

From: [Graham, Karriemah \[BPU\]](#)
To: [Reed, AlJawann \[BPU\]](#)
Subject: FW: [EXTERNAL] Public Comment Docket Number: QO24020126
Date: Wednesday, June 12, 2024 12:20:39 PM

Please upload email comment and make public.

From: Gray, Dawn [BPU] <Dawn.Gray@bpu.nj.gov>
Sent: Wednesday, June 12, 2024 11:58 AM
To: Graham, Karriemah [BPU] <karriemah.graham@bpu.nj.gov>
Subject: FW: [EXTERNAL] Public Comment Docket Number: QO24020126

From: John schwarz <John.schwarz.693941994@yourconstituent.com>
Sent: Friday, June 7, 2024 8:21 AM
To: Secretary, BPUBoard [BPU] <Board.Secretary@bpu.nj.gov>
Subject: [EXTERNAL] Public Comment Docket Number: QO24020126

To Whom to May Concern,

As a resident of the state of New Jersey, I am deeply concerned about the New Jersey Board of Public Utilities 2024 Energy Master Plan. Please accept this email as my comment submission NJBPU Docket Number: QO24020126.

New Jersey desperately needs affordable energy and realistic energy solutions. If we are serious about tackling our energy needs while taking cost, reality and feasibility into account...then the 2024 Energy Master Plan should be completely written to include the significant investments in natural gas , propane, hydrogen and nuclear we all know are needed, not the promises and failures of the previous six years.

Sadly, the 2024 Energy Master Plan will likely be little more than an unrealistic update of the 2019 Energy Master Plan that completely lacks transparency in the base assumptions of energy users and completely ignores the real cost to residents.

The 2024 EMP will continue the same policies that will not work. The EMP will continue to propose policies to forcibly “electrify” most energy use—cars and trucks, space heat and hot water, stoves, and even airplanes—and serve those end uses with electricity generated from wind, solar, and other zero-emissions resources, including the state’s two remaining nuclear plants. Consumers deserve choice , which should include their energy sources. The EMP eliminates these options, and for that I strongly disagree.

The 2019 EMP called for the mass adoption of electric heat pumps in residential and commercial buildings for both heat and hot water. It called for a forced transition to electric vehicles, and 100% clean energy by 2050. It called for building thousands of megawatts of offshore wind and carpeting the state with solar panels. It called for building thousands of megawatts of battery storage facilities that would, the 2019 EMP claimed, power the state when the sun wasn’t shining or when the wind wasn’t blowing. None of the 2019 EMP’s goals are remotely close to being achieved.

Building Electrification

There are approximately 2 million single-family homes in the state. According to US Census data, approximately 75% of all residential single-family and multi-family residential homes use natural gas, and another 10% use oil and propane as their primary heat source. The state recently joined a nine-state effort to speed the adoption of heat pumps.

The state has established a goal that NJ achieve 65% saturation of heat pumps in residential buildings by 2030. Today, just five percent of residential households (around 40,000), primarily newer households, have heat pumps. These heat pumps fail to work in any efficient manner on the coldest of winter days – exactly when they are needed the most. I believe we should have heating solutions that work in the winter, not something unreliable.

The previous EMP established a goal of 400,000 residential heat pump retrofits by 2030, roughly 25% of the housing stock, along with 200,000 commercial buildings. These goals are to be achieved with massive subsidies and prohibitions on natural gas connections in new construction.

Observed heat pump installation and retrofit costs also have proven to be far higher than estimated by the previous EMP. Those estimates were based on models, not actual experience. Furthermore, the previous EMP ignored the fact that lower-cost, air-source heat pumps typically require secondary heating systems in colder weather. Thus, there appears to be neither an economic nor environmental justification for subsidizing the installation of heat pumps for the foreseeable future.

As for installing heat pumps in commercial buildings, the experience in New York City under the Local Law 97 requirement has been that such installations are far more complex and costly than anticipated. Even with rebates, the cost to electrify one Brooklyn co-op are \$40,000 per apartment. The cost to retrofit one of the New York City Housing Authority's apartment buildings was \$176,000 per apartment. Homeowners should expect between \$25,000-\$50,000 for heat pump installation in a single family home – while being lucky to get \$2,000 in tax benefit back.

EVs

New Jersey has adopted California's Advanced Clean Car rules and mandated that all new vehicles sold in the state be electric by 2035. The BPU asks about incentives. Translated, that means more subsidies for EVs, whose sales are declining. Today, EVs are exempt from the state sales tax. They are exempt from fuel taxes that pay for maintaining New Jersey's roads. Where will the money come from? The last EMP never considered that issue, as if the money would just fall from the sky or be provided by the federal government. Will the new EMP address funding? The state simply cannot rely on never-ending federal subsidies to reduce the costs of the envisioned EV transformation. This will end up on us the taxpayers and that is unacceptable.

And despite massive state and federal subsidies, electric vehicle sales have leveled off. A total of 134,000 EVs have been sold since 2011. About 53,000 were sold last year. The 2019 EMP requires 330,000 to be on New Jersey roads by next year.

The 2019 EMP also did not consider the costs of the additional infrastructure that will be required. That includes upgrading electric service for millions of homes and apartment buildings. Those upgrades include replacing transformers to handle much larger electric

demand from Level 2 EV chargers. It includes upgrades to the service boxes in older homes to accommodate larger loads. It includes rewiring local distribution lines to handle larger loads. Local distribution system upgrades will cost millions, if not billions of dollars, further increasing electric rates and increasing the adverse economic impacts of those higher rates, especially on lower-income New Jerseyans.

What about public charging stations? Charging stations with multiple DC chargers can draw as much electricity as a small town. Who will build them? Where will the money come from? These charging stations will also require new high-voltage circuits and huge electric transformers, which must be ordered years in advance. The infrastructure also will require huge increases in supplies of copper and electrical steel. The lack of sufficient supplies means that prices will increase, raising the costs of the EMP's envisioned EV transformation.

The final irony is that, for the foreseeable future, most EVs will be charged by natural gas generation, which is the marginal generator in PJM about 60% of the time. This is all before we talk about the significant weight increase and damage to our road and bridge infrastructure as well as the need to rebuild the majority of our vertical parking as they were not designed for the additional significant weight of EV batteries.

Wind

Lastly, the state of New Jersey needs to go back to the drawing board when it comes to Offshore Wind. This has been a billion dollar boondoggle from the beginning and the taxpayers have been left holding the bag. It is farcical to think that by issuing 11,000 MW on paper without a single turbine installed that the mission accomplished banners should be flown.

Despite the governor's mandate for 11,500 megawatts of offshore wind, no offshore wind has been built. That's actually a good thing, as offshore wind is a high-cost, inefficient, and economically and environmentally damaging.

What is this going to cost? What ships will we use to install? Who will work on the ships? Do we have enough materials to build the cables? And will this provide any real environmental impact? None of these questions can be sufficiently answered.

Grid

This year power grid failed 7 times in 6 months in my town of Southampton. This needs to be up graded prior to moving forward with any electricification. I'm thankful that we have a gas generator.

The 2019 EMP was virtually silent about electric reliability, other than stating that, by 2035, additional dispatchable resources would be needed. Like New York, the previous EMP envisioned the interconnection of zero-emissions distributed energy resources. But what happens when the sun doesn't shine and the wind doesn't blow, especially for extended periods in the winter? The previous EMP called for 2,000 MW of battery storage by 2030. According to data published by the U.S. Energy Information Administration (EIA), at the end of 2022, there was a total of 43 MW of battery storage in the state, along with one pumped-storage hydroelectric facility that has operated for decades. The costs of battery storage remain prohibitive. Given the increase in raw materials costs, it will likely remain so for the foreseeable future.

Even if the 2,000 MW of battery storage is developed, it will not offset wind and solar

droughts. According to the EIA, total electricity sales in the state were over 70 million megawatt-hours (MWh), an average of about 192,000 megawatt-hours per day. For typical 4-hour battery storage, that means at most 8,000 MWh of battery storage back-up, about 60 minutes' worth at current consumption. Of course, electrification of vehicles and space and water heat likely will double electricity consumption, even with energy efficiency efforts, which means battery storage will not provide any significant ability to forestall periods where there is no wind and solar power. To date, we have yet to build a single MW of new battery storage in New Jersey.

The state of New York plans to address the problem of intermittent wind and solar power using what are called "Dispatchable Emissions-Free Resources" (DEFERs) and assumes thousands of MW of these generators will be in place by 2040. No such technology even exists today. How will the new EMP address this? The previous EMP assumed these technologies would be invented, commercialized, and installed. This is dangerous and irresponsible when it comes to such an important part of our everyday lives.

In Closing

Please, for the taxpayer, stop this from moving forward and go back to the drawing board to include significant investments in natural gas , propane, hydrogen and nuclear real policy that will benefit New Jersey – not force the export of jobs, tax dollars and resources.

John schwarz

46 Oxford Circle, Southampton Township, NJ, USA

[1] Diversified Energy Specialists, "Case Study: Massachusetts Air-Source Heat Pump Installations, 2014-2019," Report prepared for National Oil Heat Institute, November 19, 2019.