



State of New Jersey
DIVISION OF RATE COUNSEL
140 EAST FRONT STREET, 4TH FL.
P.O. Box 003
TRENTON, NEW JERSEY 08625

PHIL MURPHY
Governor

TAHESHA L. WAY
Lt. Governor

BRIAN O. LIPMAN
Director

June 12, 2024

Via Electronic Mail board.secretary@bpu.nj.gov

Sherri L. Golden
Secretary of the Board
44 South Clinton Ave., 1st Floor
PO Box 350
Trenton, NJ 08625-0350

**Re: In the Matter the 2024 New Jersey Energy Master Plan
BPU Docket No. QO24020126**

Dear Secretary Golden:

Please accept for filing these comments being submitted on behalf of the New Jersey Division of Rate Counsel in accordance with the revised Notice issued by the Board of Public Utilities ("Board") in this matter on March 11, 2024. 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/ Maura Caroselli*
Maura Caroselli, Esq.
Deputy Rate Counsel

Enclosure

cc: Veronique Oomen, BPU
Stacy Ho Richardson, BPU
Kim Diamond, BPU

2024 ENERGY MASTER PLAN

COMMENTS OF NEW JERSEY DIVISION OF RATE COUNSEL

June 12, 2024

INTRODUCTION

The Energy Master Plan (“EMP”) is a living document that, on a continuing basis, sets forth the State’s energy goals and a plan to meet those goals. The objectives of the original EMP statute were energy security, economic growth and environmental protection.¹ The State’s last EMP was issued on January 27, 2020.² The Board of Public Utilities (“BPU” or “Board”) has initiated the process to prepare a new, updated plan. On March 11 and 14, 2024, the BPU gave notice of a series of virtual public meetings to discuss the 2024 update to the State’s EMP and invited all interested parties and members of the public to participate. The stated purpose of these public meetings was to initiate the statutorily mandated EMP update, to examine the progress that New Jersey made toward the seven strategies presented in the 2019 EMP, and to review the State’s progress toward achieving Governor Murphy’s accelerated targets of 100% clean energy by 2035 and an 80% reduction in greenhouse gas (“GHG”) emissions by 2050.³

The New Jersey Division of Rate Counsel (“Rate Counsel”) welcomes the opportunity to provide written comments in support of an affordable and implementable 2024 EMP that achieves the objectives of energy security, economic growth, and environmental protection. Rate Counsel represents and protects the interests of all utility consumers — residential customers, small business customers, small and large industrial customers, schools, libraries, and other institutions in our communities. Rate Counsel is a party in cases where New Jersey utilities or businesses seek changes in their rates and/or services. Rate Counsel also gives

¹ “The three major goals defined in the 1977 [EMP] Statute are energy security, economic growth, and environmental protection.” State of New Jersey, Energy Master Plan, <https://www.nj.gov/emp/home/docs/approved/060929.html>.

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

³ BPU, In the Matter of the 2024 New Jersey Energy Master Plan, Docket No. QO24020126, March 11 and 14, 2024.

consumers a voice in setting energy, water, and telecommunications policies that will affect the rendering of utility services well into the future.

Rate Counsel commends the Governor, the Board and all EMP committee members for the ambitious goals of the 2024 EMP. Rate Counsel supports many aspects of the 2024 EMP. Our comments contain proposals to improve the outcomes and likelihood of success of the 2024 EMP and are based on data, experience, and outcomes since the issuing of the 2019 EMP. Rate Counsel acknowledges the extreme challenges that COVID-19 presented to New Jersey shortly after the release of the 2019 EMP and the subsequent inflationary environment and global supply chain disruptions that resulted from the global pandemic.

The comments that follow are organized into three sections. The first section discusses the key attributes that the 2024 EMP should contain: The second section discusses the 2019 EMP strategies. The third section responds to the questions posed by the Board as part of this process.⁴

I. KEY ATTRIBUTES THE 2024 EMP SHOULD CONTAIN

A. The 2024 EMP Must Be Affordable

New Jersey Ratepayers Cannot Afford Higher Costs

The 2019 EMP wisely noted: “The State will also be sensitive to the potential for rising costs, and be aggressive in limiting these costs whenever possible through prioritization and phasing in goals over an appropriate and reasonable timeframe, as well as through measures including energy efficiency, revised rate design and ratemaking processes, and exercising more regulatory oversight over transmission projects.”⁵ In short, the EMP must ensure energy affordability for all New Jerseyans.

The goal of 100% clean energy by 2035 is an ambitious one. The plans to achieve this goal should be developed within the existing practical and legal constraints. The State will need to implement the transition in the most cost-effective manner, with an equitable allocation of the costs to aid the well-being of its most vulnerable residents. Considerations of equity and

⁴ Request for Information, I/M/O the 2024 New Jersey Energy Master Plan, BPU Docket No. QO24020126, May 14, 2024.

⁵ The State of New Jersey, 2019 Energy Master Plan, p. 12, http://d31hzhk6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU_EMP.pdf.

affordability need to be at the forefront of discussions about every component of the 2024 EMP. Affordability not only includes electricity and natural gas rates and bills but also any additional costs consumers pay due to the 2024 EMP. These include, for example, the costs associated with the electrification of homes and buildings and transitioning to public and private electric vehicles (EVs) and their associated infrastructure.

Since 2019, the cost of living in New Jersey has increased significantly. In the U.S., the average inflation rates in 2021, 2022, and 2023, respectively, were 4.7%, 8.0%, and 4.1%, with a cumulative increase of almost 18% over these three years.⁶ According to the U.S. Federal Reserve System:

Results from the 2023 Survey of Household Economics and Decision making (SHED) indicate that people’s overall financial well-being was nearly unchanged from the previous year but below the high reached in 2021. Despite the moderating pace of inflation, many adults continued to indicate that higher prices were a challenge in managing their finances.

The survey, which was fielded in October 2023, showed similar patterns for other measures of financial resiliency as well. Both the share of adults who spent less than their income in the month before the survey and the share who would pay for an unexpected \$400 expenses with cash or the equivalent were nearly unchanged from 2022, yet both were down from 2021. Among adults who were not retired, the share who felt that their retirement savings plan was on track rose slightly from 2022, possibly reflecting stock market gains, but remained below the share who felt their retirement savings was on track in 2021.⁷

Not surprisingly, SHED reports that lower-income adults are less likely able to pay their bills than higher-income groups. Only 67% of those surveyed with a family income of less than \$25,000 expect to pay all their bills in full.⁸ In New Jersey, nearly 1.3 million out of 3.5 million households had income below the Asset Limited, Income Constrained, Employed (ALICE) Threshold of Financial Survival in 2021 due to a mismatch between their income and the cost of

⁶ Investopedia, U.S. Inflation Rate by Year: 1929 to 2024, May 2, 2024, <https://www.investopedia.com/inflation-rate-by-year-7253832>.

⁷ Board of Governors of the Federal Reserve System, Economic Well-Being of U.S. Households in 2023, May 2023, p. 1, <https://www.federalreserve.gov/publications/files/2023-report-economic-well-being-us-households-202405.pdf>.

⁸ Board of Governors of the Federal Reserve System, Economic Well-Being of U.S. Households in 2023, May 2023, p. 29, <https://www.federalreserve.gov/publications/files/2023-report-economic-well-being-us-households-202405.pdf>.

basic living expenses.⁹ Relatively small, unexpected expenses are a hardship for many families, and 37% said they could not cover an unforeseen expense of \$400.¹⁰ For low- and lower-income households, energy costs are regressive: these households pay disproportionately more as a percentage of their income on energy than wealthier households,¹¹ making it particularly difficult for them to pay for energy cost increases.

New Jersey and the greater region have seen first-hand the impact of rising clean energy costs such as offshore wind. One press account from 2023 which highlighted the uncertainty in the cost of offshore wind to the State found:

The U.S. offshore wind industry faces a perfect storm of rising costs, permitting delays and grid connection hurdles – all leading to low returns. Inflation and supply chain challenges have driven up capital expenditure, while financing costs have spiraled due to rising interest rates. Developers want to renegotiate their previously-agreed offtake deals which are no longer profitable while some are trying to cancel their contracts altogether.¹²

The same press account notes that the cost of electricity for a subsidized U.S. offshore wind project is up almost 50% from 2021 due to a surge in materials, labor, and logistics costs. Many countries, including the U.S., are aggressively pursuing ambitious clean energy goals, increasing the pressure on supply chains for solar, wind, energy storage, electric transmission and distribution facilities, associated critical minerals, and labor.¹³

Two major examples that illustrate the potential for substantial additional ratepayer costs are the electrification of buildings and transportation, as envisioned in the 2019 EMP and New

⁹ United For ALICE, Covid and Financial Hardship in New Jersey, 2023, [UnitedForALICE.org](https://www.unitedforalice.org/).

¹⁰ Board of Governors of the Federal Reserve System, Economic Well-Being of U.S. Households in 2023, May 2023, p. 31, <https://www.federalreserve.gov/publications/files/2023-report-economic-well-being-us-households-202405.pdf>.

¹¹ Eric Scheier and Noah Kittner, A measurement strategy to address disparities across household energy burdens, Nature Communications, 2022, <https://www.energy.gov/sites/default/files/2024-02/027.%20Eric%20Scheier%20and%20Noah%20Kittner%20-%20Nature%20Communications%20-%20Energy%20Burdens%20Measurement.pdf>.

¹² BloombergNEF, Soaring Costs Stress US Offshore Wind Companies, Ruin Margins, August 1, 2023, <https://about.bnef.com/blog/soaring-costs-stress-us-offshore-wind-companies-ruin-margins/>.

¹³ McKinsey & Company, Renewable-energy development in a net-zero world: Disrupted supply chains, February 17, 2023, <https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/renewable-energy-development-in-a-net-zero-world-disrupted-supply-chains>.

Jersey Executive Orders 315 and 316, both issued in 2023,¹⁴ and building an offshore wind network transmission system. Electrification will more than double New Jersey's electricity consumption, necessitating an expansion of New Jersey's electric distribution systems to accommodate this rise in consumption.¹⁵ The costs for offshore wind transmission also include the costs of onshore transmission upgrades. All these items require detailed and realistic cost proposals that utilities commit to fulfilling. Back-of-the-envelope cost estimates may be incomplete and currently overly optimistic.

The 2024 EMP should ensure that New Jersey is maximizing the funding opportunities under the federal Inflation Reduction Act of 2022 and the Infrastructure Investment and Jobs Act of 2021, but only in ways that improve energy affordability and reduce ratepayer costs. Maximizing the funding from these sources does not necessarily result in lower costs for ratepayers because implementing these measures may impose additional costs on them.

All Rate and Cost Impacts Borne by New Jersey Ratepayers and Households Must be Considered, Reviewed, and Allocated Fairly

The preparation, analysis, and modeling of the 2024 EMP should include all costs and their impact on consumers and ratepayers from the start. Some of the 2024 EMP costs will be reflected in utility bills and some costs will be paid by households in their other expenses, such as appliance purchases. All stakeholders should be allowed to fully review and comment on all the assumptions, calculations, models, and analyses in draft form before the 2024 EMP is finalized. Assumptions, calculations, models, and analyses should be transparent, accessible, and provided in tabular form. A detailed ratepayer and household impact study that includes all additional consumer costs, such as the purchases of heat pumps, electric vehicles, and stranded utility investments that ratepayers as consumers will incur as part of the 2024 EMP, must be part

¹⁴ The State of New Jersey, 2019 Energy Master Plan, p. 37, http://d31hzhk6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU_EMP.pdf. New Jersey Governor Office Executive Order No. 315, February 15, 2023, <https://www.nj.gov/infobank/eo/056murphy/pdf/EO-315.pdf> and No. 316, February 15, 2023, <https://nj.gov/infobank/eo/056murphy/pdf/EO-316.pdf>.

¹⁵ For example, BCG estimates that a representative transmission and distribution utility will need to spend \$2,600 in capital per electric vehicle, 95% of which is for distribution. BCG, The Costs of Revving Up the Grid for Electric Vehicles, December 20, 2019, <https://www.bcg.com/publications/2019/costs-revving-up-the-grid-for-electric-vehicles>. Offshore transmission costs for the Northeast are estimated to be between \$15 to \$20 billion to develop the planned projects for 2035. Jeff St. John, A Looming Transmission Crunch for the US East Coast's Offshore Wind Ambitions, November 11, 2020, <https://www.greentechmedia.com/articles/read/the-coming-transmission-crunch-for-the-us-east-coasts-gigawatt-scale-offshore-wind-goals>.

of the draft and final analyses.¹⁶ This transparency will make the final report more credible to the citizens asked to live under the terms of this plan.

Both the benefits and the burdens of this transition must be allocated fairly. It will be important not to allow those who will profit financially from the clean energy transition to determine what will be included and how it will be paid for. The transition to clean energy should be implemented in a way that is fair and beneficial for everyone, including the State's low-income residents and communities. The State will need to demand cost-effectiveness and rely on markets and competition wherever possible to keep costs down. The technologies and projects selected for State support must be the most cost-effective alternatives.

The State should ensure that the transition to clean energy is fair for everyone, including overburdened communities. Utility and electrification costs will be an essential issue for these communities, their businesses and residents. Climate change already creates disproportionate impacts on the State's overburdened communities. Extreme weather events resulting from climate change can be deadly for people who are unable to afford high energy costs. As discussed above, ensuring the affordability of clean energy should be the central consideration to avoid detrimental impacts on these communities, their residents, and businesses. The 2024 EMP should include in its cost estimates both the cost of its proposed energy transition (*i.e.* climate change mitigation) and the costs to New Jersey of responding to climate change (*i.e.* climate change adaptation). It is the sum of these two costs that New Jerseyans will bear.

The State should engage with overburdened community organizations to develop clean energy initiatives that will meet their needs and not the needs of developers. It is not necessary or appropriate to include every type of clean energy measure in every community. As an example, the electrification of buses may be more beneficial to some communities than electric vehicle charging stations. Likewise, the State should take particular care to avoid burdening disadvantaged communities with unwanted or unnecessary development. For example, focusing on energy efficiency may be more beneficial than developing sites for renewable generation in areas that are already limited.

Access to clean energy-related jobs will likely be a priority for overburdened communities. Any job training programs should be designed to include these communities, by physically

¹⁶ Jonathan A. Lesser, The Brattle Group Report, New Jersey Energy Master Plan, Ratepayer Impact Study, August 31, 2022, <https://njaffordableenergy.com/wp-content/uploads/2022/08/RatePayer-Impact-Study-independent-analysis-final-v2.pdf>.

locating programs in them, actively recruiting residents to participate in the programs, and providing job placement resources. The State should actively engage the communities in developing these programs, but they should not be funded by ratepayers.

The 2024 EMP Should Have an Explicit Cost Cap on New Jersey Households and Business EMP-related Expenses and Plan for Mid-course Corrections

The 2019 EMP claimed that “New Jersey can cost-effectively reach its goals of 100% of clean energy and reduce its greenhouse gas emissions below the GWRA [Global Warming Response Act] target...”¹⁷ Cost projections and modeling results of long-term energy plans can be useful in energy planning, but they are limited and should be viewed with caution.¹⁸ Furthermore, as events since 2019 have illustrated, things do not always go according to plan.

The 2024 EMP should incorporate cost cap and off-ramp provisions for the energy expenditures of New Jersey households and businesses so that if unanticipated costs occur, the EMP will be adjusted accordingly. The definition, tracking, and implementation of cost cap and off-ramp provisions depend on the details of the 2024 EMP, so it is vital to build in these provisions from the start with the ability of stakeholders to review and comment. Off-ramp provisions should include the ability to delay or eliminate provisions that are too costly, not performing as intended, or have other better alternatives.

B. The 2024 EMP Must Maintain Energy Security and Electricity Reliability

New Jersey knows the importance of energy security. In October 2012, 2.7 million New Jersey households and businesses lost power as a result of Superstorm Sandy, and 775,000 people still did not have electricity a week after the storm.¹⁹ Hurricane Irene, which struck New Jersey on August 28, 2011, caused power outages for well over a million New Jersey utility customers, and some were still awaiting power restoration as late as September 3²⁰ In the winter of 2013-2014, PJM, the regional transmission organization responsible for operating the

¹⁷ The State of New Jersey, 2019 Energy Master Plan, p. 11,

http://d31hzhk6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU_EMP.pdf.

¹⁸ Frank A. Felder and Pranay Kumar, A review of existing deep decarbonization models and their potential in policymaking, Renewable and Sustainable Energy Reviews, 2021.

¹⁹ Eunice Lee, In the wake of Sandy, 775K in New Jersey still in the dark even as recovery continues, Star-Ledger, November 5, 2012, https://www.nj.com/news/2012/11/more_than_775k_customers_in_nj.html.

²⁰ Wikipedia, Gov. Chris Christie bears down on power companies to relight rest of N.J., Star-Ledger, September 3, 2011, [Gov. Chris Christie bears down on power companies to relight rest of N.J. - nj.com](http://www.nj.com/news/2011/09/gov-chris-christie-bears-down-on-power-companies-to-relight-rest-of-n-j.html).

wholesale electricity market serving New Jersey, experienced extreme cold weather, known as a polar vortex, which threatened both electricity and natural gas supplies.²¹ A similar cold snap occurred between December 28, 2017 and January 7, 2018,²² and with Winter Storm Elliott in December 2022.²³

The 2019 EMP proposed a rapid transition to clean electricity and, which as already noted, more than doubled electricity consumption due to the increase in electrified homes, public buildings, and transportation. This increased dependence on electricity for heating, cooking, and transportation raises important energy security concerns regarding the electric power system's reliability and resiliency. This added dependence will require the distribution system to be even more resilient and therefore more expensive to protect the safety and health of ratepayers. The combined impact of retiring existing generation units, increasing the amount of intermittent electricity from photovoltaic ("PV") solar and wind generation, increased electricity demand growth, and more electrification is raising reliability concerns. North American Electricity Reliability Corporation ("NERC") and PJM are raising concerns about grid reliability in the energy transition.²⁴ The 2024 EMP must be based on detailed and state-of-the-practice reliability and resource adequacy studies to ensure that it does not degrade energy security, reliability, or resiliency. It must also be realistic regarding generation resources, what is truly likely to be available and understanding which units may no longer be available for New Jersey electric customers.

C. The 2024 EMP Process Should be Transparent and Responsive to Stakeholder Input

The successful crafting and implementation of the 2024 EMP requires broad public support. Nothing will do more to undercut public support than if the 2024 EMP is not forthright and transparent in its assumptions, modeling, and results. Indeed, much of the criticism of the

²¹ The 2013-2014 polar vortex adds data points to the books, NASA, April 2, 2015, <https://science.nasa.gov/earth/extreme-weather-events/the-2013-2014-polar-vortex-adds-data-points-to-the-books/>.

²² Record-breaking cold sweeps US in first days of 2018, Christian Science Monitor, January 2, 2018, <https://www.csmonitor.com/USA/2018/0102/Record-breaking-cold-sweeps-US-in-first-days-of-2018>.

²³ Emily Olson, At least 50 people have died across the U.S. in 'once-in-a-generation storm,' National Public Radio, December 26, 2022, <https://www.npr.org/2022/12/26/1145518196/us-massive-winter-storm-deaths-weather>.

²⁴ NERC, 2023 State of Reliability Overview, June 2023, https://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/NERC_SOR_2023_Overview.pdf and PJM, Energy Transition in PJM: Resource Retirements, Replacements & Risks, February 24, 2023, <https://www.pjm.com/-/media/library/reports-notice/special-reports/2023/energy-transition-in-pjm-resource-retirements-replacements-and-risks.ashx>.

2019 EMP centered more around the lack of transparency than the actual document itself. Past Rate Counsel's EMP-related filings have identified numerous instances in which the EMP process fell short in this regard.²⁵

If the 2019 EMP is any indication, the 2024 EMP will likely ask almost all New Jerseyans to fundamentally change their energy purchasing and consumption decisions, such as the cars they drive and how they heat their homes. Also, many New Jerseyans' employment will be directly or indirectly impacted in significant ways by the 2024 EMP. To ensure that the 2024 EMP is credible, the 2024 EMP process must make publicly available all the 2024 EMP data, assumptions, models, working files, supporting findings, and the results for both the 2024 EMP draft and final analyses.²⁶

In the process of requesting input from stakeholders, the EMP Committee should, for every submitted comment, respond to whether it was accepted and, if not, why not, and provide the supporting evidence or analysis for the EMP Committee's conclusion. It is only possible to have a public process if the input from stakeholders and experts is acknowledged, genuinely considered, and provided a thoughtful response. Otherwise, the 2024 stakeholder engagement process will be an unproductive use of time by simply going through the motions and not utilizing the wealth of knowledge and expertise available in New Jersey. A stakeholder process is not simply a box to be checked.

D. Comprehensive and Credible Modeling in the Development of the 2024 Energy Master Plan

Modeling the 2024 EMP is an important component of its development. First, the EMP planners should view the modeling results with a healthy degree of skepticism. Projecting, let alone forecasting, the future during fundamental changes over long periods is challenging. History is littered with failed modeling forecasts, and the energy industry has, unfortunately, led the way in this regard. For example, cost estimates of offshore wind have needed to be revised upwards several times, as discussed previously. Modeling results are frequently overly optimistic and make many assumptions that are simplified or impractical to implement. For

²⁵ See Rate Counsel's comments, August 7, 2019, and Rate Counsel's comments on the Draft 2019 Energy Master Plan, filed on September 16, 2019.

²⁶ There may be a need to protect confidentiality, and that can be determined on a case-by-case basis, with access given to Rate Counsel and its consultants via confidentiality agreements. All models and calculations should be made publicly available and not subject to confidentiality agreements.

instance, some national clean energy studies require the doubling to tripling of transmission infrastructure to achieve a 100% clean electricity system, which is unlikely to occur by 2035.²⁷

Second, the modeling must accurately model the plan. If there is a modeling-plan gap, that is, if the modeling does not accurately capture all the plan's components, then the modeling results do not provide useful insights regarding the likely performance of the plan. Even seemingly small deviations between the proposed 2024 EMP and the model can undercut the conclusions that can be derived from the modeling results. For instance, recent reports indicate that the rate of future electricity demand growth is likely to be higher than past projections.²⁸ If this is the case, the 2024 EMP may need to be substantially revised after it is completed.

Third, the 2024 EMP modeling process needs to compare the 2019 EMP modeling assumptions to actual data and outcomes to assess to what extent the 2019 EMP modeling assumptions were accurate. This comparison will help inform the 2024 EMP modeling. In this vein, the cost assumptions for the 2024 EMP must be based upon comprehensive cost studies, not a numerical value pulled from a report. One example is the cost of upgrading the electrical distribution systems due to increased electrification. Those costs need to be provided by the utilities so that the 2024 EMP is not based on cost assumptions that we find out later are substantially too low.

Fourth, the 2024 EMP modeling assumptions need to be transparent as noted previously. Assumptions must be provided in a numerical, tabular format that is computer readable so that it is clear which numerical value is used for each assumption and the basis for that numerical value. The reference for each assumption must be sufficiently specific so that each assumption can be verified in the reference. A reference to a report, which could be hundreds of pages, or to a set of spreadsheets that has multiple, competing values is not adequate.

Fifth, the 2024 EMP modeling platform needs to be publicly available. It is unreasonable to ask New Jersey ratepayers to pay billions of dollars based on a model that the public cannot access. The fact that a model has been used in other states does not validate and verify the model for New Jersey. The only way to do so is to make the models available for public and expert scrutiny.

²⁷ NREL, Examining Supply-Side Options To Achieve 100% Clean Electricity by 2035, 2022, <https://www.nrel.gov/docs/fy22osti/81644.pdf>.

²⁸ Robert Walton, US electricity load growth forecast jumps 81% led by data centers, industry: Grid Strategies, Utility Dive, December 13, 2023, <https://www.utilitydive.com/news/electricity-load-growing-twice-as-fast-as-expected-Grid-Strategies-report/702366/>.

Sixth, the 2024 EMP modeling needs to be comprehensive. It is essential to provide detailed ratepayer impact and conduct a comprehensive economic impact instead of only considering the policy's benefits and not the full extent of its associated costs. For instance, the 2019 EMP noted that expanding the natural gas system causes stranded costs.²⁹ If the 2024 EMP pursues an aggressive electrification strategy, then it must discuss whether stranded natural gas costs of existing natural gas infrastructure will be recovered, and if so, state who will pay and how much.³⁰ It should also direct how those stranded costs can be limited going forward. Ratepayer impact studies need to be provided at the same time that the 2024 EMP is released and not years later. The State has committed to the principle of comprehensive estimating costs during this proceeding; it is incumbent on the State to ensure it happens.

Seventh, the BPU should commit to establishing cost caps under the EMP and evaluate on a continuing basis whether the State is reaching or exceeding those cost caps. Even if the utmost care in modeling is undertaken, the modeling results may not be accurate, and the actual costs may be higher than projected. Cost caps would halt or stop the implementation of the EMP if the actual costs exceed the assumed costs. These cost caps require continued comparisons of actual costs versus the assumed costs and revisiting the EMP to ensure ratepayers are protected from unanticipated cost increases

E. Progress and Lessons Learned from the 2019 EMP

Rate Counsel agrees with the premise set forth at the recent Board hearings for the 2024 EMP that this process should begin by examining the progress made with the 2019 EMP. The progress with regard to the 2019 EMP presented at the public hearings lacked specificity and was primarily limited to pilot programs and the formation of entities to address selected issues. Detailed progress reports, cost information, and other specifics on the 2019 EMP were not provided. Limited discussions occurred as to what programs were successful and which were not with regard to the 2019 EMP.

Rate Counsel further suggests a detailed post-mortem examination of the 2019 EMP to identify the costs of the goals that were and were not achieved. Analyzing why certain goals

²⁹ The State of New Jersey, 2019 Energy Master Plan, p. 157, http://d31hzhkh6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU_EMP.pdf.

³⁰ Even if the stranded costs are sunk, who pays for them is an essential consideration and should be included in the rate impact analysis of the 2024 EMP.

were not attained is also important to ascertain.. In addition, any changes to the 2019 EMP should be identified and likewise evaluated. A detailed, evidence-based analysis of the 2019 EMP can provide valuable lessons learned, improve cost estimates, and help inform an affordable and achievable 2024 EMP. This post-mortem examination can also inform future assumption forecasts and modeling efforts by providing actual data and outcomes to constrain unrealistic assumptions and projections and enhance stakeholder buy in.

The 2008 EMP envisioned an annual updating process:

There will be an annual review of the progress being made on the Energy Master Plan strategies by the State Energy Council that is described in greater length later in this document. Where there are divergences from the Plan, the review will explain why the goal or action item was not completed and what changes to policy are necessary to be consistent with the Plan.³¹

With independent, objective, and systematic evaluations over the long term, it is more likely that the EMP's objectives will be reached in a cost-effective manner. These evaluations should be an essential element of any plan going forward and should be explicitly included in the 2024 EMP.

F. Realistic and Feasible Plan

Rate Counsel recognizes that COVID-19 was a major event that may have adversely affected the implementation of the 2019 EMP. Even without COVID-19, implementing the 2019 EMP would have been challenging given its scope and schedule. Since the adoption of the 2019 EMP, several executive orders have been added to the 2019 EMP's goals and schedule. For instance, Executive Order 315 accelerates the clean energy target from 2050 to 2035.³² Executive Order 307 increases the State's offshore wind goal to 11,000 megawatts (MW) by 2040.³³

Ambitious, but unrealistic, plans that do not come to fruition are counterproductive to the State, its residents, and ratepayers. They are at best only partially implemented and therefore achieve only a fraction of what they set out to do, many times at higher costs and with fewer

³¹ New Jersey Energy Master Plan, October 2008, p. 25, https://www.madrionline.org/wp-content/uploads/2017/02/Resources-pg_NJ_Energy-Master-Plan.pdf.

³² New Jersey Governor Office Executive Order No. 315, February 15, 2023, https://www.nj.gov/infobank/eo/056murphy/approved/eo_archive.shtml.

³³ New Jersey Governor Office Executive Order No. 307, September 21, 2021, https://www.nj.gov/infobank/eo/056murphy/approved/eo_archive.shtml.

results than more modest and manageable efforts. The EMP Statute requires a ten-year planning horizon. Rate Counsel encourages the EMP Committee in its preparation of the 2024 EMP to focus on affordable and achievable policies. Such an approach is likely to succeed and obtain public support.

G. Evaluation of Pricing Greenhouse Gas Emissions and Recycling Their Revenues

The most obvious and economically efficient way to reduce the reliance on energy sources that release GHG is to put a price on emissions and recycle the revenues into GHG-reducing programs, particularly those with a low- and moderate-income focus. This approach is similar to the Regional Greenhouse Gas Initiative (RGGI). Expanding this option economy-wide and not just for electricity should be considered and included in any analysis and modeling as an alternative policy to the 2024 EMP. Presenting this option provides an alternative to compare with the proposed 2024 EMP and may provide insights about how to achieve greenhouse gas reductions in a more efficient and equitable manner.

H. Definitions of Clean Energy

In pursuing its long-term clean energy goals, New Jersey must focus squarely on energy solutions that are both renewable and clean. As Rate Counsel has noted in prior comments, resources should be spent on initiatives that will promote this long-term goal rather than on “transitional” fuels and technologies that will create stranded costs and hinder or delay the achievement of the ultimate goal, clean energy.³⁴ Furthermore, “clean energy” is not synonymous with “clean electricity.” The 2019 EMP and Executive Order 315 use these terms interchangeably, inadvertently suggesting that by 2035 all the energy that New Jersey will be consuming will be clean, when in fact the objective only applies to electricity.

II. REVIEW OF THE 2019 ENERGY MASTER PLAN STRATEGIES TO INFORM THE 2024 ENERGY MASTER PLAN

This section provides comments on each of the 2019 EMP Strategies in the order that they were discussed in the three 2024 EMP public meetings held by the BPU.

³⁴ Division of Rate Counsel, 2019 New Jersey Energy Master Plan, Undocketed Matter, Comments to the Energy Master Plan Committee, October 12, 2018, pp. 2-3.

Hearing #1, May 20, 2024

A. 2019 EMP Strategy 1: Reducing Energy Consumption and Emissions from the Transportation Sector

Utility ratepayers should not continue to fund EV rebates. Ratepayers already pay for too many programs, including subsidizing charging stations. The 2024 EMP needs to utilize non-ratepayer funds to provide EV rebates. While some ratepayer money could be needed for upgrades to the distribution system and for limited charging infrastructure, every effort should be made to recover the costs of EVs from customers with EVs by creation of EV-specific tariffs. This removes the costs associated with EVs from those ratepayers who do not drive or ride in EVs.

Avoiding inequitable cost shifting is an important part of addressing the concerns of low-income and environmental justice constituencies. Unless a mechanism is established to ensure customers operating EVs pay their fair share, those upgrade costs will fall on other utility customers who cannot afford an EV and do not currently even ride in an EV car or bus. This problem is compounded when imposing the costs of charging stations and vehicle rebates on utility customers' bills. A more equitable way to fund the transformation must be established in the 2024 EMP. Rate Counsel supports the development of alternative rate designs for EV charging, as these can provide a mechanism to recover EV-related costs and incentives for off-peak charging and battery storage.

Concerning charging station infrastructure, a competitive industry exists and is building charging stations. There is no need to bypass that market-based competition and instead allow utilities to build the charging station infrastructure cost into their rate base, which in turn unjustly passes it onto their customers. Placing the cost burden of EV charging on ratepayers may be the easiest solution, but it is also expensive and unnecessary. Other funding sources are available, and ultimately utilities and car companies will profit substantially from the sale and use of EVs. The 2024 EMP should phase out ratepayer-based funding for EV charging stations and look toward market-based solutions.

Low-income ratepayers are much less likely to have the resources to purchase EVs than wealthier ones. Therefore, less funding for EV and EV charging station infrastructure should be allotted to these communities. Instead, the focus should be on putting resources towards the

public transportation system which would better serve low-income customers and overburdened communities while also serving to reducing energy consumption in the transportation sector.

B. 2019 EMP Strategy 2: Accelerating Deployment of Renewable Energy and Distributed Energy Resources

The COVID-19 pandemic and geopolitical events have disrupted global supply chains and increased inflation, both affecting solar and offshore wind. Since the 2019 EMP, executive orders by the Governor have accelerated the deployment of offshore wind and 100% clean energy, defined as clean electricity, from 2050 to 2035.

To date, no comprehensive study has been performed that includes the total costs and ratepayer impact of New Jersey deploying offshore wind, including the necessary offshore and onshore transmission facilities, which will be substantial. Furthermore, studies have yet to be performed to determine the benefits and costs of accelerating New Jersey's 100% clean electricity goal from 2050 to 2035. Both types of analysis need to be part of the 2024 EMP. Moreover, BPU-sponsored studies of offshore wind's impact on the economy and jobs have yet to account for the negative impact of higher utility rates in both of these areas, thus overstating the benefits of offshore wind.

Regarding the use of solar energy and other renewables, any effort to circumvent the limits imposed by the New Jersey Legislature in the Clean Energy Act would be inappropriate and contrary to the statute. Those thresholds established in the Clean Energy Act are generous, and many other states have developed thriving solar industries without the high subsidies New Jersey has been paying for solar. On July 28, 2021, the BPU approved the Successor Solar Incentive (SuSI) Program, the State's new solar incentive program required by the New Jersey Clean Energy Act of 2018 and the Solar Act of 2021. Rate Counsel, in 2021 questioned whether the SuSI Program should be more market-based, with competitive solicitations, and executed at a lower cost.

New Jersey is not an electrical island. New Jersey is part of an integrated power system. We are part of the larger PJM grid and power flows in and out of the State. Putting aside any Commerce Clause issues with trying to create preferences for in-state renewable energy, we should not interfere with established practices. We must accept and consider all resources that

help us reach our goals. The 2024 EMP should not assume that New Jersey generation stays in New Jersey or that we could be self-sufficient from PJM, which is unrealistic and uneconomic.

The Federal Inflation Reduction Act of 2022 has many incentives and provisions to encourage renewable energy, energy storage, and distributed energy resources to decarbonize the grid. We encourage the 2024 EMP to maximize those incentives and provisions so long as they do so in a way that reduces costs to ratepayers.

Given the 2020 Federal Energy Regulatory Commission (FERC) Order No. 2222, Facilitating Participation in Electricity Markets by Distributed Energy Resources, the expansion and accommodation of distributed energy resources as envisioned in the 2019 EMP will be an ongoing process requiring jurisdictional coordination between FERC and the BPU, with adjustments as technologies evolve and costs change. The BPU must ensure that ratepayers are protected from the exercise of market power and market manipulation, and that distributed energy aggregators and their affiliates, whether electric distribution companies or competitive electric suppliers, do not behave in anti-competitive or discriminatory ways.

C. 2019 EMP Strategy 5: Decarbonizing and Modernizing New Jersey’s Energy System

The 2019 EMP relied extensively on nuclear power for the decarbonization of New Jersey. The 2024 EMP should not assume that the three existing nuclear units in the State will continue to operate until 2050 and that the State will continue to subsidize those plants until that date to the extent necessary to keep the plants open. Although there are ongoing efforts to extend the operating licenses of these units, this issue is still to be determined. Nor can the State assume that if these units remain operational that New Jersey will have access to their output.³⁵

In 2050, Salem 1 will be 74 years old, and Salem 2 will be 70. The 2024 EMP must consider if these units may have reached the end of their useful lives well before 2050. They are also likely to be uneconomical by then, with the introduction of more genuinely clean energy sources and significant price drops as technology matures. There is no reason to assume that we will be able to continue to rely on and subsidize outdated and non-renewable technology until 2050. The opportunity to replace the three, aged nuclear units with new, cleaner, and potentially

³⁵ Ethan Howland, PSEG in talks to sell nuclear power to data centers: CEO LaRossa, Utility Dive, May 1, 2024, <https://www.utilitydive.com/news/pseg-nuclear-power-data-center-transmission-earnings/714825/>.

cheaper, technology should be strongly considered. Given recent developments with these units, the 2024 EMP must pursue that opportunity.

Rate Counsel has concerns about the 2019 EMP's definitional change of 'clean energy' to 'carbon-neutral,' ignoring other critical environmental concerns. An overreliance on nuclear energy does not bring us to our clean energy goal realistically and affordably. Any assumption that we will be subsidizing nuclear energy for the next 30 years is an abandonment of the market-based system established in the Electric Discount and Energy Competition Act (EDECA) and the obligation to ratepayers to preserve just and reasonable rates.

On April 30 of this year, the BPU approved proposed changes to the grid modernization rules, which included a streamlined process for utility interconnection applications, more transparent and more consistent distribution system information available to potential project applicants, and a pre-application and verification process that will provide interconnection applicants with an early indication of feasibility and costs. The 2024 EMP should ensure that grid modernization is cost-effective and minimizes any impact on ratepayers.

The benefits of automatic metering infrastructure, or AMI, for ratepayers have been slow to materialize. These claimed benefits, such as utility operations and maintenance and customer savings, need to be assessed and reflected in utility rates. The 2024 EMP should track whether these benefits are occurring and, if not, make appropriate adjustments.

With increased AMI and grid modernization, we need to be especially vigilant regarding customer privacy and data protection. New Jersey has a long history of very robust regulations and BPU precedents protecting customer data, and these protections should absolutely be maintained. Privacy is one of the most important issues for customers. The 2024 EMP should strengthen, not weaken these customer protections.

Rate Counsel wholeheartedly supports the 2019 EMP's discussion regarding transmission costs. We agree that the State should take on a more significant role in overseeing the need for transmission and its costs. We support increasing the BPU's role in reviewing the need for and placement of transmission, as similar entities do in other states. On May 13, 2024, the Federal Energy Regulatory Commission released its Transmission Order, No. 1920, on long-term

transmission planning and cost allocation.³⁶ The 2024 EMP must consider this FERC order when developing its plans.

The Governor's Executive Order 317 on the future of natural gas utilities raises a looming and challenging issue regarding the future of natural gas in the State. Rate Counsel is concerned that low- and moderate-income ratepayers could be the last customers on the natural gas system and, therefore, will be exposed to rapidly rising rates to recover stranded investments. We have presented multiple concerns to the BPU in the proceeding concerning EO317 in our September 2023 comments.³⁷ Rate Counsel reiterates two of those concerns here. First, additional investments in natural gas infrastructure should stop except for safety reasons, otherwise these new investments will add to the amount of stranded costs. Second, before any policy aimed at decarbonizing the natural gas industry is adopted, a natural gas planning process should be completed. It should start with precise estimates of future loads under various reasonable design days that New Jersey's utilities will likely face over a longer-run planning horizon. Utilities should be required to account for all current and projected capacity resources. Of particular emphasis should be how utilities propose to manage, if not reduce, their overall infrastructure requirements over time, consistent with state policies reducing the reliance on and the use of fossil fuels like natural gas. The 2024 EMP is an excellent place to undertake this planning process.

Hearing #2, May 22, 2024

D. Strategy #3: Maximizing Energy Efficiency and Conservation, and Reducing Peak Demand

Since the 2019 EMP, much has happened on the topics of energy efficiency (EE), conservation, and reducing peak demand. On May 24, 2023, the BPU directed each electric and gas utility to propose EE programs for the second three-year cycle of programs, referred to as Triennium 2. All seven New Jersey electric and gas utilities currently have open EE dockets..

³⁶ FERC, FERC Takes on Long-Term Planning with Historic Transmission Rule, May 13, 2024, <https://www.ferc.gov/news-events/news/ferc-takes-long-term-planning-historic-transmission-rule>.

³⁷ Comments of the New Jersey Division of Rate Counsel, I/M/O the Implementation of Executive Order 317 Requiring the Development of Natural Gas Utility Emission Reduction Plans, BPU Docket No. GO23020099, September 6, 2023.

If the 2024 EMP is to be affordable and fair, we believe that EE and demand response need to be implemented more cost-effectively while holding utilities and contractors accountable for their performance. There should be both utility and Division of Clean Energy (DCE) programs, and they need to work together. We strongly urge the Board to prevent utilities from establishing EE monopolies in their service territories, as utility monopolies will lead to vastly different customer options in different service territories. Some companies might do a good job, while others, as history has demonstrated, likely would not. It would also force contractors, such as plumbers and carpenters, to go through the utility to get the work to implement these changes, with the utility tacking on administrative fees and profit, leading to higher prices for ratepayers. The utilities should focus on complementing the DCE programs and doing things that the DCE cannot do, like on-bill financing. We, therefore, strongly agree with the 2019 EMP's call for both utility and DCE programs. We also agree that, to lower costs, other sources of capital for EE and renewable energy, such as 'green banks,' etc., need to be made available, and we support the recent establishment of the New Jersey Green Bank since it encourages money other than ratepayer dollars to be utilized in response to environmental issues.

Utility-run, third-party supplier-run, and state-run energy efficiency programs have unique strengths and weaknesses. Utility-run programs have the advantage of utilities being familiar with their existing customer bases. Likewise, customers are familiar with their utilities and may be more inclined to participate in utility-led programs. However, utilities might require a higher cost of capital to fund EE projects than other funding sources, such as green banks or public funds, since a utility will seek to be paid for its administrative costs and a return on its investment. In addition, due to a utility's inherent monopoly status, it will be difficult for other EE providers to compete with them, impacting the cost of these programs and, ultimately, ratepayers' costs.

Alternatively, third-party EE providers do not have the disincentives that utilities have to reduce energy sales. For some third-party EE providers, energy efficiency may be the organization's sole focus, leading to innovative technologies and programs. However, third-party EE suppliers face their own set of hurdles. Third-party EE suppliers may need to spend more on program marketing to increase name recognition. For third-party suppliers in the same jurisdiction as historical or existing efficiency programs (either state or utility-run), program overlap can cause customer confusion and jurisdictional tension.

State-run programs have the advantage of being public interest-driven rather than profit-driven, elevating the consumers' needs and the State's energy savings and policy goals. A single state-wide administrative program has several other additional benefits, such as consistent program parameters, less customer confusion, and more efficient marketing and outreach.

For low-income residents who rent their residences rather than own them, the EMP's EE initiatives are less likely to be beneficial if not designed and implemented carefully. For instance, it is unclear whether landlords would be adequately incentivized to invest in better insulation and more efficient HVAC equipment and appliances, whether these investments would decrease tenants' energy costs (or rent), and whether the tenants' reduced energy costs, if any, would exceed the costs they may bear from the energy efficiency initiatives. EE programs can leave low-income customers behind if barriers are not addressed. New Jersey can help to ensure EE is delivered equitably by identifying market barriers to different participant groups and developing a holistic strategy to overcome them.

Since low-income customers are much less likely to have capital to invest in energy efficiency than market-rate customers, EE programs should be required to offer increased incentives and incentive structures (e.g., pay-as-you-save arrangements) for moderate-income customers. Another option would be to develop other ways to fill the gap between market-rate incentives and the incentive levels needed to encourage moderate-income customer participation with state funding. Targeted marketing efforts to reach low-and moderate income neighborhoods would help, especially if aimed at those with outdated housing who would benefit from energy upgrades. Increasing accessibility by providing marketing materials in different languages could also help. Partnerships with trusted local organizations (e.g., community action agencies and food banks) can also greatly increase the visibility of and participation in targeted programs. Further, community-based social marketing (CBSM) campaigns can influence targeted behavior (e.g., energy consumption) through social and behavioral factors. They also achieve much greater participation and deeper savings than programs that only use economic and attitudinal traits as motivation.

Alternative program delivery (e.g., the direct installation of measures) may be helpful for those with limited ability or time to arrange installation themselves. Some customers may lack access to efficiency offerings for reasons other than income. Multi-family housing units present particular challenges, as the interests of both landlords and tenants in saving energy must be

addressed. New Jersey should identify the existing barriers to participation in energy efficiency programs and develop an action plan to ensure that all ratepayers have access to cost-effective energy efficiency.

Regarding energy efficiency more broadly, Rate Counsel recommends focusing on achieving the statutory EE targets laid out in the Clean Energy Act first before setting any higher targets. In addition, the cost of reaching these energy saving targets must be considered. Rate Counsel recommends that rate and bill impact analyses be conducted for any incremental energy saving targets beyond the statutory energy saving targets set forth in the Clean Energy Act. This is because, although there could be energy savings for some participants in the program, all ratepayers are paying for these EE programs with incremental increases to their bills.

Energy saving programs need to remain cost-effective, and net benefits need to accrue to ratepayers. Generally, Rate Counsel notes that as part of establishing utility targets, compensation, rewards, penalties, and revenue recovery mechanisms, the BPU must develop well-defined and consistent analytical approaches to be used by all of New Jersey's utilities. This development includes establishing which cost-benefit tests will be used for what purposes, which components are to be included in these tests, and how to establish the discount rate and other critical assumptions. The quantification of performance relative to BPU-established targets cannot be subject to the ambiguity and subjective implementation that have characterized cost-benefit analyses in support of past utility program filings. Well-defined and consistent analytical approaches must also be established for the evaluation, measurement, and verification (EM&V) of program performance, including annual and lifetime savings if new energy efficiency targets are adopted. These standards and approaches should be adopted through a rulemaking process.

Regarding the specifics of the 2019 EMP, it lists over a dozen sub-strategies as part of Strategy #3. The 2024 EMP should report on the progress and results of each strategy and what lessons can be learned. Many of these sub-strategies may sound beneficial at the outset but they must be more specific to result in meaningful outcomes. For instance, sub-strategy 3.1.3 established strategic and targeted energy efficiency programs to reduce energy consumption and increase customer engagement. It is unclear what this means or how it differs from the current design and implementation of energy efficiency and demand response programs. Sub-strategy 3.1.6 streamlines and increases marketing, education, awareness, and program administration. Again, this needs to be more specific and consistent.

In short, the 2024 EMP must align itself with the utility programs that the BPU is considering and develop a well-defined plan to attain specific and verifiable objectives that help achieve its emission reduction, affordability, and fairness goals. Comprehensive cost-benefit analyses and ratepayer impact studies must be performed to inform policies before they are implemented, not simply justify them after the fact.

E. Strategy #4: Reducing Energy Consumption and Emissions from the Building Sector

Much has transpired in this area since adopting the 2019 EMP. In addition to the Triennium 2 proceedings mentioned above, the Governor issued Executive Order 316 encouraging the installation of zero-carbon-emission space heating and cooling systems. This Executive Order tasked the Office of Climate Action and the Green Economy (“OCAGE”), informed by the Clean Buildings Working Group, to develop and release a strategic roadmap to decarbonize buildings by March of 2024. Furthermore, in January 2024, the Department of Environmental Protection signed a multi-state memorandum of understanding to accelerate the transition to zero-emission residential buildings.³⁸

The 2024 EMP will depend heavily upon building electrification to achieve its emission reduction goals. Overall, we are concerned that the 2024 EMP will accelerate the electrification of buildings without a comprehensive and detailed plan based on accurate cost assessments, ratepayer impacts, and reliability implications. The State has over 3.7 million housing units, not including commercial, industrial, and governmental facilities. Most use natural gas, propane, or oil for heating, hot water, and cooking.

For existing buildings, electrification is not just a simple matter of replacing a boiler with a heat pump, switching out a gas-fired water heater with an electric one, or changing the type of stove. It may mean updating electrical wires, fuse boxes, ducts, and equipment. If substantial upgrades are necessary, asbestos and lead paint may be impediments to the necessary upgrades. Replacing equipment requires the building owner to figure out how to finance the costs and find, hire, and supervise contractors. Simultaneously, electric utilities must evaluate the need for additional substations, transformers, and associated equipment in conjunction with the planned

³⁸ Multistate Memorandum of Understanding, Accelerating the Transition to Zero-Emission Residential Buildings, January 30, 2024, <https://www.nescaum.org/documents/buildings-mou-final-with-signatures.pdf>.

increase in electric vehicles, while also modernizing their existing systems. Natural gas utilities will also be reducing and retiring their investments, which must be coordinated with electrification plans so that all areas no longer served by natural gas are ready for increased electrification.

Trying to achieve massive electrification in one or two decades may result in shortages of qualified electricians, higher costs for appliances and installation, and substantial financial incentives, particularly when regional states are also pursuing electrification. City and town planning departments may be overwhelmed with permitting and inspection requests. Replacing a heating system will be restricted to non-heating months, limiting the installation time per year.

If the 2024 EMP decides to accelerate electrification, its plan must be realistic and based on detailed planning with high-quality cost estimates, including detailed plans by electric and natural gas utilities that lay out the costs, timetables, and challenges. As we saw with the Ratepayer Impact Study released by the BPU in August 2022,³⁹ an incomplete analysis that ignores significant costs and practicalities will not only be dismissed by stakeholders but will undercut the vital public support and trust needed for the EMP.⁴⁰

The issue of stranded natural gas costs is a major concern in general and impacts low- and moderate-income families. Replacing natural gas with electricity means that ratepayers, especially those of moderate means, will have to simultaneously plan the expansion of their electric system and appliances while paying stranded costs for the natural gas system and prematurely retiring existing appliances. This electrification will be costly, and the costs will increase as the transition period decreases.

³⁹ The Brattle Group, New Jersey Energy Master Plan: Ratepayer Impact Study, August 2022, <https://www.brattle.com/insights-events/publications/brattle-consultants-evaluate-expected-new-jersey-ratepayer-energy-costs-in-2030-in-new-report/>.

⁴⁰ Jonathan A. Lesser, The Brattle Group Report, New Jersey Energy Master Plan, Ratepayer Impact Study, August 31, 2022, <https://njaffordableenergy.com/wp-content/uploads/2022/08/RatePayer-Impact-Study-independent-analysis-final-v2.pdf>.

Hearing #3, May 29, 2024

F. Strategy #6: Supporting Community Energy Planning and Action in Underserved Communities

As we and others have pointed out in prior hearings, many families in New Jersey are having difficulties paying their monthly bills due to high inflation. Supporting community energy planning and action in underserved communities is an important strategy to help mitigate energy costs.

The State and BPU should be looking toward federal and non-ratepayer State funding for these programs to offset the costs to ratepayers as much as possible. Rate Counsel recently submitted comments to the BPU regarding the BPU proposal to implement the Federal Inflation Reduction Act provisions concerning home efficiency rebates, home electrification, and appliance rebates. The 2024 EMP should, consistent with the Inflation Reduction Act, not only reduce greenhouse gases but address environmental injustices and reduce the impact of inflation by lowering the energy bills for families and small businesses.

Rate Counsel recommends ratepayers who receive home efficiency grants related to electrification also receive a complete up-front analysis of a year of projected energy bills before starting the planned electrification measures. Although these ratepayers may experience a reduction in emissions if these measures are installed, it may not necessarily mean that they will experience a reduction in their energy bills post-project. If ratepayers' energy bills increase, this only achieves some of the stated goals of the IRA. This up-front analysis of a year's worth of energy bills must be performed by a disinterested party, not the contractor who would be hired to perform the work. The Board should only seek to electrify the most vulnerable ratepayers in the State after first providing all the necessary information for ratepayers to make the most well-informed decision about whether it is the right time for them to electrify. In short, we must ensure that electrification in low-income communities lowers utility bills, not increases them.

We believe that the Comfort Partners energy efficiency program should remain funded by the Societal Benefits Charge, and not taken over by the utilities as proposed in their EE filings. This reduces cost to the ratepayers when they do not have to pay the return on equity and administrative costs associated with utilities carrying out this program. We support on-bill financing since it may reduce aggressive lending practices by third-party lenders. However, we

are concerned that there are still additional costs associated with on-bill lending to ratepayers, as well as excessive costs to ratepayers associated with lower interest rates on these loans.

Finally, transportation-related electrification in low-income communities should focus on making sure ride-share fleets such as Lyft or Uber, government fleets and mass transit are electrifying, not just installing EV chargers in low- and moderate-income communities.

G. Strategy #7: Expanding the Clean Energy Innovation Economy

The most important contribution that the 2024 EMP can make to economic growth is to be cost-effective. This requires detailed analysis, planning, and evaluation of each component in the 2024 EMP. In assessing whether the programs that ratepayers fund result in net economic activity, the economic costs of ratepayers having less money to spend must be considered, not just the economic impacts of the expenditures.

The transition to a clean energy future will shift economic activity between sectors. The businesses and organizations that benefit from this transition should fund workforce development and infrastructure from which they will profit. New Jersey's Economic Development Authority and the federal government have funding for Workforce Development and should bear the brunt of this cost. Workforce Development should not be shouldered primarily by the ratepayers through the utilities..

III. Response to Requests for Information

This section responds to the requests for information by the Board. Our response is in *italics* after each request.

May 20, 2024 – Public Hearing 1:

A. Strategy 1 of the 2019 EMP: The 2019 EMP indicated that among the largest barriers to mass adoption of passenger electric vehicles (“EVs”) are range anxiety, the upfront capital costs of EVs compared to their gas-powered counterparts, limited model choices, outdated electricity rate structures, and lack of consumer and dealer awareness. Through focused state efforts to expand public and private charging infrastructure and to encourage the purchase of EVs by implementing and leveraging utility, state, and federal incentives and rebates to reduce the upfront cost of owning and operating an EV, New Jersey continues its efforts to make owning an EV a reality for residents.

1. What could the evolution of transportation electrification incentives look like? On which sectors should the State focus for spurring electrification (for instance, used EVs, medium- and heavy-duty vehicles, and/or ports)? Where will incentives no longer be necessary and when?

Any additional incentives for the electrification of the transportation system should not be paid for by utility ratepayers. Instead, New Jersey should look to market-based funding and solutions. The phasedown of publicly funded incentives should occur as transportation electrification occurs. A firm stop date for incentives should be established to ensure they are not relied on long past their need.

2. As the State moves to reduce emissions from the transportation sector, what can be done to reduce overall vehicle miles traveled in the State? What collaborations are necessary, and what strategies and examples can New Jersey employ and learn from to achieve this goal?

Rate Counsel has no comment on this question at this time.

B. Strategy 2 of the 2019 EMP: The 2019 EMP aimed to successfully reduce New Jersey's climate emissions and meet the State's energy needs with clean energy by maximizing the development of offshore wind, the amount of in-state renewable energy generation, and the interconnection of zero-emission distributed energy resources ("DER"). With three offshore wind solicitations complete and one underway, as well as revamped solar programs that center competition and cost reductions to save ratepayer dollars and reach more residents, the State continues to advance our clean energy goals.

1. What mechanisms are needed to ensure clean energy development incentives are aligned to match generation and load?

As the costs of clean energy and distributed energy resources continue to decrease, clean energy incentives should be reduced accordingly. Market-based approaches, such as competitive solicitations and putting a price on the emission of greenhouse gases, are more cost effective when properly designed and implemented, than subsidies.

2. How can we accelerate the pace at which renewable generation projects are built without making it cost-prohibitive for ratepayers and/or developers?

The 2024 EMP should have a cost cap on the financial impact to ratepayers. If costs exceed this cap, then incentives should be reduced to reduce the financial burden on ratepayers. This would ensure that the pace of renewable generation projects is not cost-prohibitive.

C. Strategy 5 of the 2019 EMP: The 2019 EMP outlined how the benefits of electrification, including incorporation of renewable energy, energy storage, demand

flexibility, energy efficiency, load shifting, resiliency, microgrids, decentralization, and decarbonization, all necessitate a 21st-century distribution grid. With the release of the 2022 Grid Modernization Report, followed by robust stakeholdering and the recent approval of new grid modernization rules, New Jersey is working hard to build, through a coordinated and collaborative approach with expert and relevant stakeholders, a more advanced and capable grid to support the clean energy transition.

1. How can New Jersey more swiftly advance required electric distribution system upgrades with which DER project developers may be faced in order to bring their project online? Should project developers be required to pay for the full upgrade, or can financial mechanisms be put in place to reduce the upfront burden of grid upgrades, reduce or mitigate any impacts on ratepayers, and achieve cost-effective expanded hosting capacity for DER?

DER project developers should be required to pay for the full distribution upgrade costs associated with their projects. To accelerate the deployment of upgrades, electric distribution companies should post maps identifying distribution system centers that accommodate DERs. These distribution centers should require little or no upgrades and provide information regarding the likely costs of upgrades to inform DER site selection. To the extent upgrades are needed, those costs should be shared among all relevant developers rather than solely the first actor. Allowing DERs to interconnect with operational restrictions that avoid the need for upgrades should be permitted if it can be done safely and reliably. Finally, electric distribution companies should be required to submit to the BPU their updated Integrated Distribution Plans that cost-effectively upgrade their systems over time.

2. How should the State incorporate emerging and existing technologies such as long-duration energy storage, clean hydrogen, and demand response in net-zero emission modelling scenarios that align state emission reductions with the Global Warming Response Act of 2009?

All possible technologies, their costs, and their capabilities should be included in the net-zero emission modeling. For existing technologies, the cost assumptions should be compared to actual costs in New Jersey, where available, or adjusted to reflect their costs when deployed in the State. For emerging technologies, cost and capability assumptions should be made with caution, since little if any data is available to compare to actual deployments. All technology costs and other assumptions should be provided in tables with numerical values in addition to including complete references, plus page numbers and/or tables being cited. The 2019 EMP modeling results provided cited costs and other assumptions in references that contained multiple possible values spread over multiple pages or worksheets making it impossible to discern the actual numerical values used.

May 22, 2024 – Public Hearing 2:

A. Strategy 3 of the 2019 EMP: The 2019 EMP stated that the NJBPU should continue to engage with stakeholders to determine opportunities for increasing accessibility to energy efficiency programs, as well as develop program structures and methods for evaluating program success and utility goal achievement that value priorities such as increased program accessibility for hard-to-reach customers. In the first three-year cycle of utility energy efficiency programs, New Jersey’s electric public utilities and gas public utilities offered rebates and zero percent financing to encourage energy efficiency improvements statewide, with more favorable rebates and financing terms offered to lower-income customers.

1. Have these mechanisms been effective in broadening accessibility to energy efficiency improvements?

At this time, it is difficult, if not impossible, to answer this question. Independent, objective analyses of these energy efficiency mechanisms are needed to assess if they were cost-effective after implementation. To date, many utility energy efficiency programs have not achieved their stated objectives, are not routinely evaluated, and do not improve over time.

2. What else should New Jersey do to increase education and awareness and address gaps in the accessibility of energy efficiency programs?

The educational and awareness aspects of all energy efficiency programs, whether utility or not, should be independently evaluated for their effectiveness. Without objective and hard data and analysis to inform decisions, increasing education and awareness may not be effective.

B. Strategy 4 of the 2019 EMP: The 2019 EMP stated that the most cost-effective first steps in decarbonizing buildings are starting the transition for new construction to be net zero carbon and converting existing homes using baseboard electric heating, oil, and propane to modern, efficient heat pumps.

1. In April 2024, the NJBPU approved a revised program that will offer financial incentives for construction of new buildings that achieve high levels of energy efficiency and that reduce greenhouse gas emissions. How can New Jersey achieve net zero emissions new construction, whether through the new construction incentive program or through additional mechanisms or initiatives?

Scaling up ratepayer funded programs to achieve net zero emissions for new construction is likely to be extremely costly. Other mechanisms, such as building codes, federal funding, and non-ratepayer funding sources are needed.

2. In addition to offering incentives to electrify existing oil- and propane-fueled buildings, as well as buildings heated with older and inefficient electric

technologies, what else should New Jersey be doing to successfully achieve its goals of electrifying buildings heated with these technologies?

Ratepayers cannot afford to pay for the electrification of existing oil- and propane-fueled buildings along with older and inefficient electric technologies. The suppliers of the associated equipment who profit from such efforts along with the electric utilities that increase their sales should fund these programs, not the utility customers. Stranded assets related to the natural gas distribution system are part of the cost of electrification and should be minimized.

May 29, 2024 – Public Hearing 3:

A. Strategy 6 of the 2019 EMP: In order to implement the strategies outlined in the 2019 EMP, it is imperative that New Jersey communities find ways to move toward these goals, taking into account, low-moderate income (“LMI”) communities, local preferences, and changes made at the State level. The State has a responsibility to facilitate equal access to and representation in the clean energy economy and all the opportunities and benefits it provides.

1. How can current workforce development programs be further optimized or new programs designed to engage and increase participation from residents in LMI communities? How can the State ensure LMI communities have access to and can afford clean energy and energy efficiency measures, and other “bridge” programs (for example: home remediation or other financing)?

These workforce development programs should not be funded by ratepayers. See Section II.F. above regarding LMI communities’ access to clean energy and EE measures.

2. How can the State further encourage county, municipal, and other jurisdictional participation in making climate investments and advancing the clean energy transition?

The State and utilities can provide information, education, and access to utilities’ energy efficiency programs to county, local, and city governments.

B. Strategy 7 of the 2019 EMP: In order to implement the strategies outlined in the 2019 EMP, it is imperative that the State support the growth of in-state clean energy industries through workforce training, clean energy finance solutions, and investing in innovative research and development programs. Expanding industries like offshore wind, solar, and other clean energy industries will create jobs and grow the economy, while ensuring that the State meets its climate goals.

1. As New Jersey continues to invest in building a clean energy workforce, how best can community-based partners such as non-profits, social service organizations, vocational schools, and county colleges play a role in preparing New Jersey

residents for clean energy occupations? What emerging or existing clean energy technologies offer the biggest opportunity for near-term job training and placement?

While Rate Counsel has no opinion on how to address this issue, it is important that any of these programs not be funded by New Jersey ratepayers.

2. As New Jersey establishes policies and programs to develop an in-state clean energy supply chain, what else could the State be doing to support the development of the clean energy supply chain in New Jersey?

While Rate Counsel has no opinion on how to address this issue, it is important that any of these programs not be funded by New Jersey ratepayers.

June 3, 2024 – Public Hearing 4:

1. Input on any of the above-listed questions for each of the three prior public hearings is welcome.

Input is provided above in these written comments.

2. How should the State consider to streamlining programs for clean energy development, electric vehicles, building electrification, and other sectors?

These clean energy programs should be periodically reevaluated and phased down as progress is made and the costs of clean energy, electric vehicles, building electrification, and other sectors decrease.

CONCLUSION

Rate Counsel encourages the EMP Committee to focus on affordability and achievability via a transparent, stakeholder-responsive process. Below is a summary of the key points that Rate Counsel is making in these comments. The 2024 EMP must:

1. Be affordable and equitable;
2. Contain a cost cap to ensure that ratepayers are protected if costs are underestimated;
3. Be based upon detailed state-of-the-practice reliability and resource adequacy studies;
4. Be transparent and responsive to stakeholder input with the State responding to each comment made by stakeholders as to why the State agrees or disagrees with the comment;

5. Be based on comprehensive economic and ratepayer impact studies that include all costs, including stranded costs, that ratepayers will pay as part of their utility rates or otherwise and whose explicit assumptions and methodologies are publicly available and easily verifiable;
6. Conduct a detailed post-mortem of the 2019 EMP to inform the 2024 EMP regarding lessons learned and reasonableness of assumptions;
7. Be realistic and feasible and not assume that massive infrastructure development in electrification of appliances, upgrading the electrical distribution system while shrinking the natural gas system, and expanding the electric transmission system can be done within arbitrary timelines;
8. Incorporate the analysis of alternatives to the 2024 EMP including the consideration of economy-wide pricing of greenhouse gases;
9. Be more precise in the use of the term ‘clean energy’ and not rely upon aging nuclear power plants to achieve the 2024 EMP’s goals;
10. Not transfer costs to ratepayers, such as EV charging stations and workforce development costs- these costs should be borne by those industries that will profit from the energy transition;
11. Leverage recent federal legislation to reduce costs to New Jersey ratepayers, particularly low- and moderate-income residents;
12. Scrutinize utilities’ energy efficiency and capital expansion requests, which at their current requested levels will substantially raise costs for ratepayers; and
13. Require ongoing, evidence-based, independent evaluations of each of the 2024 EMP’s components.

Rate Counsel appreciates the opportunity to provide public comments on the 2024 EMP process.