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VIA ELECTRONIC DELIVERY & OVERNIGHT MAIL

Ms. Cynthia Holland, Director
Office of Federal and Regional Policy
New Jersey Board of Public Utilities
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Testimony of
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New Jersey Draft Energy Master Plan
Sustainable and Resilient Infrastructure
September 28, 2018

Good morning. I am Joe Accardo, Deputy General Counsel for PSEG Services Corporation. Thank you for the opportunity to provide initial thoughts with respect to EMP goals around Sustainable and Resilient Infrastructure.

PSEG has a long history of partnership with the State, aligning its interests with those of New Jersey. Significantly, and with respect to sustainable and resilient infrastructure, this partnership has been critical. As prior EMPs have found, the generation and delivery of reliable and safe energy is a key element of a healthy economy. When the utility industry's substantial financial contributions to the state's economy are coupled with the companies' critical mission of managing and maintaining utility infrastructure, it becomes readily apparent why stable and viable utility companies are critical for the existence of all businesses and residents in New Jersey.

PSEG looks forward to continuing and building upon the work of prior EMPs that has ensured that New Jersey remains properly focused on infrastructure investment to ensure energy resiliency, emergency preparedness, and response both today and tomorrow. Infrastructure investments that enhance the reliability and resiliency of the electric and gas systems have benefitted all customers and create jobs. In our service territory alone, we are seeing evidence of the value and importance of infrastructure resiliency in promoting tremendous urban renewal and development from Camden to Newark to Jersey City just to name a few.

PSEG supports the state's goals of making energy accessible, reliable, and affordable; maintaining a balanced portfolio of clean generation resources, delivering the economic and environmental benefits of energy efficiency; and supporting new energy technologies and renewable energy investments. The backbone to all of those goals and objectives is a sustainable and resilient infrastructure. PSE&G is already immersed in the task of addressing the need for a more resilient electric and gas network through its Energy Strong and Gas System Modernization Programs as well as its transmission replacement program. In many areas of our service territory, our assets have successfully withstood the test of time and lasted nearly a century.

However, resiliency has become a more significant issue over time. We now must navigate dramatic weather shifts from temperatures of 50/60 degrees to near-zero in less than a day, bomb cyclones, ice storms, heightened national security concerns, and a greater customer appreciation and desire for enabling and relying upon renewable energy. All of these imperatives require that resiliency of utility systems is a top priority when crafting long-range planning as well as EMPs.

According to the U.S. Department of Energy, between 2003 and 2012, weather events caused nearly 680 power outages, each affecting at least 50,000 customers. With more than one hundred and fifty-four million electric utility customers in the United States, severe weather events are a concern for every utility company that services them. To illustrate the scope of the problem on the ground here in New Jersey, Superstorm Sandy downed 9,441 utility poles, left more than 100 transmission lines out of service, and damaged or flooded more than 4,000 transformers statewide, leaving 2.8 million electric customers without power after the peak of the storm.

The lessons learned include that in today's digital age, customers require and demand reliable power. Ultimately, our goal has to be ensuring the lights work, and that there is heat in the winter, air conditioning in the summer, and the proper flow of water and sewer systems.

Meeting this goal not only benefits all of the citizens of New Jersey, but it has provided thousands of jobs to bolster the state's economy.

On the natural gas side, the first phase of PSE&G's Energy Strong program hardened five Metering and Regulating stations and two peak shaving plants against storm surge and flooding and 240 miles of gas mains and over 21,000 services against water infiltration. The second phase of Energy Strong, in addition to continuing to harden our metering and regulation stations, proposes projects that will improve the resiliency of the gas distribution system against supply curtailments by the interstate pipelines. These resiliency improvements are designed to reduce the potential interruption of service to PSE&G's firm customers particularly in the winter heating season when a loss of gas supply would be most detrimental.

PSE&G is also pursuing efforts to proactively modernize its gas systems to promote a safe, clean and reliable natural gas system well into the future. Cast iron and unprotected steel gas pipes represent less than 25 percent of PSE&G's infrastructure, but they account for more than 65 percent of distribution system's methane gas leaks each year. The Company's Gas System Modernization Program (GSMP) addresses this issue head on. During the course of the first phase of GSMP, the Company is making improvements to older infrastructure that serve to reduce greenhouse gas emissions by an equivalent of 23,500 tons of CO₂ a year. As PSE&G moves into the second phase of this program, our objective remains to provide our customers and the communities we serve with the continuing environmental benefits—to the magnitude of a 31,000 ton per year reduction in greenhouse gas emissions.

On the electric side, when the first phase of PSE&G's Energy Strong program is completed later this year, 490,000 of PSE&G's 2 million customers who lost power during Superstorm Sandy won't lose power again due to flooding. By way of example, the program built a new, elevated station that did not flood during severe rains on May 27, 2018, while the old neighboring station flooded at its lower elevation. In addition to continuing its efforts to raise critical electric equipment in flood prone areas, by phase two of the Energy Strong program, the Company proposes to modernize aging electric stations, install stronger poles and wires to reduce wind and tree damage, install circuit reclosers and redundancies, and deploy advanced technology to quicken restoration.

Our experience demonstrates that it is possible to power the economy, provide good jobs for people, deliver reliable and resilient energy, and protect the environment at the same time. Yet we recognize there is much more to do. Our customers depend on our energy more than ever at a time of unprecedented, and intensifying changes in technology and the climate, and we understand and appreciate that the status quo is not an option.

We also understand that while we continue to work toward improving and modernizing our delivery system, we must also be mindful of the need to improve and harden the transmission system. In fact, just last month the U.S. Energy Department's National Renewable Energy Laboratory, (NREL), presented a new seam study finding considerable economic and engineering value in fortifying these connections to better distribute power resources around the country. The study highlighted the relationship between transmission resiliency and meeting renewable energy goals. PSEG looks forward to continuing to discuss these issues as the electric transmission and distribution systems become more critical to enabling New Jersey's renewable goals to be met.

Somewhat related, we understand that microgrid investments and energy storage, in certain applications, may play a complimentary role to protect certain critical facilities. That said, investments that make our existing electric and gas transmission and distribution systems more resilient have and should remain the priority, as they benefit the greatest number of residents in the most cost-effective manner.

Cynthia Holland, Director
Senior Policy Advisor

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Thank you for the opportunity to appear today and to provide these comments.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Joseph F. Accardo Jr.", written in a cursive style.

Joseph F. Accardo Jr., Esq.