THE PORT AUTHORITY OF NY & NJ

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Energy Master Plan Committee
New Jersey Board of Public Utilities (BPU)
44 South Clinton Avenue, 3rd Floor, Suite 314
Trenton, NJ 08625-0350

RE: New Jersey 2019 Energy Master Plan

Dear Committee Members:

The Port Authority of New York & New Jersey (Port Authority) respectfully submits the following comments for consideration in development of the New Jersey 2019 Energy Master Plan (EMP). The 2019 NJ EMP's goal is to outline the State's program in support of growing the energy economy, reducing its carbon footprint and developing and efficiently managing 100% clean energy resources by 2050.

The Port Authority builds, operates and maintains infrastructure critical to the New York/New Jersey region's trade and transportation network. These facilities include America's busiest airport system, marine terminals and ports, the PATH rail transit system, six tunnels and bridges between New York and New Jersey, the Port Authority Bus Terminal in Manhattan, and the World Trade Center. For more than eight decades, the Port Authority has worked to improve the quality of life for the more than 17 million people who live and work in New York and New Jersey - a region that supports 8.6 million jobs with an estimated gross regional product of more than $929 billion.

The Port Authority is committed to reducing energy use and dependence on fossil fuel-generated power to reduce emissions, increase efficiency, and reduce costs. The Port Authority performs energy planning to advance such goals. In addition, we are implementing a number of innovative programs to promote energy conservation and green technology, including vehicle electrification and market-based approaches to funding and advancing energy projects.

Statement of Position

Comments are presented below on the following five key policy areas identified by the NJ EMP Committee as integral to the state's economic development, sustainable energy and environmental agenda. Most importantly, as a bi-state agency, the Port Authority requests a seat on the EMP Committee. The Port Authority's Office of Environmental and Energy Programs has valuable expertise in the topics identified for consideration in the EMP. In particular, as neighboring states continue with ambitious plans for offshore wind deployments similar to New Jersey, there is a clear need for a regional approach to supply chain development for offshore wind and integrated uses of port facilities in New York Harbor, such as those maintained by the Port Authority.

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Building A Modern Grid

The EMP should work to define the modern grid as an interconnected global network of distributed energy resources (DERs), micro-grids and energy transmission and distribution (ETD) infrastructure. It should also further define distributed energy resources (DERs) to include clean energy technology, generation, energy efficiency and management strategies and categorize centralized and decentralized resources accordingly. Additionally, the EMP should rank these DERs in terms of constructability, cost, capacity, availability, environmental and reliability attributes. Energy efficiency, fuel cells, hydropower and renewable energy such as solar photovoltaic (PV) systems and off-shore wind paired with energy storage should rank highest in considering the significant impact these technologies have on reducing Greenhouse Gas (GHG) emissions. This should inform a newly developed program to significantly incentivize the investment in "behind-the-meter" and "front-of-meter" DER's over the use of conventional fossil fuel power generating sources. The incentive program should also sponsor the development of investment grade energy audits that will inform commercial and industrial customers of all feasible DER applications for their specific use cases.

A standard should be developed to integrate "smart technology" that will enable interconnection and communication between these systems and ancillary devices on the global network. This will allow operators to efficiently manage DERs and dispatch as needed to maintain overall system stability, shave peak demand, shift loads, manage black starts, achieve lowest total cost of operation, maximize renewable energy contribution, and provide demand response functionality.

The New Jersey Board of Public Utilities (BPU) should partner with PJM and the Department of Energy to explore the opportunities in Transactive Energy. Transactive Energy is a set of economic and interoperability techniques to manage the flow or exchange of energy within an electric power system in response to economic and market based standard values of energy. It is the automatic, electronic transactions between energy providers and end users to buy or sell power based on an exchange of information on the predicted price and availability of power in real-time. Collaboration should be focused on addressing feasibility challenges, market barriers and investment constraints through regional and community based demonstration projects.

Sustainable & Resilient Infrastructure

The EMP should support the hardening of existing centralized generating assets and associated transmission and distribution systems. Additionally, it should incentivize the use of smart technology and flexible architecture to facilitate the integration of distributed energy resources such as micro-grids, "smart" consuming end-use devices such as electric vehicles and energy storage (which could be considered both a generator and consumer of energy).

Clean & Renewable Power

The new solar energy programs and policies being developed by the BPU, including the Community Solar Program, the new Solar Renewable Energy Certificate (SREC) program, and policies regarding remote net metering and on-site "behind-the-meter" solar energy generation should not be restrictive on size, in order to maximize the generation of clean, renewable energy. For example, while certain size limits have already been established by legislation (e.g. 5 MW capacity limit on community solar projects), generators should be permitted to also take advantage of remote net metering and/or behind-the-meter energy usage in order to maximize the efficiency of solar PV installations.

Modifications to the SREC program must provide enough market certainty to continue project development particularly as Offshore Wind Renewable Energy Certificates (ORECs) come online and federal tax incentives diminish.

In order to advance renewable energy projects, the EMP must guide the creation of a new incentive program to reduce the first high costs, direct and indirect, to construct DERs such as utility scale carport/canopy mounted solar PV and offshore wind. Additionally, the EMP should encourage the unique opportunities the state has in the area of offshore wind development and work to enable the proposed PJM offshore wind transmission system. The BPU should partner with PJM and leverage federal programs and private-public partnerships to develop investment grade audits and implement demonstration projects, giving priority to customers with critical infrastructure such as airports and major transportation hubs.

Reducing Energy Consumption

Energy efficiency projects are one of the lowest cost investment strategies that realize energy savings which translate to significant reductions in emissions of GHGs. The EMP should work to further define energy management strategies and energy efficiency technologies as part of the distributed energy resource portfolio. A standard should be developed to integrate energy use analytics and management software, advance metering and energy consuming equipment and devices on a local interconnected sub-network as part of a broader DER global network as detailed in the "Building a Modern Grid" section. Additionally, an incentive program should prioritize investment in such enhanced monitoring and operability capabilities through the use of energy software analytics and sensors on energy consuming equipment and systems, demand response, re/retro-commissioning of existing facility/building electrical and HVAC systems and continued advancements in energy efficiency technology and applications such as combined heat and power. The EMP should consider continued collaboration with PJM and leveraging of federal programs as well as the funds raised through the Societal Benefits Charge (SBC). The funds raised by the SBC must be protected from being directed to other state expenses such as the general fund.

Clean & Reliable Transportation

The market for electric vehicles and transportation shuttles is growing and will add significant load and demand to the electric grid and corresponding infrastructure. The EMP should encourage the collaboration between end users, hosts and energy providers to develop a strategic approach to accommodate this increased electric demand and infrastructure upgrades. The EMP should encourage incentives through time-of-use tariffs to integrate distributed generating assets paired with energy storage to reduce peak demand and energy efficiency to off-set consumption.

Significant emissions originate from the freight sector. This encompasses aircraft movements, ocean-going vessels, heavy-duty trucks calling on ports and airports, and associated specialized ground-support and cargo-handling equipment. While this sector also needs to decarbonize rapidly, readily available electric alternatives do not exist yet. For this industry, decarbonizing liquid fuels is a necessary intermediate step. To that end, the EMP should consider how incentives and/or regulations can encourage the production, sale and use of low carbon fuels, including biofuel, biodiesel, renewable diesel, and sustainable aviation fuels.

A good example of state/regional regulatory incentives to drive investment in lower carbon-intensive fuels is California's Low Carbon Fuels Standard (LCFS), implemented in 2011. A LCFS program like California's could be designed with the flexibility to avoid or minimize impacts on retail gasoline prices. The standard is implemented using a market-based approach that rewards fuel producers for reducing carbon pollution with reduction credits that have a financial value within the program. Refiners and importers of gasoline and diesel must demonstrate annually they have met reduction targets either through reducing their emissions directly or purchasing credits from low-carbon fuel producers. The program has resulted in 33 million tons of CO_2 avoided through 2017. Recognizing the need to reduce GHG emissions from aircraft operations, California is expanding the LCFS program to include incentives for the production of sustainable bio-based aviation fuel.

The Port Authority appreciates the opportunity to comment on the draft NJ EMP. We would welcome the opportunity to further discuss our comments. Please contact Tennille Santos at tesantos@panynj.gov or (212) 435-5464 with any questions or to schedule a meeting.

Sincerely,

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