

Dear NJBPU EMP,

On 7/17, I heard President Fiordaliso speak prior to public comments at the public comment session in Trenton. There was an additional person speaking in the same tone that the president spoke. "Congratulatory, tough job/accomplishment, touting the revolutionary EMP results from NJBPU and how the focus is and must be keeping rates low for residents."

The final point I agree with. The agencies need to derive opportunities in change that stimulate investment into the transformation that must occur while stimulating customers to enforce transformation by switching to clean energy because it offers lower rates and enables NJ to convert to 100% clean energy by 2050.

Let's review the Governor Murphy May 23, 2018 Executive Order 28 requirement to NJBPU:

Begin "

- WHEREAS, traditional methods of energy production that rely on the burning of **fossil fuels release harmful emissions** of carbon dioxide and other greenhouse gases, which in turn **contribute to global climate change**; and
- WHEREAS, in order to curtail the serious impacts of global climate change caused by greenhouse gas emissions, **New Jersey must shift away from its reliance on fossil fuels as a primary energy source and turn to clean energy sources**; and
- WHEREAS, my administration has already taken several steps to move New Jersey in this direction, including Executive Order No. 7 (2018), which directed New Jersey to begin the process of re-entering the Regional Greenhouse Gas Initiative, and Executive Order No. 8 (2018), which emphasized the vital importance of offshore wind energy to the State of New Jersey; and
- WHEREAS, by law, N.J.S.A. 52:27F-14, et seq., the State of New Jersey, through the Energy Master Plan Committee, is required to prepare an Energy Master Plan and revise and update that plan at least once every three (3) years; and
- WHEREAS, New Jersey's Energy Master Plan is intended to set forth a strategic vision for the production, distribution, consumption, and conservation of energy in the State of New Jersey; and
- WHEREAS, the Energy Master Plan was last updated in 2015; and
- WHEREAS, in order to achieve appropriate reductions in dangerous greenhouse gases, New Jersey must overhaul the 2015 Energy Master Plan and adopt an innovative Energy Master Plan that recognizes the need for significant investment and support for clean energy sources, particularly the considerable opportunity for the development of wind energy in New Jersey, and that aims to shift New Jersey's energy production profile away from reliance on outdated technologies that contribute to global climate change and towards clean energy sources;

NOW, THEREFORE, I, PHILIP D. MURPHY, Governor of the State of New Jersey, by virtue of the authority vested in me by the Constitution and by the Statutes of this State, do hereby ORDER and DIRECT:

1. The President of the Board of Public Utilities shall convene the Energy Master Plan Committee within thirty (30) days of the date of this Order, and shall also designate a senior staff member of the Board of Public Utilities to serve on the Energy Master Plan Committee. That designee shall serve as the chairperson of the Committee.
2. The heads of the following principal departments of the Executive Branch of State government shall designate a senior staff member from their respective departments to serve on the Energy Master Plan Committee: 1) Department of Community Affairs; 2) Economic Development Authority; 3) Department of Environmental

Protection; 4) Department of Health; 5) Department of Human Services; 6) Department of Transportation; and 7) Department of the Treasury.

3. The Energy Master Plan Committee shall prepare, complete and deliver a new Energy Master Plan, consistent with the provisions of N.J.S.A. 52:27F-14, et seq., and this Order on or before June 1, 2019.

This **2019 Energy Master Plan** (the “2019 Plan”) ***shall*** provide a comprehensive blueprint for the **total conversion** of the **State’s energy production** profile to **100% clean energy sources on or before January 1, 2050**, and ***shall*** further **provide specific proposals** to be implemented over the **next ten (10) years** in order to achieve the January 1, 2050 goal.

4. The 2019 Plan shall incorporate the offshore wind development goals set forth in Executive Order No. 8 (2018) and also shall include recommendations consistent with the provisions of the Offshore Wind Strategic Plan. In addition to wind energy development, the 2019 Plan shall include provisions guiding the continued development of solar energy in New Jersey, including community solar projects.

5. The 2019 Plan also shall include recommendations to position New Jersey as a leader in clean energy storage, including the establishment of goals of 600 MW of energy storage by January 1, 2021 and 2000 MW of storage by January 1, 2030. The 2019 Plan shall also provide specific proposals to be implemented over the next ten (10) years in order to achieve the January 1, 2030 goal.

The 2019 Plan shall also explore methods to incentivize the use of clean, efficient energy and electric technology alternatives in New Jersey’s transportation sector and at New Jersey’s ports.

6. Should any part of this Order be declared to be invalid or unenforceable, or should the enforcement of or compliance with any part of this Order be suspended, restrained or barred by the final judgment of a court of competent jurisdiction, the remainder of this Order shall remain in full force and effect.

7. This Order shall take effect immediately.

“ End of Executive Order 28 quote.

The Draft Energy Master Plan issued on June 10, 2019 failed to adhere to Governor Murphy’s Executive Order on several levels:

1. Failed to acknowledge, define and set Clean Energy as the defining criteria of the Energy Master Plan
 - a. Instead positioned Governor Murphy’s Executive Order 28 as impossible and changes the context to GWRA reduction aspirations of 80% of 2006 by 2050.

“However, there is also evidence that New Jersey’s current trajectory and efforts will be insufficient to reach the goals we have established to address climate change, including Governor Murphy’s goal of 100% clean energy by 2050 and the Global Warming Response Act (GWRA) state greenhouse gas emissions reductions of 80% below 2006 levels by 2050. Despite the state’s successes since 2006 in reducing its carbon emissions, this is our current reality and our challenge.”
 - b. Then artfully redefines clean energy as Carbon Neutral

“The EMP defines “100% clean energy by 2050” to mean 100% carbon-neutral electricity generation”
 - c. Adds in a claim that the new redefined goal will drastically reduce demand for fossil fuels.

The only reduction stated in the DEMP is a .75% reduction in natural gas consumption (not in any reduction of natural gas supply). This opens the floodgates of natural gas supply under the guise that residents of New Jersey will reduce their consumption by ¾ of 1%.
2. What is Clean Energy?
 - a. Not carbon neutral, but rather without carbon in any of the phases of energy: Sourcing, distribution, storage and fuels.
 - i. Sourcing: renewable energies that harness energy from sunlight, wind, rain, tides, waves and geothermal.

- ii. Distribution: Electricity and hydrogen are currently the only clean energy distribution methods.
 - iii. Storage: Hydrogen is the only currently available clean energy storage.
 - iv. Fuels: Hydrogen is the only currently available clean energy fuel.
 - v. Distribution: Hydrogen and Electricity are currently the only clean energy distribution.
3. Did the EMP mention Hydrogen? Yes, **4 times in a 108-page master plan.**
 - a. Page 28 as a possible option for electric vehicles.
 - b. Page 33 as a part of a list of potential clean vehicle technologies that also includes natural gas (fossil fuel).
 - c. Page 35 (twice) as a hypothetical possibility – ‘may play larger role’ in the future and that NJBPU should monitor it.
 4. Why is Hydrogen not mentioned as a viable clean energy an issue?
 - a. It demonstrates that NJBPU and the committees did not perform even a cursory evaluation of the rapid implementation of hydrogen around the world. Instead, the EMP resorted to old technologies and frameworks for NJ energy. The latest trend indicates that high capacity batteries will change over to hydrogen in the next 10 years. Why was Hydrogen economy and current operation today not mentioned?
 - b. California and many countries (Japan, China, France, Germany, Australia, UK and recently Singapore) are rapidly changing their energy investments towards a hydrogen energy infrastructure.
 - c. California already has more than 15,000 hydrogen fuel cell cars on the road and 40 hydrogen gas stations.
 - d. Nikola Motors scheduled to build more than 8,000 hydrogen fuel cell trucks starting delivery in 2020.
 - e. Hydrogen is required to enable smart distributed scalable grid restructuring that is necessary for converting to 100% clean energy. The utilities will evolve to manage and enable the clean energy smart grid.
 5. Was “shall further provide specific proposals to be implemented over the next ten (10) year” detailed in EMP?
 - a. No specific 10-year plan. Instead, a handful of goals were introduced and interspersed throughout the Draft EMP, with most scheduled deliverables being beyond 10 years.
 - b. The EMP doesn’t even map out any short-term changes that must to occur in the agencies and policies to stem the rapid increase of fossil fuel expansion occurring in New Jersey. This is especially true for Natural Gas expansions with many projects that are adding old technology to pipelines installed more than 50 years ago in order to enable increased capacity traversing through New Jersey from Pennsylvania for states north and south of NJ. This rapid expansion of many pipeline projects undermines and disables New Jersey from achieving 100% conversion to clean energy by 2050 or even by 2100 if left unaddressed immediately.
 6. Did the 2019 Draft EMP review any current risks in NJ climate or from increased emissions of natural gas?
 - a. Did not review current climate trends or risks. ***NJ average temperature increased 3 degrees Fahrenheit from 1970 to 2018*** (source <https://www.climatecentral.org/news/new-jersey-warming-alarming-rate-air-pollution>).
 - b. Did not even map out current pipeline of natural gas expansion projects underway and proposed for NJ. Projects include natural gas fired turbines for power plants and compressor stations in NJ. This means the methane emissions will dramatically increase. Natural gas industry uses outdated (1990) technology that emits a significant portion of natural gas in the exhaust as unburned. Even the manufacturers of the turbines state that GHG emissions (methane and CO2) cannot be guaranteed and will increase over time. Transcontinental Northeast Supply Enhancement project proposes CS206 which comprises of 2 old MARS 100 turbines that will emit 33.41 tons of methane and 130,863.61 tons of CO2 in the exhaust for the first year and as time progresses, will emit greater amounts year over year. This is also true for the Meadowlands Power Plan that proposed 2 turbines, which were defined as initially emitting 73 tons of Methane and 3,500,000 tons of CO2 in the first year with risk of increasing year over year. These 2 projects are for New York City, but adding capacity through NJ outdated pipelines installed more than 50 years ago.

7. Does the 2019 June 10 Draft Energy Master Plan meet Governor Murphy's Executive Order?
 - a. **Not in definition:** Remastered clean to include fossil fuels, especially natural gas.
 - b. **Not in goals:** Remastered achievements to be passive elusive long-term objectives.
 - c. **Not in a blueprint:** The 7 strategies only tacitly touch upon reduction of fossil fuels.
 - d. **Not in attaining 100% conversion to Clean Energy by 2050.**
 - e. **The Draft EMP doesn't meet Governor Murphy's Executive Order 28.** Instead, it presents no change in operations of agencies overseeing energy (NJBPU, NJDOT, NJDEP), presents no pathway forward for converting existing fossil fuel energy infrastructure (especially natural gas) to clean energy and it doesn't even define a clean energy end state. It does present status quo with goals that may or may not be met.

What is missing from the 2019 June Draft Energy Master Plan?

- Transformation of New Jersey Agencies to support and enable moving towards Clean Energy by 2050.
- Plan that outlines strategic 5-year and 10-year plans targeting to spur change immediately.
- Any real **monthly metrics** proposals or tracking that indicate New Jersey is moving to Clean Energy.
- **No project management** of any kind detailed that tracks progress, support agencies, facilitates collaboration and change and monitors progress of the transformation program necessary to achieve 100% conversion.
- **No mention of** the significant investments worldwide in **the Hydrogen economy**.
- No details of new innovation that could radically eliminates fossil fuel consumption that are currently available.
- **No immediate or even eventual policy shifts** that will help promulgate a new clean energy shift.
- No details provided of New Jersey Agencies that indicate any real change in how New Jersey consumes energy.
- **No specific future state aspirations or definition to meet true Clean Energy** (not elusive carbon neutral).
- **No blueprint or even anecdotal indication of a way forward towards 100% conversion to Clean energy.**

Instead, BPU published the 2019 June 10 Draft Energy Master Plan that speaks to some limited improvements that, in as far as BPU's mission, ensure residents enjoy continued low rates on natural gas.

I urge NJBPU to aggressively and holistically 'gut' and replace the 2019 June 10 Draft Energy Master Plan with a statement that:

- Rescind the 2019 June 10 Draft Energy Master Plan
- Clearly identifies Clean Energy (renewable energies, hydrogen and electricity)
- States deficiencies in NJBPU as being the proctor for change (conflict in interest).
- Ask Governor Murphy to create a Clean Energy Program Management Team
- Commit to work with the Clean Energy Program Management Team
- Start providing monthly metrics (key performance indicators)
- Urges that Governor Murphy Issue a moratorium on all natural gas expansion projects immediately

New Jersey Climate Change risks are not about average temperature increases for the entire world. Instead, it is about what is the trend and changes occurring in New Jersey. That is what New Jersey can strive to contain. The Draft EMP failed to review this and most data provided only goes to 2015 for emissions. NJDEP has means to add more recent emissions data, but doesn't. NJBPU has means to add more recent energy data, but doesn't. The impacts to New Jersey are already apparent and portend of a more hostile NJ environment in the near term. Why was this missed?

**NJ is at climate crisis now and requires a real energy master plan
that maps out 100% conversion of fossil fuels to Clean Energy by 2050
and includes strategic 5-year sprint to launch drastic changes required in NJ Agencies.**