

June 12, 2024

VIA ELECTRONIC MAIL

Honorable Sherri L. Golden
Secretary of the Board
New Jersey Board of Public Utilities
44 South Clinton Avenue, 1st Floor
Trenton, NJ 08625
board.secretary@bpu.nj.gov

IN THE MATTER OF THE 2024 NEW JERSEY ENERGY MASTER PLAN, BPU Docket No. QO24020126

Dear Secretary Golden,

The New Jersey Utilities Association (“NJUA”) represents investor-owned utilities that provide electric, natural gas, telecommunications, water and wastewater services to residential and business customers throughout the State. I am writing on behalf of the investor owned electric and natural gas companies (“the Utilities”) that are members of the NJUA to present joint recommendations regarding concerns and suggestions for the 2024 New Jersey Energy Master Plan (“EMP”). NJUA’s member companies also reserve the right to submit comments on an individual basis and intend to continue to be active participants in all stakeholder meetings related to this proceeding.

The New Jersey Utilities Association (NJUA) supports the New Jersey Board of Public Utilities (BPU) and Murphy Administration’s work to plan for New Jersey’s clean energy transition using a state-wide lens via the development of this Energy Master Plan (EMP). Maintaining coordination among regulators, utilities, and other interested stakeholders will allow for the continued deployment of clean energy, decarbonization technologies, electrification, and electric grid upgrades while maintaining reliability, affordability, and generation resource adequacy.

However, it is important to recognize the context of these efforts: PJM recently tripled its load growth projections for its footprint over the next decade. Simultaneously, PJM reports that the pace of retirement of existing fossil-based energy resources is outpacing the construction of new renewable resources.¹ The New Jersey Energy Master Plan has set a global example for moving towards a carbon-neutral energy economy while maintaining reliability and affordability.

To maintain a reliable electric system, particularly considering New Jersey’s expected increase in electrical demand from electric vehicles (EVs), artificial intelligence, building decarbonization, and the

¹ Energy transition in PJM: Resource Retirements, Replacements & Risks. (2023, February 24).

proliferation of data centers, New Jersey will have to take an all-of-the-above approach. This means simultaneous support for decarbonization using existing and frontier energy technologies, along with the growth of transmission and distribution infrastructure to facilitate such a diverse energy mix.

Decarbonizing New Jersey's Electrical System

New Jersey's gas and electric utilities are committed to the reduction of greenhouse gases (GHGs) in the effort to help New Jersey achieve a Clean Energy Future. However, attaining this common goal is a massive undertaking, especially while maintaining consistent, affordable, and reliable utility service for all New Jerseyans. These companies are leaders in implementing sustainability-oriented solutions, developing next-generation supply sources like hydrogen and renewable natural gas, offering a broad portfolio of energy efficiency programs, and taking proactive steps to modernize the State's electrical grid. That is why we emphasize the importance of State policy that facilitates innovation and allows utilities to implement technologies that enable multiple options for emissions reduction.

The ideal diversified energy supply should consist of a mix of renewable electric sources like solar, wind and hydro power, low-carbon fuels like renewable natural gas (RNG) and hydrogen, and other innovative solutions, such as utility thermal energy networks. Emission free nuclear energy is a key part of New Jersey's existing energy mix that also presents a cost-effective resource for the State's clean energy future. Thus, we support maintaining the State's three existing nuclear power plants.

Wind provides another example of why a diversified approach is essential. The 2019 New Jersey Energy Master Plan estimated that offshore wind would supply 23% of the state's clean energy in 2050. That ambitious goal, which assumes that 11,000 megawatts of the state's energy demand will be procured from offshore wind by 2040, is attainable. However, as with all infrastructure development in a post-COVID world, supply chain disruptions, labor shortages, and other economic challenges may slow its attainment in New Jersey.

These economic factors have likewise impacted the solar energy industry, along with the utility industry as a whole. They underscore the need to diversify energy sources and explore various means to achieve the State's goals. NJUA and its members fully support continuing to deploy wind and solar as part of a holistic strategy while recognizing the necessity to work through challenges so that steady progress may be made towards achieving long term targets.

New Jersey's EDCs also recognize the importance of deploying a robust energy storage system to support increased deployment of intermittent renewable energy sources. Energy storage was among the key supply-side elements of the 2019 EMP, and the State currently has one of the most ambitious energy storage targets in the nation at 2 GW by 2030. NJUA supports these goals but encourages the State to authorize EDCs to own and operate energy storage systems, particularly those that are cited at utility substations.

The BPU's existing energy storage straw proposal would only include privately-owned and operated storage devices and does not propose to allow for utility ownership or operation of devices. However, EDCs have unique expertise in siting and deploying energy storage and integrating it with other clean energy technologies.

Achieving the State’s statutorily mandated 2 GW storage goal by 2030 will require an all-hands-on-deck, all-of-the-above approach. NJUA urges the BPU to recognize in the 2024 EMP the capabilities of utilities to help achieve this goal, and to support policies that would authorize utility ownership and operation of energy storage systems.

Grid Modernization

Simultaneously, electric grid modernization is one of the most important issues facing New Jersey today and is critical for the achievement of the State’s ambitious climate goals. New Jersey’s electric distribution companies (EDCs) readily acknowledge that significant planning and investment needs to be done to upgrade the State’s electric grid to prepare for increasing electrical demand and the accelerated deployment of renewables and other distributed energy resources (DERs), including EV infrastructure.

NJUA’s EDC members strongly support the goal of modernizing the State’s electric grid. Streamlining interconnection standards, increasing DER hosting capacity, and proactively planning infrastructure upgrades are necessary steps towards decarbonizing the State’s electric sector while simultaneously increasing reliability and resilience against severe weather events. This is why NJUA’s EDC members are already working to make this happen.

Right now, New Jersey’s EDCs are rolling out advanced metering infrastructure, advancing interconnection, and developing and implementing Infrastructure Improvement Plans (IIPs). Notable examples include PSE&G’s Infrastructure Advancement Program,² Jersey Central Power and Light’s EnergizeNJ program³, Atlantic City Electric’s Powering the Future program⁴, and Rockland Electric Company’s Charger Ready incentive program.⁵ These programs together represent approximately \$1.7 billion in investments in utility infrastructure upgrades.

These programs illustrate the readiness of NJUA’s EDC members to address the technical, tariff, and operational questions that electric grid modernization raises. However, simultaneously they are focused first and foremost on maintaining the reliability, affordability, sustainability, and security of electrical service for New Jerseyans.

NJUA finds that this balance is struck best if planning for grid modernization remains through stakeholder processes under the purview of the BPU and in coordination with PJM. A collaborative stakeholder approach involving state and regional regulators in tandem with the State’s EDCs is the best way to approach grid modernization so that the EDCs can provide consumers with the highest quality service and avoid service disruptions while upgrading for a clean energy future.

An important part of this is the State’s development of mechanisms that provide full and timely recovery to utilities for the grid modernization and other critical investments that are necessary to facilitate the

² <https://nj.pseg.com/newsroom/newsrelease305>

³ EnergizeNJ is the Company’s five-year, \$935 million IIP proposal that includes key investments in grid modernization, system resiliency and substation modernization, and represents the largest infrastructure upgrade investment in company history.

⁴ <https://www.tdworld.com/smart-utility/article/21269167/atlantic-city-electric-receives-approval-for-931-million-powering-the-future-program>

⁵ <https://www.oru.com/en/our-energy-future/electric-vehicles/new-jersey/commercial-ev-drivers/charger-ready-for-business>

State’s clean electricity goals. Ensuring that utilities can promptly and fully recover these costs will allow electric utilities to provide customers with the highest quality of service and avoid service disruptions while upgrading their infrastructure to support a clean energy future. The Board should work with EDCs to explore alternative ratemaking mechanisms to incentivize such critical grid modernization investments and reduce “regulatory lag.”

In tandem with planning and taking steps toward facilitating grid modernization, NJUA supports implementing modernized customer rate structures that can save customers money and decrease strain on the electric grid. Specifically, time-of-use (TOU) rates can encourage residential customers to shift electricity usage away from the system peak demand and save money in the process. TOU rate structures allow customers to make informed decisions about when they consume electricity and will be particularly beneficial to customers who own EV and can charge during off-peak hours.

Natural Gas

NJUA and its member companies acknowledge that New Jersey, and the U.S. more broadly, are going through an energy transition that is evolving from a traditional fossil fuel energy economy. However, for the foreseeable future the continued availability of reliable, reasonably priced natural gas supplies, especially for residential heating, is a requirement, not an option.

There are significant risks to assuming our State can simply or quickly phase out the use of this plentiful, cost-effective resource, ignore supply constraints, and neglect the extensive natural gas transmission and distribution infrastructure that is already in place. The pace of retirement of existing fossil-based energy resources is outpacing the construction and operation of new renewable resources. This means that, to maintain a reliable electric system, particularly in light of New Jersey’s expected increase in electrical demand from electrification and the proliferation of data centers, New Jersey should well consider maintaining natural gas and other pipeline fuels as important parts of its energy mix.

For example, it would be prudent for the State to recognize in the 2024 EMP the immediate and meaningful GHG reduction potential associated with low carbon fuels, such as RNG, biogas, and anaerobic digestion. Notably, the New Jersey Department of Environmental Protection’s (NJDEP) Science Advisory Board has calculated that 150 million cubic meters of biogas could be produced annually in New Jersey using existing technologies.⁶ This much biogas would have the capacity to generate up to 1 TWh of electricity annually, approximately 3 percent of the total amount of electricity produced in New Jersey from natural gas in 2023.

Our utilities are taking steps to capture this renewable energy potential, thereby reducing the need for fossil derived gas and reducing emissions across our air shed. To this end, several projects are already underway across the State, and others are under evaluation, to blend RNG and hydrogen for use in the gas distribution system.

For example, New Jersey has 37 wastewater treatment facilities that utilize anaerobic digesters for processing, including 11 that have energy recovery systems in place. Additionally, 11 of the 12 operational landfills in New Jersey use methane gas captured on site as a source of power, electricity, heat, or to

⁶ <https://dep.nj.gov/wp-content/uploads/cleanenergy/sab-biofuels-final.pdf>

produce pipeline-quality natural gas. Utilities should be encouraged to pursue projects like these, with supporting regulatory and rate mechanisms to provide full and timely cost recovery.

RNG is molecularly identical to conventional natural gas. As such, it can be transported and delivered through the existing natural gas pipeline system to serve any end-use currently using natural gas as a fuel source, including but not limited to electric generation, manufacturing, heavy industry, and building heat and other commercial and residential natural gas customers appliance end-use.

These well-developed technologies are poised to decrease GHG emissions in the near term. The NJUA and its members encourage New Jersey to continue supporting developing sources of biofuels, along with the infrastructure required to deliver them, and consider them as another important part of the effort to achieve the State's climate goals.

It is also important to mention that other immediate steps can be taken to decrease emissions from the gas sector. This includes replacing aged cast iron and unprotected steel mains and services, that are more prone to leaks, with hardened plastic. These upgrades will reduce fugitive emissions and enable the potential to transport hydrogen blended fuel.

Much of this work has already been done with regulatory support. In the South Jersey Gas service territory, for example, all cast iron and unprotected steel have been replaced. These replacement efforts reduced emissions across their service territory by 70% from 2006 to 2023. Similarly, Elizabethtown reduced fugitive emissions by 74% over that same period. PSE&G is also currently engaged in the second phase of its Gas System Modernization Program and is set to replace at least 400 miles of aged pipes, improving reliability and reducing GHG emissions by approximately 54,000 metric tons by 2026.

Through robust infrastructure replacement programs at our utilities, our total combined miles of main have increased by 18% in 2023, but the CO₂-equivalent emissions from these mains and associated services have been reduced by 68% (as compared to the current EMP baseline year of 2006). NJUA encourages the BPU to recognize these decarbonization benefits and acknowledge the immediate and meaningful GHG reduction potential that can come from taking advantage of RNG and hydrogen.

Hydrogen

NJUA also agrees with the NJDEP's characterization of hydrogen energy as a technology capable of significantly reducing emissions and boosting the clean energy economy.⁷ Once at scale, hydrogen systems have the potential to decarbonize various economic sectors, such as heavy-duty transportation, industrial manufacturing, and electric generation. In addition to reducing GHGs, hydrogen systems can offer resilient and reliable peak demand and backup power; enhance air quality, especially in the State's overburdened communities; and generate new jobs, facilitating a just clean energy transition. The utilities will continue to assess cost impacts to customers and the implied cost of carbon.

The use of clean hydrogen, which includes green hydrogen, produced with renewable resources, pink hydrogen produced with nuclear power, and blue hydrogen, made using natural gas and carbon-capture, has the potential to be a critical component of New Jersey's clean energy future.

⁷ <https://dep.nj.gov/hydrogen/>

Achieving market development and scale of clean hydrogen for use across economic sectors is a core strategy of the federal government’s energy policy and roadmap to achieve 2050 climate goals. This includes aggressive market outlooks for both green and blue forms of clean hydrogen, and the federal government’s strong support for clean hydrogen development vis-à-vis its “Hydrogen Shot” initiative and \$8 billion in funding for hydrogen hubs across the country. Additionally, New Jersey is poised to benefit significantly as a part of the \$750 million Mid-Atlantic Hydrogen Hub federal program.

New Jersey is a road and rail transportation corridor, home to one of the busiest ports in North America, positioned between two massive metropolitan areas, has the most natural gas pipeline-connected populations in the northeast, has a fleet of natural gas-fired electric generation facilities, and is poised to be a national leader in renewable offshore wind energy – a potentially critical feedstock for green hydrogen production in-state.

Building Decarbonization

NJUA and its member companies recognize the importance of reducing GHG emissions attributable to the building sector. We therefore support a comprehensive, state-wide approach aimed at achieving this goal. Piecemeal policies at the State and local level like bans on natural gas piping in new buildings, which are preempted by the federal Energy Policy and Conservation Act, are not the answer.

NJUA and our member companies support a building decarbonization approach that recognizes the needs and capabilities unique to this State. This will allow electric and gas utilities to continue to provide reliable service, without disruption, while simultaneously taking steps toward achieving decarbonization goals. Building electrification is not the only strategy to achieve building decarbonization. The EMP should promulgate a building decarbonization strategy that supports RNG and hydrogen deployment and investment in gas infrastructure in tandem with building electrification.

Additionally, NJUA emphasizes the importance of energy source diversification with respect to achieving building decarbonization. Notably, modeling from a 2022 McKinsey & Company article showed that a decarbonization pathway for the energy system based solely on electrification, renewables, and storage, without clean fuels (like RNG and hydrogen) or carbon sequestration, results in a higher societal cost.

As the State contemplates the decarbonization of buildings, it should also explore the benefits of utility owned and/or operated thermal energy networks. These systems deliver heating and cooling services to multiple buildings by circulating a fluid through a single, shared pipe loop, allowing more efficient heat and cooling distribution and lower operating costs compared to traditional HVAC systems.

NJUA encourages consideration of varied decarbonization options and prioritization of those options to pursue those that are most cost-effectively implemented for decarbonization in the State. Overreliance on any single solution risks diverting resources from solutions that may also be effective and can be more rapidly and/or cost-effectively deployed.

Energy Efficiency

The NJUA and our member companies agree that one of the most effective decarbonization strategies is energy efficiency. Investments in energy efficiency provide immediate GHG reduction benefits, along with cost savings that are particularly important to low- and moderate-income customers.

New Jersey utilities are already making significant contributions through their own energy efficiency programs and are working collaboratively with the BPU and other stakeholders to expand program offerings to make energy efficiency more readily accessible. Specifically, New Jersey utilities offer a broad portfolio of programs that range from customer behavioral guidance to comprehensive building energy efficiency upgrades with personalized solutions and have included special incentives to help low- and moderate-income customers. Public education is a key part of this effort.

NJUA supports the State's continued efforts to support a robust range of energy efficiency programs that will allow customers to lower their electric and natural gas usage. Maintaining strong incentives for high efficiency electric and natural gas will encourage customers to opt for these technologies over standard efficiency equipment, facilitating the State's climate goals at home.

Simultaneously, NJUA urges the State to continue to support the technology and infrastructure needed to deploy and develop innovative energy efficiency solutions. This means developing new and maintaining existing rebates and incentives to finance the deployment of gas and electric energy efficiency equipment.

Conclusion

In conclusion, the NJUA and its members are committed to the reduction of GHGs in our effort to help New Jersey combat climate change and achieve a clean energy future. However, simultaneously, our top priority remains to provide consistent, affordable, safe and reliable utility service for all New Jerseyans.

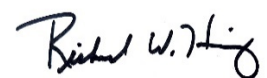
Therefore, NJUA encourages the State to support in this EMP diversified decarbonization options and full and timely recovery of investments in utility infrastructure that delivers clean power. Overreliance on any single solution risks diverting resources from solutions that may also be effective and can be more rapidly and/or cost-effectively deployed.

An all-of-the above approach will optimize the use of time, resources, and rates without sacrificing the reliability of utility service. It will ensure that we are moving towards a cleaner economy in a cost-effective manner.

Technologies exist today that enable multiple options for a shared vision of emissions reduction. NJUA and its member companies support policies and regulatory action that facilitate a balanced energy mix while providing for the development and implementation of these innovative technologies. Such policies will allow utilities to continue to provide the sustainable, reliable, and resilient service that is a key component of New Jersey's economy and enables the high quality of life we all enjoy.

NJUA and its members look forward to working with the Board to ensure achievement of the aggressive goals set out by Governor Murphy and the Board. The Utilities appreciate the significant amount of stakeholder discussion and dialog that has occurred thus far. Thank you for the opportunity to comment on this very important matter.

Very truly yours,

A handwritten signature in black ink that reads "Richard W. Henning". The signature is written in a cursive style with a large, stylized 'R' and 'H'.

Richard Henning
President & CEO
New Jersey Utilities Association
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