



From: Amy Goldsmith, NJ State Director, Clean Water Action  
To: Board of Public Utilities Secretary, Sherri L. Golden  
Re: Docket No. QO24020126 Energy Master Plan-2024 Update

DATE: June 10, 2024

Together with Clean Water Action's membership and over 75,000 email alert subscribers, we represent New Jersey residents seeking a squeaky clean energy path going forward that provides power to meet future needs, meets our ambitious climate goals, as well as protects our physical health and economic well-being as if our life depends on it as it does. Ultimately our comments reflect the following goals:

1. Reducing Energy Consumption and Emissions from the Transportation Sector;
2. Accelerating Deployment of Renewable Energy and Distributed Energy Resources;
3. Decarbonizing (phase out fossil fuels and nuclear) Energy Sector;
4. Modernizing New Jersey's Energy System, and
5. Ensuring that communities (predominately Black, Brown, low income and with limited English proficiency) with a long history of being overburdened by multiple sources of pollution and co-pollutants in the energy/transportation sectors are given priority for truly green options first.

Since the New Jersey 2019 Energy Master Plan (EMP) was first released, the scientific evidence has only become more alarming. The evidence and impacts of climate change have accelerated, been more expensive and destructive to our communities, businesses, ecology and quality of life. It therefore becomes even more imperative to:

- Make the EMP a Real Executable Plan with quantifiable goals and means to achieve them
- Place a Moratorium on New Fossil Fuel Projects (power plants, pipelines, etc.)
- Address Methane Leaks by allowing no new hookups, converting to heat pumps and electric appliances
- Ban or at Least Minimize the Use of Hydrogen to only truly green fuel cells
- Address the Harms from Air Pollution using a justice and health lens
- Redefine Clean Energy and Recognize the Dangers of False "Low Carbon" Solutions and Net-Zero Emissions
- Utilize the Total Costs of Climate Harms and Costs of Mitigation in Creating Policies
- Require GHG Regulations Aligned with State Targets and Timelines
- Ensure Legislative Action, Budget, Regulations and EMP are not in Conflict

**1. The EMP Must Become a Real Plan**

The 2019 EMP called for 100% clean energy by 2050 to be accomplished in 30 years but the document was mostly aspirational without interim benchmarks and executable actions. In light of the speeding up of the climate crisis and urgency to act, the State has moved up its target to 100% clean energy by 2035. We cannot afford a plan that speaks in generalities, the 2024 EMP must contain quantifiable goals and actions, resources to accomplish them, definitions of success, timely mechanisms for adjusting and accelerating action required in the future.

**2. The EMP Must Call for a Moratorium on New Fossil Fuel Projects**

The EMP must include a moratorium on all new fossil fuel projects and other projects such as hydrogen hubs that will emit potent GHGs. The State cannot wean itself off fossil fuel if it keeps permitting more fossil fuel infrastructure to be constructed. In the end, they will become stranded assets over time – causing both an economic hardship on power producers and ratepayers. Scarce resources would be better spent on creating more truly green renewable energy sources, energy efficiency and conservation.

**3. The EMP Must Address the Climate Threat from Methane Gas Leaks**

Methane is responsible for about 30% of climate warming in the U.S. This is because methane captures 86 times more heat than CO<sub>2</sub> over a 20-year period. The EMP must include specific policies and programs for reducing methane emissions that go beyond utility efforts to fix leaks – a costly effort that will take years and will still not fully address the problem. The EMP must include policies and plans to prevent use of new “alternative” fuels such as biogas (which is basically methane), stop building new gas infrastructure, end new gas hookups and rapidly accelerate the use of cold weather heat pumps and other electric appliances in new and existing buildings.

**4. The EMP Must Ban or at Least Minimize the Production and Use of Hydrogen**

A major benefit claimed for hydrogen is that it decarbonizes the atmosphere. Hydrogen itself is actually an indirect GHG and will cause warming when emitted into the atmosphere. Hydrogen has 100 times the warming effect of CO<sub>2</sub> over a ten-year period.

Hydrogen is the smallest molecule and known to easily leak into the atmosphere. A hydrogen leak rate of 10% across the value chain making production and distribution of hydrogen three times worse in terms of climate impacts than methane. Methane’s 10-year global warming power is about 104 (close to hydrogen’s) but its life cycle leak rate is only 3% due to its larger molecular size. Hydrogen has the added problems of causing embrittlement, increasing the rate at which its infrastructure leaks.

NJ should not allow the combusting any type of hydrogen in a power plant as it leads to formation of nitrogen oxide (NO<sub>x</sub>) emissions up to six times that of methane. NO<sub>x</sub> is a powerful GHG with a lifetime of about 10 years that captures almost 30 times the amount of heat as CO<sub>2</sub>. NO<sub>x</sub> is also an ozone precursor. The disproportionate health impacts of largely EJ communities living near power plants would heighten rates of heart disease, asthma, birth defects, premature death and more. Therefore, the only uses of hydrogen that should be permitted are for applications that only involve green hydrogen in fuel cells to produce electricity. No burning of hydrogen should be allowed.

#### **5. The EMP Must Address the Harms from Air Pollution and Set Appropriate Goals**

While controlling or minimizing the emissions of harmful air pollutants is not the subject of the EMP, Clean Water Action calls on the NJBPU to include specific goals in the next version of the EMP for reducing harmful co-pollutants, especially in EJ communities, commensurate with the goals of reducing GHGs.

#### **6. The EMP Must Redefine Clean Energy and Recognize the Dangers of False “Low Carbon” Solutions and the Target of Net-Zero Emissions**

The original goal of the 2019 EMP was 100% carbon neutral (net-zero) energy by 2050. Since then the State has accelerated its goal of 100% clean energy by 2035. However, the definition of “clean” includes dirty technologies such as burning carbon-based fuels like, ineffective market-based schemes such as carbon offsets, pollution credits and other pay to pollute schemes, garbage incineration, aging and new nuclear power plants, and more fossil fuel power projects with carbon capture and storage, an expensive technology that has never shown any commercial or practical viability. Any and all of these options disproportionately impact low-income communities and communities of color and block progress towards achieving the 100% renewable energy economy we urgently need.

The EMP must clarify the definition of clean energy to exclude these dirty solutions and only allow the use of truly clean renewable energy technologies such as solar, wind, geothermal, heat pump and tidal, along with storage.

The EMP must also recognize and address the danger of net-zero emissions technologies. NJ legislators are currently proposing bills that are based on the use of technologies that would purportedly achieve only net-zero emissions or even worse would use carbon-based fuels that only have lower GHG emissions than current fuels - not zero emissions. Removing methane and diesel pollutants (particularly Black Carbon, or soot) would result in a much faster and more potent global warming reduction than removal of CO<sub>2</sub> which remains in the atmosphere for extended periods of time.

*We must reach net-zero more swiftly by committing to only using zero-emissions technologies, such as wind, solar, hydroelectric, heat pumps, tidal and storage, while protecting natural carbon sinks, mainly wetlands and forests. These technologies immediately reduce total atmospheric carbon. We must not use technologies such as RNG to achieve net-zero as they only make it more costly and take longer to convert to zero-emissions technologies.*

**7. The EMP Must Utilize the True and Total Costs of Climate Change Harms, Adaptation and the Costs of Mitigation in Creating Policies and Prescribing Actions**

The total life cycle economic, social and health costs of burning fossil fuels, as well as methane and hydrogen leakage (both however produced), including the costs from co-pollutant emissions, must be disclosed and utilized by the EMP in setting policies. This includes direct and indirect costs from the harms caused by these emissions as well as the cost to adapt to these emissions. The costs of harms and adaptation must be compared to the costs to mitigate/prevent these harms in order to fully understand the financial tradeoffs and make the best long term decisions for the State. As reported in the April edition of Nature, the costs from climate change damages outweigh mitigation costs by a factor of six.

**8. The EMP Must Require GHG Regulations Aligned with State Targets**

As mentioned earlier the 2019 EMP set goals and called for regulation of all GHGs in order to achieve NJ's GHG reduction targets. Five years later, despite creation of the NJ Protect Against Climate Threats (NJPACT) program, which implemented limited regulations of GHGs only from power plants, but not for our dirty peaker plants. In contrast, New York has plans to replace all its dirty peakers with storage and wind power. Additionally, NJ does not have a set of regulations for each industry sector (transportation, residential, commercial, industrial, waste management, natural gas and other non-energy sources) that can clearly demonstrate they will meet State GHG reduction targets (50% by 2030) and clean energy (100% by 2035).

**9. The EMP Must Acknowledge and Address the Problems Caused by the Lack of a Real Plan**

Without a comprehensive Energy Master Plan with definitive timelines, and actions, the various branches of government are often at odds with one another and acting under pressure at cross purposes.

Legislators are writing their own clean energy plan without consideration of EMP or GWRA. They are bowing to pressure from fossil fuel companies to pass legislation such as the Low Carbon Fuel Standard, the Emissions Reduction Innovation Act and the Renewable Natural Gas Act which mandate false solution type fuels (RNG, biogas, biomass-based diesel, fuels from carbon capture hydrogen, ethanol, etc.) for buildings and transportation. This will increase the cost of heating and transportation fuels, prolong the use of fossil fuels and fossil fuel infrastructure, increase deadly air pollution, create fraud prone carbon credit schemes, slow down the installation of true zero emissions technologies and increase GHG emissions regardless of the EMP targets.

Under the current administration, the DEP has regulations that will prolong the use of dirty peaker plants and may approve permits for new fossil fuel projects (powerplants, pipelines, compressor stations etc.). The governor promotes the transition to EVs but is proposing to take away purchasing incentives (sales tax exemption) while proposing an annual tax on EVs. The NJDOT is moving forward on a major long-term highway expansion project with no consideration of the impact on climate change.

This work of converting the Garden State to a green energy state is challenging enough; but when the legislative and executive branches work at cross purposes makes it almost impossible to move forward. This has to stop!

A real energy master plan must have measurable timelines and benchmarks that meet the legal obligation of existing law and policy, sufficient resources to accomplish the stated goals, elimination of subsidies and give aways to fossil fuels and false solutions. The time to act is now!

Thank you for your consideration of these comments.

Cc: Governor Murphy  
Christine Guhl-Sadovy  
Shawn LaTourette  
Eric Miller  
Henry Gajda  
Chance Lykins