalities that may have difficulty integrating a sudden influx of large projects. For example, developers may look to site multiple projects on circuits that have adequate hosting capacity and this could result in a number of projects being built in a short period of time. For low-density communities, a rapid influx of projects may, or may not, be a welcome change to historical land usage. Moreover, economically, socially, and environmentally disadvantaged communities have historically borne the burden of utility infrastructure and the Board should remain sensitive to the local experience of Overburdened Communities where significant amounts of renewable generation is being planned or considered. Rate Counsel recommends that a fast-track process must maintain stakeholder engagement.

e. F&R #5 New Jersey EDCs do not have EDC-specific up to date interconnection rules or tariffs

Guidehouse summarizes its finding as:[29]

> New Jersey EDCs have adopted N.J.A.C. 14:8-5. However, N.J.A.C. 14:8-5 does not address EDC-specific interconnection issues in detail.
>
> Communication, telemetry, and backflow protection criteria in N.J.A.C. 14:8-5 do not conform to modern interconnection technology. Common non-controversial new equipment capabilities, such as DERMS monitoring and control and IEEE 1547 smart inverter functionality, have barriers to implementation. Volt/VAR capability is not acknowledged in the generation application process or compensated in grid operation, and barriers to installation of storage products and meter collars that are approved in other states remain to be overcome in NJ [internal citations omitted]

Guidehouse makes the following recommendations:[30]

- 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.
- 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)
- Each EDC should have one representative attend the IEEE 1547 working group annually to assure they align with the latest recommendations of industry experts
- 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

[29] Draft Report at p. 80.
[30] Draft Report at p. 81.

- 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
- 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.

Rate Counsel is supportive of many of the elements proposed within this F&R, but Rate Counsel also requests some clarifications to understand the implications of some of the elements. Specifically, Rate Counsel is supportive of the idea of a technical working group to review: (1) 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), and (2) how they could be adopted within N.J.A.C. 14:8-5. As the DER deployment environment continues to change and evolve, the technical working group will need to stay current with updated practices and guidelines to ensure that DER systems will not negatively impact the electric grid, while also allowing the EDCs to provide safe and reliable service. Rate Counsel believes that this working group could also assist in the development of the tiered documentation recommendation made by Guidehouse. Rate Counsel supports the idea of the IEEE 1547 working group that could assist with this recommendation and the recommendation in F&R #1.

Rate Counsel requests more information regarding the scope, assignment, and impact of the consultant's 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. Rate Counsel is interested in understanding the role of the consultant, and who would pay for the consultant's work.

Rate Counsel also requests more information regarding who would pay for the implementation of new capabilities that include, but are not be limited to, DERMS monitoring and control which will be necessary to track FERC Order 2222 wholesale participation and aggregation, and adoption of existing IEEE 1547 smart inverter functionality such as Volt/VAR and Volt/Watt control. These capabilities may enhance services available to EDCs, but the capabilities require a thoughtful and deliberate review before they are implemented across the EDCs' territories.

In Section 3.9.3 of the Draft Report, Guidehouse describes the concept of the "regulatory sandbox."[31] Rate Counsel understands that the purpose of the "regulatory sandbox" would be to encourage regulatory innovation by providing a limited waiver from normal regulations and requirements.[32] Rate Counsel is conceptually supportive of a "regulatory sandbox" that could pilot new equipment capabilities, procedures, thresholds for technical studies and cost recovery. The "regulatory sandbox" would provide useful information for stakeholders so long as it is clearly understood that the "regulatory sandbox" does not set precedents for full-scale deployment, nor does the regulatory sandbox absolve the EDC from its obligations as a New Jersey electric distribution company. Full-scale deployment would most likely require approval by the Board, and of course would still be subject to the Administrative Procedures Act as well as reasonableness and prudency thresholds.

However, Rate Counsel advises against reliance upon any technology without a full understanding of its application and implications, including cost. For example, Guidehouse does not define "blockchain for micro-grid applications."[33] A more fulsome discussion is required before any new technology should be considered.

Rate Counsel also advises against reliance upon regulations from other jurisdictions. For example, Guidehouse does not provide any details on its reference to "regulatory exemptions" by Ofgem in the United Kingdom.[34] "Ofgem" is The Office of Gas and Electricity Markets, which regulates the monopoly companies which operate the

[31] Draft Report at p.41.
[32] Guidehouse. Electricity Regulation for a Customer Centric Future. 2Q2020 P.26 Available at https://guidehouse.com/-/media/www/site/downloads/energy/2020/ghelectricityregulationforacustomercentricfuture.pdf.
[33] Draft Report at p. 80.
[34] Draft Report at p. 80, fn. 65.

natural gas and electricity networks in the U.K. It operates in a statutory framework set by the Parliament of the U.K.[35] Those statutes include, among others, electric and gas utility price controls and enforcement, making the legal and regulatory system much different than New Jersey's.

f. F&R #6 The generator interconnection application queueing and cost allocation process in New Jersey is serial

Guidehouse summarizes its finding as:[36]

> The generator interconnection application queueing and cost allocation process in New Jersey is overwhelmingly a serial process for Level 1, Level 2, and Level 3 generator interconnection applications. The current process also follows the FERC (transmission) small generator pro forma document.

Guidehouse makes the following recommendations:[37]

> - 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.
> - 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.

Rate Counsel is generally supportive of the recommendation to develop and implement a more uniform and streamlined queue process to support viable projects and to avoid clogging the queue, while ensuring equity and fairness. Rate Counsel believes that queue improvements should discourage developers from "queue-squatting"

[35] Ofgem. "Our roles and responsibilities." Available at https://www.ofgem.gov.uk/about-us/our-role-and-responsibilities.
[36] Draft Report at p. 82.
[37] Draft Report at p. 81.

reservations, thereby preventing interconnection by other projects that are better prepared to proceed. Rate Counsel recommends that a fast-track process should have a limited open window for developers to participate. Rate Counsel also recommends that Guidehouse's list of queue improvements be clearly defined and consistent across all the EDCs in line with Guidehouse's F&R #3.

Rate Counsel notes that the Guidehouse draft report proposes adopting cost sharing of necessary grid upgrades by all facilities who want to tie into the grid in a certain area during a certain time period.[38] Rate Counsel would support this recommendation if it means that the renewable energy developers will share all the grid upgrade costs required for their projects among themselves. Ratepayers, however, should not foot the costs for the upgrades required for these projects.

Within the report, Guidehouse commented that Bloom Energy recommended re-approaching cost allocation for system upgrades in ways beneficial to EDCs and developers and to develop mechanisms that will allow customers to have both Net Energy Metering ("NEM") and non-NEM DERs behind the same meter.[39] Rate Counsel opposes such an approach since it could result in ratepayers paying for upgrade costs that should be the responsibility of the developer or the on-site customer. These costs would be in addition to the subsidies ratepayers would already pay under the Board's existing renewable energy incentive programs. Shifting upgrade costs to ratepayers is contrary to cost-causation regulatory principles by requiring ratepayers to pay for services that do not provide benefits to them.

g. F&R #7 Cost allocation and cost recovery options for accelerated interconnection of renewables have not been defined in NJ

Guidehouse summarizes its finding as:[40]

> The BPU has not set a policy for demonstrating the criteria by which the need for grid modernization would be assessed to justify a grid-forward grid modernization upgrade approach, nor a policy for establishing thresholds for pro-rata cost allocation.

[38] Draft Report at p. 60, Table 4-8.
[39] Draft Report at p. 35.
[40] Draft Report at p. 83.

Guidehouse makes the following recommendations:[41]

> 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.

Rate Counsel notes that the Draft Report states that "Cost allocation and cost recovery options for accelerated interconnection of renewables have not been defined in NJ."[42] Further, the term "beneficiaries" has not been defined in Guidehouse's recommendations. Rate Counsel recommends that the cost recovery of any grid interconnection costs must comply with traditional cost-causation utility ratemaking processes and principles.

Rate Counsel has concerns that F&R #7 would allow the EDCs to seek accelerated cost recovery for the interconnection of renewables. Moreover, Rate Counsel notes that, during the June 27, 2022 presentation, Guidehouse proposed to spread grid upgrade costs onto ratepayers in order to accommodate more renewables. On pages 68 and 69 of the Draft Report, Guidehouse noted that ratepayers could pay to upgrade electric grid equipment to incorporate more renewable energy if that equipment is "obsolete," i.e., that it needs replacing for "reliability and resiliency."[43]

As noted above, electric generation is deregulated in New Jersey. However, under the Board's current incentive programs, ratepayers already pay to subsidize renewable energy projects. F&R #7 would require ratepayers to pay additional costs to upgrade the grid to accommodate these renewable energy projects, and thereby to provide a double subsidy for these investments. If the Board is considering such "sharing" of grid upgrade costs to accommodate a renewable energy project, then the subsidies that ratepayers would pay for that project under existing renewable energy programs should be reduced proportionately. Imposing additional costs on ratepayers to ensure the profitability of an unregulated investment is simply unfair.

[41] Draft Report at p. 84.
[42] Draft Report at pp. 92 and 93.
[43] Draft Report at pp. 68 and 69.

Similarly, Rate Counsel opposes accelerated recovery of the EDCs' costs to replace obsolete equipment to accommodate renewable energy projects. Even if this were permitted, the EDCs would have to demonstrate that replacing the "obsolete" equipment was prudent and for the purpose of providing safe and reliable service if it were to seek recovery from ratepayers. Infrastructure that does not meet that standard could be deemed imprudent and therefore not recoverable from ratepayers. The investor in the new renewable energy project should pay these grid upgrade costs. If the equipment is simply obsolete, regardless of any specific renewable energy project, the EDC should recover those costs under either their approved accelerated infrastructure investment cost recovery program, if it so qualifies, or through the traditional ratemaking process and, in both cases, must demonstrate prudency. The EDCs at all times retain a duty to provide safe and reliable service.

As noted earlier, PSE&G and ACE already have provided a list of closed circuits. JCP&L and RECO should also identify lists of closed circuits. If there is an integrated distribution planning process, these closed circuit lists could inform the prioritization of distribution system work that, when completed, may increase hosting capacity for new interconnections. This could all be part of current distribution system planning and/or under an integrated distribution plan that is part of F&R #8.

Rate Counsel opposes a cost allocation and cost recovery process that shifts grid upgrade costs onto ratepayers for the sole benefit of private, unregulated developers. Attribution of interconnection costs to the cost-causer has been a normal cost of doing business for over a century. Rate Counsel has concerns about an open-ended grid upgrade investment process that insulates unregulated renewable energy developers from the actual costs of their projects. Such a policy does not send accurate price signals to developers on the most efficient and economical location for renewable generation, nor does it provide any additional benefits to ratepayers. Rather, ratepayers will likely be asked to subsidize imprudent utility infrastructure, unnecessary spending, poorly-sited facilities, and stranded assets that are not used and useful in the provision of utility service. Further, it shifts the risk of these projects not being completed to ratepayers with no commensurate benefit. Once ratepayers fund the upgrade, there is no guarantee the project will be built. If it is built, the profits (which will be higher based on lower

required initial capital investment) will be retained by the private unregulated entity. None of these risks – nor the associated costs – should be passed on to ratepayers and could be deemed imprudent for purposes of rate recovery.

Rate Counsel supports maintaining the current traditional utility ratemaking process. Rate Counsel's position reflects well-established law. Any new cost sharing mechanism would enter a new paradigm where ratepayers, including the most economically vulnerable, would essentially subsidize the startup costs of well-funded and sophisticated for-profit ventures, with no sharing of the profits.

h. F&R #8 EDCs do not currently submit integrated DER plans as recommended in the EMP

Guidehouse summarizes its finding as:[44]

> Integrated DER plans are an effective basis for planning distribution grid expansion and identifying cost recovery for grid modernization, and are recommended in the EMP. EDCs do not currently submit integrated DER plans.

Guidehouse makes the following recommendations:[45]

> - 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.

Rate Counsel is supportive of the idea of integrated DER planning and integrated distribution planning. A good integrated DER and distribution plan should provide a roadmap and clarity of where and what distribution investments will be made that would improve the safety and reliability of the distribution grid, while also allowing for increased and more thoughtful integration of distributed energy resources. Rate Counsel notes a recent presentation from Lawrence Berkeley National Laboratory ("LBNL") that

[44] Draft Report at p. 84.
[45] Draft Report at p. 84.

identified several goals of the integrated distribution planning process.[46] These goals are restated below:[47]

> - Makes transparent utility plans for distribution system investments holistically, before showing up individually in a rider or rate case
> - Provides opportunities for meaningful PUC and stakeholder engagement
> - Can improve outcomes — more data, community input, review
> - Considers uncertainties under a range of possible futures
> - Considers all solutions for least cost/risk
> - Motivates utility to choose least cost/risk solutions
> - Enables consumers and 3rd party providers to propose grid solutions and participate in providing grid services

Rate Counsel recommends that the Board convene a technical working group to define and determine the guidelines and parameters for integrated DER and distribution plans, so that all of the EDCs will provide consistent and comparable integrated plans across the State. Rate Counsel would like to see DER and distribution plans that are beneficial to the distribution system at *least cost and risk*. Rate Counsel also recommends that the integrated DER and distribution planning include other factors that might influence local loads, including but not limited to electric vehicle charging as referenced under EMP Strategy #5.[48] Integrated DER and distribution plans may address environmental justice issues across the State.

i. F&R #9 Non-renewable fuel sources are not able to aggregate their generation with that of renewable generators and count the generation toward the NEM program

Guidehouse summarizes its finding as:[49]

> N.J.A.C. 14:8-5 only allows Class I renewable resources (e.g., solar technologies, photovoltaic technologies, wind energy, fuel cells powered by renewable fuels, geothermal

[46] LBNL. Integrated Distribution Planning Overview. New Mexico Public Regulation Commission, Grid Modernization Webinar Series. March 3, 2022. Available at https://eta-publications.lbl.gov/sites/default/files/schwartz-integrated-distribution-planning-overview-20220303-fin.pptx.pdf
[47] LBNL. 2022. Slide 20.
[48] Draft Report at p. 5.
[49] Draft Report at p. 85.

> technologies, wave, or tidal action, and/or methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner) to participate in the NEM program. Non-renewable fuel sources are not able to aggregate their generation with that of renewable generators and count the generation toward the NEM program.

Guidehouse makes the following recommendations:[50]

> - 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
>
> - 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

Rate Counsel supports Guidehouse's recommendation for a rulemaking to clarify that renewable generation must be metered separately from non-renewable generation to prohibit combination with non-renewable sources for net metering purposes. If a rule is proposed, it should include provisions to assure that net metering credits are not provided for non-renewable generation and is not allowed to increase the amount of exported energy that is eligible for net metering. It is Rate Counsel's understanding that Board Staff follows certain protocols to assure that net metering credits are not provided for non-renewable energy. Under these protocols, either (1) the customer's system must be designed to prevent the operation of the non-renewable generation at the times when the renewable generation is exporting to the system, or (2) the customer must install interval metering so that the amount of non-eligible generation can be subtracted from total

[50] Draft Report at p. 85.

exported energy to determine the amount that is eligible for net metering.[51] If a rule is issued, it should incorporate these or similar protocols.

Rate Counsel strongly opposes Guidehouse's recommendation to consider allowing net metering for non-renewable resources.

The Guidehouse Draft Report notes that:

> The intersection of NEM-participating resources and KPIs pertaining to New Jersey's clean energy future such as greenhouse gas reduction offsets should be considered. To be able to accomplish their de-carbonation goals some states are allowing green hydrogen (hydrogen created from renewables), fuel cells, etc. Many fuel sources are considered clean fuel sources, even if they are not considered renewable sources.[52]

Rate Counsel opposes the expansion of the definition of "clean" energy to include non-renewable sources of energy. Rate Counsel is concerned that allowing non-renewable fuel sources to participate in net energy metering programs would only entrench their continued use when the New Jersey EMP calls for 100% clean energy by 2050. The EMP's Strategy #2, which calls for the development of renewable energy and DER, does not appear to encompass fossil-fueled resources. This strategy is described as follows in the EMP:

> To successfully reduce New Jersey's climate emissions and meet the state's energy needs with clean energy, New Jersey should maximize the development of offshore wind and in-state renewable energy generation (including community solar) and the interconnection of zero-emission distributed energy resources (DER). Governor Murphy recently committed New Jersey to building 7,500 MW of offshore wind by 2035; energy system modeling further supports that New Jersey should optimally build 17,000 MW of solar energy and 2,500 MW of energy storage by 2035, as well as support a moderate amount of investment in clean resources out-of-state. In addition to the state's ongoing work to enable this clean energy future, the state should also consider a new incentive delivery system to motivate additional carbon-neutral generation using a competitive approach to stimulating competition and investment, such as a Clean Energy Standard; develop low-cost loans or financing for DER; and develop a market-based mechanism to compensate DER for its

[51] See BPU, "Protocols for the Treatment of Mixed Generation Behind a Single Meter," posted for comment on Sept. 17, 2015, available at: https://www.njcleanenergy.com/main/njcep-policy-updates-request-comments/policy-updates-and-request-comments.
[52] Draft Report at p. 71.

> full value stack at regional and federal levels. These commitments will support the economy and increase local jobs, encourage private sector investment, accelerate clean power production, and improve resiliency.[53]

This description makes it clear that the EMP does not contemplate incentives for fossil-fueled DER. This is confirmed in the discussion of the EMP's Goal 2.3, which focuses on renewable energy sources and storage,[54] and in the discussion of the "least cost" pathway to the State's clean energy goals, which contemplates a decrease in gas fired generation though 2050 and, ultimately, the replacement of fossil fuels with renewable fuels for these facilities.[55]

A policy that incentivizes non-renewable fuel sources may result in the deferred retirement of non-renewable resources, which may impact the state's ability to meet the EMP. Such a policy also could result in the creation of "stranded" assets that are no longer cost-effective or used and useful in providing public utility service. It is important to note that New Jersey's ratepayers have already been required once to pay for stranded costs associated with DER. Under PURPA, the State's electric utilities were required to enter into long-term contracts with cogeneration facilities (now referred to as combined heat and power or "CHP" facilities) and small power production facilities, at prices that proved to be above market prices for energy.[56] These contracts resulted in billions of dollars of stranded costs that ratepayers were required to pay as part of New Jersey's electric industry restructuring.[57]

Rate Counsel notes also that Guidehouse does not specify the conditions under which non-renewable resources would be allowed to participate in net metering. For example, would participation be limited to non-renewable resources that are coupled with renewable resource, or would net metering be available to all DER? If participation is

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[53] EMP at p. 13 (emphasis added).
[54] EMP at p, 121-29.
[55] EMP at p. 262-63.
[56] P.L. 95-617 (Nov, 9, 1978), §§ 201, 210; see Freehold Cogeneration Assocs., L.P. v. Board of Regulatory Comm'rs, 44 F.3d 1178, 1183 (3d Cir. 1995).
[57] See Restructuring the Electric Power Industry in New Jersey – Findings and Recommendations, BPU Dkt. No. EX94120585Y, Report at 99 (April 30, 1997) (estimating NUG-related stranded costs at between $3.5 and $5.3 billion) (available at: https://dspace.njstatelib.org/xmlui/handle/10929/41482); In re Public Service Electric and Gas Company's Rate Unbundling, Stranded Costs and Restructuring Filings, 1999 N.J. PUC Lexis 11 at *274-75 (1999), aff'd, 330 N.J. Super. 65 (App. Div. 2000), aff'd, 167 N.J. 377, cert. denied, 534 U.S. 813 (2001) (setting the initial rate for PSE&G's non-utility generation market transition charge ("NTC") at an initial rate designed to collect $183 million annually).

limited to mixed renewable and non-renewable generation, would there be any limits on the allowable types of non-renewables? As a specific example, would a solar installation coupled with a diesel back-up generator be allowed to participate?

The potential impact and scope of Guidehouse's recommendation are also unclear. Guidehouse does not quantify how many non-renewable resources could potentially participate, nor has Guidehouse quantified how many renewable resources are currently prevented from interconnection under the Board's current policies. Finally, there is no discussion of the consistency of Guidehouse's recommendations with principles of environmental justice. The Guidehouse Draft Report does not discuss the potential for its recommendations to incentivize additional emissions sources in the State's overburdened communities.

The Draft Report notes that non-renewable fuels are allowed to participate in net metering programs in some other states.[58] Rate Counsel does not believe that those examples provide appropriate models for New Jersey, which, as discussed above, has an EMP goal of phasing out fossil-fuel generation. As an example, the Georgia Power program cited by Guidehouse is being implemented in a state that does not have a climate change mitigation goal like New Jersey's. Second, Georgia Power's climate change commitment is to be net-zero by 2050.[59] A net zero commitment is not the same as New Jersey's 100% clean energy by 2050.[60] A net zero goal simply balances carbon emissions with offsets so that the net emissions are zero.

For the above reasons Rate Counsel is concerned that Guidehouse's recommendation to extend net metering to non-renewable resources is not consistent with the EMP, nor the State's renewable energy policies.

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[58] Draft Report at p. 70.

[59] Georgia Power. Net Zero Transition. https://www.southerncompany.com/sustainability/net-zero-and-environmental-priorities/net-zero-transition.html#:~:text=Georgia%20Power%20is%20constructing%20the,of%2060%20to%2080%20years.

[60] New Jersey BPU. 2019 Energy Master Plan Pathway to 2050. Available at https://www.nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.

III. Conclusion

Based on the foregoing, Rate Counsel notes it is generally or conceptually supportive of F&R's #1, #2, #3, #4, #6, and the first recommendation in F&R #9, with modifications as noted above. Regarding F&R's #5 and #8, Rate Counsel respectfully requests that the Board work with stakeholders to modify the Draft Report's recommendations. . Last, Rate Counsel strongly opposes F&R #7 and the second recommendation in F&R #9.

Rate Counsel thanks the Board for this opportunity to provide these comments on the Guidehouse Draft Report and looks forward to working with all parties throughout this Grid Modernization proceeding.