Comments on: New Jersey Board of Public Utilities
Energy Master Plan 2024

Submitted by the New Jersey Environmental Justice Alliance and the Ironbound Community Corporation to the New Jersey Board of Public Utilities

June 12, 2024

The New Jersey Environmental Justice Alliance (NJEJA) and the Ironbound Community Corporation (ICC) respectfully submit our comments to the New Jersey Board of Public Utilities in the matter of the 2024 Energy Master Plan (EMP) hearings.

The New Jersey Environmental Justice Alliance (NJEJA) is a statewide organization mobilizing other environmental justice (EJ) organizations and individuals in order to increase the quality of life and upward mobility opportunities for EJ communities (low-income communities and communities Of Color), many of whom experience additional burdens resulting from histories of systemic racism. We are the only statewide organization in New Jersey that is exclusively dedicated to environmental justice work, and have a board, staff, and membership that is predominantly people Of Color. Our work covers a wide range of areas but the principles and values of environmental justice practices are at the center of all we do, and we believe that the community’s vision of improvement will always be the most effective and an important part of strategic development.

Founded in 1969, ICC aims to empower and engage individuals, families, and groups in realizing their aspirations and work together to create a just, vibrant, and sustainable community. ICC envisions a safe, healthy, just, and nurturing Ironbound, a fully inclusive community supporting equal and accessible opportunities and the quest for a better life. The organization’s Environmental Justice and Community Development Team advocates for systemic change to promote Environmental Justice in New Jersey and beyond, especially for EJ communities. By
centering the experiences and perspectives of the communities most impacted by environmental injustice, ICC believes we can create a more equitable and sustainable future for all.

The NJEJA and ICC have long been in partnership as advocates for Environmental Justice communities in New Jersey and across the country. Together, our teams have engaged numerous stakeholders at the local, state, regional, and federal level including the NJ DEP, NJ BPU, the NJ State legislature, various cities and counties across New Jersey, the U.S. EPA, the U.S. Department of Energy, the U.S. Department of Treasury, and the U.S. Office of Clean Energy Demonstrations. We are also members of the Climate Justice Alliance, the Equitable and Just National Climate Platform, the Moving Forward Network, Clean Air For the Long Haul, and the Coalition for Healthy Ports. We have decades of expertise in the areas of clean energy, transportation, and community engagement.

As such, we respectfully submit these comments today in an effort to support the New Jersey BPU in their effort, “to ensure that safe, adequate, and proper utility services are provided at reasonable, non-discriminatory rates to all members of the public who desire such services. To develop and regulate a competitive, economically cost effective energy policy that promotes responsible growth and clean renewable energy sources while maintaining a high quality of life in New Jersey.”¹ Our range of work, state-wide and national reach, and diversity of membership gives us a unique perspective on environmental protection and allows us to bring the concerns of environmental justice communities to the forefront of the conversation. We welcome continued conversation in this matter.

**Defining Clean Energy**

In an effort to level set and work within the same definition, NJEJA and ICC would like to first begin our comments by highlighting our definition of clean energy, green energy, renewables, etc. All such terms, as well as any other used to describe energy that transitions us away from

fossil fuels and towards sustainable, renewable energy that does not further harm EJ communities\(^2\), should be grounded by the same understanding and definitional agreement. By these terms, we point to energy generation which neither accelerates climate change nor contributes to local air pollution levels. With this understanding, renewable energy can only be defined as solar power, wind power, and small hydropower projects.

We do not consider hydrogen fuel/hydrogen combustion, the use of carbon capture utilization and storage/carbon capture and storage (CCUS/CCS), nuclear, incineration, burning of biomass, liquid natural gas (LNG), or renewable natural gas (RNG) as clean, renewable, or green.

Similarly, any definition of clean energy must not use “net zero” measurements, offsets, or emissions trading mechanisms.\(^3\) There is debate as to whether these methodologies actually reduce CO2 emissions. However, if we were to assume that these systems truly do successfully and efficiently lower CO2 emissions, they do not guarantee reductions in CO2 in aggregate nor do they reduce GHG co-pollutants in EJ communities.

**Carbon Management: The Flaws of CCS and Hydrogen**

With regards to the growing conversation regarding CCS and hydrogen (particularly hydrogen co-firing and the federally-funded hydrogen hubs). NJEJA and ICC have been active participants in the discussion regarding CCS and hydrogen, having written and provided extensive public comment regarding the risks of such technologies, their lack of financial feasibility, and the ways in which they do not truly provide a pathway to divestment from fossil fuels.

With regards to CCS, there is significant debate surrounding the efficacy of carbon capture technologies. One such example includes the Petra Nova project, which received $195 million

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\(^2\) The term “environmental justice communities” refers to communities Of Color and communities with low-income.

dollars in funding from the Department of Energy. The project encountered multiple technical difficulties, could not stay consistently operational, and did not capture CO2 at its promised rate. The project aimed for a 33% capture rate, but averaged around 17%.

However, if these projects were able to find success, they still do not serve EJ communities in a meaningful way as CCS does not lead to a transition away from fossil fuels nor does it capture GHG co-pollutants, which pose significant risks for local air pollution, health outcomes, and host communities. Furthermore, there are significant risks of pipeline leakage and rupture which can lead to highly hazardous situations. CO2 is odorless, colorless, heavier than air, and an asphyxiant and intoxicant which can lead to physical harm and death in humans and animals in surrounding areas. Likewise, CCS can lead to seismic activity and groundwater contamination.

With regards to hydrogen usage, blending, co-firing, and the proposed hydrogen Hubs, there are several similar associated risks. Throughout the entirety of the hydrogen lifecycle, there are risks regarding production, transportation, storage, and usage. Any type of hydrogen produced other than green hydrogen relies on non-renewable energy and thus perpetuates harm. However, even green hydrogen relies on significant water consumption and diverts valuable renewable energy resources that could be more efficiently used elsewhere. Furthermore, the use of hydrogen fuel cells in fleets is not as effective as electrification.

Hydrogen as an energy source will require significant infrastructural development, even if current pipeline systems are utilized. Production facilities, transportation infrastructure, storage operations, and the ability to utilize hydrogen will require vast public subsidies all of which has not yet seen adequate public engagement, input, or transparency. Furthermore, the risks of leakage, explosion, and increased emissions associated with hydrogen production demonstrates that this technology is not a viable investment. Hydrogen in general, as the smallest element, vibrates at an incredibly high frequency and thus is more prone to creating cracks and fissures in


pipelines, especially if rigorous safety measures are not put into place. Such cracks can lead to leaks and explosions as a result of hydrogen’s high flammability. Hydrogen explosions are larger and burn hotter than methane, risking the lives of host communities and damage to the environment where this infrastructure is situated. Additionally, hydrogen production holds the potential to increase NOx emissions as well. Such renewable energy would be more effective and better suited to the goals of electrifying sectors currently relying on fossil fuels.

This infrastructural investment can and should be pivoted to focus on truly clean, renewable sources of energy that does not continue to place EJ Communities in positions of precarity and risk to health, physical safety, and life.

**Decentering Carbon**

The BPU should make every effort to ensure that decarbonization includes not just greenhouse gas emissions, but GHG co-pollutants such as nitrous oxides (NOx), particulate matter, and ozone as well. Furthermore electrification and decarbonization efforts should be prioritized based upon the communities which experience the highest totality of pollution. This can be understood through NJEJA’s Cumulative Impacts framework\(^6\)\(^7\) which centers the aggregate pollution burden rather than a pollutant by pollutant examination. Therefore, communities which experience disproportionate levels of pollution as a result of multiple polluting sources in and around their neighborhoods will be the first to see pollution reduction.

**Key Section 1: Reducing Energy Consumption and Emissions from the Transportation Sector**

In the state of New Jersey, the transportation sector\(^8\) is the largest contributor to greenhouse gas (GHG) emissions\(^9\). According to the DEP, transportation is responsible for 37.3 MMT of CO2 equivalent of emissions in 2021. Therefore, it is critical that significant investments are made in decarbonizing the transportation sector and goods movement industry.

One step towards significant decarbonization is the electrification of medium-duty vehicles (MDV), heavy-duty vehicles (HDVs), bus fleets, and the ports. Such prioritization of electrification can decrease GHG emissions as well as greenhouse gas co-pollutants\(^{10}\) in the transportation sector, which pose serious health risks to Environmental Justice (EJ) communities and workers in the transportation sectors. The BPU must identify strategies to electrify these vehicles, particularly those that frequently drive through EJ communities and are part of the state’s fleet. Furthermore, the BPU should examine opportunities for electrification and support efforts to electrify vehicles and ships at the Port of Newark, which is the largest on the East Coast and the third largest in the United States\(^{11}\). In this area, as previously articulated, NJEJA and ICC urge the BPU to neither consider nor invest in CCS or hydrogen technologies as a viable solution for the work of decarbonization. These technologies are costly, pose dangers to the communities they are sited in, and frequently fall short of the metrics they set for themselves\(^{12}\). False solutions like CCS perpetuate the usage of fossil fuels through mechanisms like enhanced oil recovery (EOR). The Global CCS Institute estimates that about 73% of CO2 captured is used for EOR, continuing our reliance on fossil fuels\(^{13,14}\).

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\(^8\) We concur with the NJDEP’s Greenhouse Gas Emissions Inventory Report which defines the transportation sector as light-duty passenger vehicles, trucks, other on-road vehicles, trains, subways, cargo ships and passenger ferries.


\(^10\) Copollutants are hazardous produced by GHG emission sources that include but are not limited to: NOx, PM2.5, SO2, HFCs, lead, mercury, cadmium. Environmental Protection Agency (EPA). “Sources of Greenhouse Gas Emissions.” EPA, May 2024. https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#transportation.


\(^14\) For more information, please see our section on CCS and hydrogen earlier in the statement.
With regards to public transportation, the state can and should continue to electrify bus fleets and commuter trains, and increase accessibility/affordability of public transportation options for community members so that these investments in public transportation do not go under-utilized. In particular, the state should ensure that efficient public transportation systems are available in EJ communities as a mechanism for lowering local air pollution levels and co-pollutant emissions. Other ways to decrease local air pollution can and should include community planning which designs and implements walkable/bikeable cities.

**Key Section 2: Accelerating Deployment of Renewable Energy and Distributed Energy Resources**

The state has raised important questions regarding the apparent challenge in accelerating the pace of renewable projects while ensuring that ratepayers do not see their costs substantially increase. In NJEJA's 2019 EMP comments\(^\text{15}\), we highlighted several solutions to this challenge including:

- Devoting more funding to EJ Communities;
- Reviewing income eligibility requirements; and,
- Incentivizing community organizations to become energy efficiency program managers.

**Devoting More Funding to EJ Communities**

We encourage the BPU to devote at least 33% of clean energy funds to EJ communities, which have historically been disinvested and overburdened by polluting facilities including energy generating facilities. In addition to providing direct funding through initiatives such as clean energy funds and Urban Community Energy Utilities, we encourage the state to enhance opportunities for community-owned energy assets such as community solar. Community solar

facilitates communities to access solar energy they may have been unable to otherwise and increases community empowerment and resilience through asset ownership. Following President Biden’s Executive Order 14008 and Justice 40 Initiative, which committed 40% of overall benefits from federal investments to flow to disadvantaged communities, we encourage the state to set aside at least 40% of community solar funds to low-and moderate-income. The state is in a prime position to accomplish this- having been awarded over $156 million in Greenhouse Gas Reduction funds through the Environmental Protection Agency’s Solar for All Program. An initiative to devote and direct funds to EJ communities, aligns with this significant investment’s goal to “… support solar access for multifamily affordable housing; establish pathways to residential solar ownership for low-income disadvantaged community (LIDAC) households; expand community solar initiatives; and support solar workforce development and enable critical grid upgrades to support more solar generation in New Jersey.”

Reviewing Income Eligibility Requirements

We encourage the state to review income eligibility requirements in order to ascertain if current thresholds are too restrictive and prohibit households in need from receiving support. Particularly as the cost of living continues to increase, it is incumbent upon the state to ensure that all households facing financial hardship and insecurity are able to receive support. We also encourage the state to consider eligibility requirements other than income. Income verification captures only one aspect of household stability and cannot make holistic determinations about a particular household’s financial needs. Finally, we support self-attestation and encourage the state to continue this verification option.

Key Section 3: Maximizing Energy Efficiency and Conservation, and Reducing Peak Demand

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It is essential that all efficiency programming is readily accessible to LMI communities, renters, and individuals who do not speak English as their primary language. Such inclusion will ensure that the entire state is on track to meet efficiency goals and climate targets.

NJEJA and ICC recommend employing a language justice framework\(^\text{17}\) within BPU practices and in partnership with local municipalities to ensure that every individual and resident of the state of New Jersey is aware of efficiency opportunities for their homes regardless of language and/or English proficiency. The BPU and local municipalities must engage with community-based organizations including non-profit entities, social justice groups, local faith groups, and social service organizations to ensure comprehensive reach across communities. Such partnership and relationship building is beneficial for increasing programmatic reach and building trust for long-term engagement. Furthermore, long-standing community engagement should and must include continuous interaction with communities and residents, particularly EJ communities, via stakeholder meetings, listening sessions, regular education, outreach workshops, and other similar initiatives.

Similarly, the BPU should implement energy efficiency programing directed towards low-income and communities of color as well as Indigenous communities across the state via Urban Community Energy Utilities and community organizations. NJEJA introduced this idea to the BPU in our 2019 EMP comments. A coherent urban energy strategy can and will make energy efficiency (EE) and renewable energy (RE) accessible to EJ communities by devoting at least one-third of clean energy funds to EJ communities and 40% of community solar to LMI customers. Furthermore, this strategy will include provisions that do not allow the siting of energy infrastructure in EJ communities. Finally, this strategy must include community residents, community groups, and EJ groups in the decision making processes for energy production. Such decision making processes can lead to the promotion of community-owned RE infrastructure in EJ communities and allow community based energy utilities to gather capital to continue the development of EE and RE.

\(^{17}\) A language justice framework seeks to ensure that all members of the community, regardless of shared language or English proficiency, can actively participate in conversation, community development, and shared space thus allowing for authentic and genuine engagement in one's preferred language. Antena. How to build language justice, 2013. https://antenaantena.org/wp-content/uploads/2012/06/langjust_eng.pdf.
Key Section 4: Reducing Energy Consumption and Emissions from the Building Sector

Recognizing the significant impact of building emissions on local air quality and greenhouse gas emissions, it is important for the BPU to ascertain what steps are feasible in order to meet climate and environmental targets. However, NJEJA and ICC do not support the language of “net zero” and do not believe that any mechanism for measuring emissions - either greenhouse gas or co-pollutant - should include the utilization of trading, offsets, or net calculations. Such mechanisms have not been proven to guarantee reduction of CO2 emissions in EJ communities, and have lead to extensive debate about their efficacy in general. However, even if such mechanisms did facilitate CO2 reduction, they do not address the danger of GHG co-pollutants either.

This connects to our previous notes on NJEJA’s Mandatory Emissions Reduction and Cumulative Impacts frameworks. Decreasing emissions from the building sector should include considerations that:

- Establish co-pollutant emissions reduction targets in addition to GHG emissions reduction targets;
- Create funding mechanisms that can lower the cost of heat pumps and pass these savings along to renters; and,
- Develop pathways for home improvement developments that include LMI communities and individuals who may rent or not own their home.

In relation to the Northeast States for Coordinated Air Use Management memorandum of understanding,¹⁸ NJEJA looks to examine how NJ can best implement the standards that have been memorandum. NJ has agreed to shared targets that require 65% of residential scale HVAC and water heating shipments to be zero emission heat pump equipment by 2030 and 90% by 2040.

Funds related to health, human services, housing, climate, and energy efficiency should be brought together in order to maximize program efficacy and intersectionality.

First, we recommend that the BPU create an EJ and equity advisory board on building decarbonization to help facilitate and inform the state’s rollout and implementation of building decarbonization measures. The BPU should support funding and programs for affordable whole-home retrofits that pair energy efficiency and electrification, particularly for LMI households. Such programs address health, safe, structural upgrades, and weatherization.

Additionally, the BPU should facilitate education, information, technical assistance, and funding to community-based organizations looking to support the implementation of these aforementioned measures in their communities.

Finally, the BPU must examine with scrutiny ways in which programs can include provisions that protect renters from being excluded from efficiency benefits and ensure that renters do not take on undue cost burdens all while not receiving demonstrable benefits.

**Key Section 5: Decarbonizing and Modernizing New Jersey’s Energy System**

Recognizing that investments in renewable energy and clean energy development are not viable without a reliable grid, investments in modernizing the state’s energy system is an integral component of revising the EMP. In general, NJEJA and ICC support investing in technologies such as microgrids, battery storage, solar farms, co-locating renewable energy, and investing in infrastructure to roll-out scalable renewable energy such as solar and wind\(^\text{19}\). All of these developments can minimize energy disruptions and disconnections, decreasing reliance on peaker plants while still decarbonizing our energy systems. Additionally, from the perspective of EJ communities, these technologies do not contribute to GHG co-pollutant emissions while still lowering CO2 emissions. Therefore, these solutions allow the state to continue to engage with

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climate mitigation policies and actively lower local air pollution levels at the same time. NJEJA and our EJ partners have written on these subjects extensively, and can be reviewed in our recommendations to the EPA in the non-regulatory docket on existing natural gas plants. In our comments, we highlight what should and should not be considered the best system of emissions reductions. Additionally, significant state investment in these technologies can relieve rate-payers of additional costs and financial burdens as these projects are rolled-out and scaled for widespread usage.

Likewise, as NJEJA noted in comments on the 2019 EMP, equity and justice should be conceptually incorporated into grid modification, operation, and development plans. In general, cost has been considered the priority factor in planning processes. However, we would posit that the cumulative impact of emissions burdens on EJ communities should be the central and determining factor in conceptual development. An equity lens here would ensure that the mapping of plants, projects, and developments both understands and seeks to mitigate the harm that EJ communities navigate.

Furthermore, as far as we have been able to note, we have not seen these frameworks incorporated into plan development. Identifying areas of cost efficiency and upgrades are important, but must include equity lens in determining what communities have been historically excluded from these conversations. Such communities include overburdened communities, communities of color, low- and moderate-income communities, renters, and EJ Communities, whose demographics tend to overlap. In order to reach these goals, the BPU should consult with EJ communities and CBOs to hear from residents about their concerns, and incorporate their feedback directly into the planning process.

As previously articulated, NJEJA and ICC do not support continued utilization of nuclear energy, waste-to-energy, incineration, biomass burning, hydrogen co-firing, and carbon capture (CCS/CCUS) as alternative solutions to decarbonization as they all have and continue to impose significant risks and impacts on EJ communities. No emerging or existing technologies should further contribute to cumulative impacts of overburdened communities or EJ communities. Each individual project and technology should be assessed for its potential impact on host
Key Area 6: Supporting Community Energy Planning and Action in Underserved Communities

With respect to continued engagement with historically marginalized communities, NJEJA has highlighted numerous opportunities for engagement throughout the key areas above. We continued to advocate for inclusion of OBCs, EJ communities, LMI communities, and other under-represented communities in all aspects of energy planning, modernizing, and technological development. Those that live in overburdened and disproportionately polluted communities have the best understanding of the challenges they face, and the first-hand knowledge of what solutions would mitigate these issues.

Community energy planning must begin with surveying and determine the energy needs of a community. Only then can planners have an accurate understanding of the unique needs of that particular community. Residents should be actively involved in determining how to meet those needs (i.e. deciding what type of energy sources are needed, and if renewable energy is located in a community, then where these energy sources will be placed and how they will be run). Residents must also be active leaders in determining what co-benefits of energy production are most important. Decisions should not and cannot be made by energy professionals on behalf of communities.

Key Area 7: Expanding the Clean Energy Innovation Economy

Sustained planning and engagement with underserved communities as part of a Just Transition must engage in cross-sector dialogue to ensure that labor groups and EJ communities are able to work together in partnership to provide necessary job training and preparedness for active participation in the clean energy economy. The state should prioritize outreach, engagement,
workshops, and training programs in low- and moderate-income communities and EJ Communities as they have historically been excluded from these opportunities. Such programs provide pathways for upward mobility and readiness for finding careers in a shifting energy economy and employment landscape.

As starting points, we suggest exploring programs such as fully-funded apprenticeships and training programs so that individuals can receive the necessary training and skill set for active participation in the clean energy economy without needing to sacrifice financial stability. Likewise, the state should explore programs to facilitate resource distribution and mobilization to CBOs who run these programs in order to increase organizational capacity and serve more members of the community. Training should also be provided in non-English languages to account for communities whose primary language is one other than English.

Furthermore, any and all job training programs should be conducted alongside community organizations in order to ensure that targeted outreach and intentional relationship building is done. As highlighted in above sections, EJ communities and historically under-served communities face unique sets of challenges, such as lack of accessible transportation, financial precarity, and lack of consistent childcare which can be addressed through a job training program. An anchor community organization with deep connections to the community would have the best knowledge about such issues, therefore supporting these existing organizations and funding new job training programs with them can address previously identified outreach and engagement challenges that the state may face.

Finally, NJEJA and ICC note the importance of fostering ethical practices in supply chain development. Developing a clean energy economy will require new supply chains and modes of resource management, however such supply chains should not contribute to nor exacerbate ongoing human rights violations. We encourage the state to develop an ethical supply chain
framework, relying on other states, nations, and international bodies who have already begun conversations on this important work.  

**Closing Thoughts**

These comments have been submitted in an effort to share education and understanding with the Board of Public Utilities. As EJ organizations, we understand the nuance and the lived experience of our communities and the ways that our daily lives are impacted by energy development within the state and surrounding region. We uplift the knowledge of our communities and share our concerns with emerging technologies such as carbon capture and hydrogen, as well as the risks with incineration, nuclear, LNG, and any type of energy production that does not guarantee reductions in CO2 emissions and GHG co-pollutants. However, we also share our support for the robust development of solar, wind, and small hydro-electric projects, particularly those that are community-owned and provide power to EJ communities. Such projects are key to generating increased trust and community engagement that improve public health outcomes and relationships between stakeholders. We continue to offer support in building a more resilient, renewable energy system in New Jersey and are willing to engage in ongoing conversation with the NJBPU concerning the thoughts presented in these comments.

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