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Board of Public Utilities

via Email: emp.comments@bpu.nj.gov

September 9, 2019

RE: Comments on Draft 2019 Energy Master Plan

This letter serves as comments on the above Draft EMP from the perspective of water and wastewater utilities as well as the economy of Sothern NJ. The Landis Sewerage Authority has numerous sustainable practices including solar, wind, EV stations, and CHP from digester/ biomass and liquid food waste. We will have planted over 120,000 trees by 2020 for carbon sequestering. With that said, we also recognize an ongoing need and use of gasoline and diesel as part of NJ energy future. We also see numerous real-world negative problems and unintended consequences with the plan.

1. Redundancy and resiliency: Utilities absolutely need to have back up emergency generators and /or pumps usually powered by diesel engines. After Sandy many utilities have also moved to natural gas so as not to be constrained by truck deliveries of fuel. The time needed for emergency power can well exceed a week or more as demonstrated by Sandy and a derecho storm that crossed NJ and knock down large areas of power lines. The elimination of fossil fuels will expose NJ water and wastewater utilities to having no back up emergency power. Batteries are not sufficient to provide power for extended periods of time and at the high-power demand of pumping stations and treatment plants. Our longest power outage was seven days after an areawide multicounty derecho. Water and wastewater utilities have a mandate to delivery service and to protect public health and this plan contradicts providing these services during and after emergency conditions. Just this one pumping station for 7 days would require over 8 MW and our treatment plant would require 168 MW of battery storage.

- 2. Water and wastewater utilities have a mandate to invest in their infrastructure as part of asset management plans. To invest in this infrastructure, it requires large heavy construction equipment, excavators, loaders, dump trucks, cranes and more to perform the construction activities. None of this equipment is electrified and a major concern is fuel prices will rise as well as construction cost as demand is reduced.
- 3. Utilities have large trucks, some with two engines, like a sewer jet/vacuum truck or pressure jet trucks for maintenance and cleaning of sewer lines, as well as dump trucks, front end loaders, back hoes, none of which have an existing electric alternative. We have tractor trailers as well as portable pumps and generators all fueled by gasoline or diesel. There is no alternative to diesel/gasoline powered portable pumps for emergency conditions.
- 4. The LSA owns and operates a farm for land application of biosolids. We have been farming for 30 years raising corn, wheat, rye and hay. There are no wide use plug-in tractors (some experimental), seeders, harvesters or other farm equipment. The removal of or diminishing access to fossil fuels will remove the "Garden" from the Garden State. Farmers buy equipment with the expected life to extend several decades and will have stranded investment in their equipment under this proposal if diesel is diminished. With less fuel demand, cost will rise placing many farmers in an economic crisis. Many farms irrigate with onsite diesel-powered well pumps at remote locations that do not have power lines in the middle of the farm field. How will the plan replace all of the tractor and farm equipment in the state and keep farming viable?
- 5. We have concerns for the traveling public and our staff on roads during winter storms. There is no heavy snow removal equipment that is electrified. Given much of the snow removal is by county and local governments, how will the 2% cap be impacted on retrofitting large fleets of trucks or increase cost from contractors removing snow?
- 6. To follow up on the above, how will the 2% cap be handled if all public bodies regulated by the cap need to adjust their budgets to retrofit the multiple municipal, County and school buildings, vehicle fleets, landscaping/park/sports fields equipment? What will be the fiscal impact upon the tax payer? Has an economic impact been done and will there need to be a cut back in services or layoffs to balance budgets? Besides the public body's vehicle fleets, what impact has been analyzed on fire protection, fire trucks and other related fire fighting equipment if fossil fuels will be eliminated?

- 7. Southern and coastal NJ has a large marine commercial and recreational fishing industry as well as competitive shark and billed fish tournaments, all powered by gasoline or diesel fuel. The commercial fishing, scallop and clamming ships go to sea for days at a time and canyon runs can be almost all day. How will electrification impact upon the jobs, tourism and economy of this sector?
- 8. Several wastewater facilities handle their own and customer treatment plants' sludge and grease/scum by incineration, an in state based viable disposal option. These incinerators are fired by natural gas and can also be fired by fuel oil. What is the plan to handle the production of sludge and grease/scum if fossil fuels are eliminated?
- 9. The Vineland area and they are as well as our customers, is the home to numerous food processors which require steam or hot water from boilers for their cooking, canning and process water as well as sanitation. How will they meet USDA and FDA sanitary requirements if they do not access to boiler supplied hot water and steam?
- 10. We have retrofitted our building with high efficiency natural gas boilers as the heat pumps could not keep the building warm in the numerous winter days where it has been sub-20 degrees. I believe homeowners and other will face the same problem and if the heating system has supplemental resistance heaters the cost will become unaffordable for seniors and those at lower income levels. An unintended consequence I believe will be the proliferation of wood burning or pellet burning stoves and the unregulated emissions from those units.
- 11. An additional consequence with statewide electric heat is that NJ will move to a year-round high demand state, rather than a summer demand. Maintenance on electric generation and transmission systems are usually done during this low demand time frame. Without the lower load period, when equipment can be deenergized to be maintained, repaired or replaced, the grid's reliability will most likely suffer.

Very Truly Yours,

Dermis W. Palmer, P.E.

Executive Director/Chief Engineer