

Comments on 2019 Draft Energy Master Plan

My name is Richard D. Grant. I am a resident of Hackensack, New Jersey.

Thank you for having allowed me to state my views at the NJ Board of Public Utilities' July 17, 2019 morning stakeholder meeting in Trenton on the state's 2019 Draft Energy Master Plan.

Here I will take the opportunity to expand on my July 17 remarks --

I note that, as a volunteer for the climate action group 350.org and administrator of a Facebook public group named *Climate Action and Clean Energy Update*, I track developments in those areas by reading more than 100 new articles and opinion pieces posted online every week in order to select 10 posts to add daily.

I was particularly concerned with absence of a moratorium on new and renovated fossil fuel infrastructure projects from a draft plan that aims for 100% clean energy by 2050.

Natural gas is not a bridge to the future; it now is no more than a bridge to nowhere:

- In terms of the amount of emissions that contribute to global warming, the best that one can truthfully state about natural gas is that it is less dirty than coal.
- While the cost of natural gas at any time depends on supply and demand, the costs of solar and of wind (onshore and offshore) as well as of energy storage have been dropping and are expected to continue to drop over the next several decades.
- While the vast majority of jobs created by the construction of natural gas infrastructure are temporary ones, the construction of renewable energy capacity can create a supply chain's worth of permanent jobs (the New Jersey Economic Development Authority has stated that more than 400 businesses joined the state's Offshore Wind Supply Chain Registry within its first 5 months).
- The claim that new and renovated natural gas infrastructure projects are needed to meeting a growing demand for energy is proven false by the draft plan's focus on the reduction of energy demand through maximizing energy efficiency and conservation, bringing down peak demand, and decreasing the building sector's energy use.

Consider what the construction of new gas-fired power plants could lead to (whether they were to include the North Bergen Liberty Generating project, the NJ TRANSITGRID TRACTION POWER SYSTEM, or any other future projects that may be encouraged to go forward by the lack of a moratorium on new and renovated fossil fuel infrastructure or by any the possible final approval of any projects already submitted for review).

The typical expected operating life for a combined-cycle gas-fired power plant is 25 to 30 years (<https://sargentlundy.com/wp-content/uploads/2017/05/Combined-Cycle-PowerPlant-LifeAssessment.pdf>).

As early as March 2015, Ernst & Young issued a report that highlighted “four areas of potential disruption that can make the fossil fuel-based energy sector assets effectively “stranded” as unprofitable, risky and in some cases obsolete....: disruptive technologies such as renewable energy storage and carbon capture and storage technology; price competitiveness and uptake of renewable energy generation; debt and project finance; and global and domestic climate change policy. (<https://www.thefifthstate.com.au/articles/ey-on-stranded-assets-get-out-while-you-can-the-analysis-is-shifting-to-longer-term/>).

The most recent “stranded asset” analysis comes from the Rocky Mountain Institute (RMI), the same energy research and consulting organization that the Board will rely on to conduct the Integrated Energy Plan (in consultation with Evolved Energy Research).

According to RMI’s *The Growing Market for Clean Energy Portfolios* report/paper released on September 9, 2019, “Even as clean energy costs continue to fall, utilities and other investors have announced plans for over \$70 billion in new gas-fired power plant construction through 2025. RMI research finds that 90% of this proposed capacity is more costly than equivalent CEPs [Clean Energy Portfolios] and, if those plants are built anyway, they would be uneconomic to continue operating in 2035, well ahead of the ends of their planned economic lifetime. Continued investments in these power plants will present stranded cost risk for customers, shareholders, and society, while locking in 100 million tons of CO₂ emissions each year.” (<https://rmi.org/insight/clean-energy-portfolios-pipelines-and-plants>)

Moody’s Investor Service, in a November 5, 2018 research announcement, stated: “While exposure to stranded assets could increase during the industry’s transition to renewables from natural gas and coal, Moody’s expects regulators will allow utilities to recover costs from customers. “Stranded cost recovery has numerous precedents in the sector, including the deregulation efforts of the late 1990s that resulted in more than \$100 billion of stranded assets,” says Toby Shea, a vice president at Moody’s and the lead author of the report. “In almost all cases, the utilities were able to recover stranded

costs without hurting their credit quality.” (https://www.moodys.com/research/Moodys-Stranded-asset-risk-is-low-for-US-regulated-utilities--PBC_1148481?showPdf=true)

Questions needing consideration include: What if one or more gas-fired power plants proposed for New Jersey were approved, constructed, and went online, and then the plants’ owners were to decide to retire them as economically unviable before their 25 to 30 year operating life ended? How much advance notice would owners be required to provide to the Board? What would be the source(s) of the energy needed to replace the missing capacity? Could the owners threaten to retire the plants unless the state agreed under a deadline set by the owners to provide a large continuing subsidiary?

Also, I would encourage the Board to implement as much of its final plan as early as possible (particularly transitioning transit and school buses to battery-powered EV fleets) to reduce the state’s demand for fossil fuels, grow its clean energy economy, maintain and grow public support for the plan’s continued implementation by showing rapid tangible results, and anticipate the possibility that voters might someday put into office those opposed to achieving your emission reduction goals.

Further, with the retirement dates for New Jersey’s remaining nuclear power plants being unknown and the amount of available open space in our state declining, I would encourage the Board to periodically monitor developments (particularly those related to costs) in these areas:

- Offshore floating wind systems in deeper waters;
- Hybrid systems that combine two or more distributed energy resources (solar energy, wind energy, and energy storage);
- Floating solar systems on bodies of water (such as the Canoe Brook Water Treatment Plant in Millburn);
- Dual-use solar systems on farmland (known as agrivoltaics)
- Solar parking lot canopies (possibly in combination with EV charging stations), and
- Vehicle-to-grid technologies for parked battery-powered cars, trucks, transit buses, and school buses.

Finally, I respectfully bring *Climate Action and Clean Energy Update* to your attention as a potential wide-ranging resource on new federal, state, and international developments for the Board and its staff (<https://www.facebook.com/groups/1083994271692891/>).

Thank you.

-Richard D. Grant, 9/16/2019 11:07 a.m.