

September 16, 2019

New Jersey Board of Public Utility Office of Clean Energy 44 South Clinton Avenue PO Box 350 Trenton, New Jersey 08625

VIA EMAIL: emp.comments@bpu.nj.gov

RE: Draft Energy Master Plan- Strategy 7 Comments

To Whom it May Concern:

I am writing on behalf of Hugo Neu Corporation, owner and operator of Kearny Point in South Kearny, N.J. Hugo Neu, was founded in 1947 and grew to become a recognized global leader in recycling. Today the company advances its mission by investing in environmental, real estate and non-profit enterprises that support economic, social and environmental justice and sustainability. Hugo Neu is a private independent company that is using its unique capital strength to execute its long-term vision for the commercial and ecological rebirth of Kearny Point.

Kearny Point is a former contaminated federal shipyard immediately adjacent to Newark and Jersey City that is undergoing a \$1 billion remediation and redevelopment. Kearny Point is a national model for sustainable, resilient and equitable redevelopment of de-industrialized urban waterfront districts. Kearny Point's initial building, "Building 78", has emerged as a leading incubator for small and mid-sized businesses, serving over 250 businesses, including dozens of companies that are working to solve some of the most pressing environmental and resiliency challenges.

On September 10, 2019, in conjunction with the New Jersey Sustainable Business Council and Ciel Power LLC, Kearny Point convened a forum entitled "New Jersey's Energy Master Plan: An Interactive Discussion on Incubating the Clean Energy Economy." The purpose of the forum was to generate comments and insights from industry professionals, cleantech startups and entrepreneurs, advocates and economic development officials on "Strategy 7: Expand the Clean Energy Economy." Kearny Point volunteered to collect, collate and synthesize comments from the forum and submit them to BPU as part of the public comment process. More than 50 people attended the event, representing a cross section of the solar, startup, electric vehicle, weatherization, utility and venture capital industries.

The following notes reflect the comments and recommendations collected from forum panelists and participants. These notes reflect a good faith attempt to capture the major

comments and takeaways from the forum but, of course, do not include all the comments nor a "consensus" from participants. Rather, these notes are intended to provide BPU and other state policymakers with the highlighted comments from select industry perspectives.

Finance

- New York State's Clean Energy Fund (CEF) is a 10-year \$5 billion plan to invest in programs, systems, innovations and technologies to advance the clean energy transition and to lever economic development for New York residents and companies. New Jersey should learn from and build on CEF successes and supplement strategies that have been most effective.
- Private investment is most effectively facilitated by predictable public policies and regulatory structures; public subsidies and incentives must be quick, simple and transparent, otherwise they will lack long-term productivity and effectiveness.
- Legislative authorization of a Property Assessed Clean Energy Program (PACE) in New Jersey
 will decrease the cost of capital for renewable energy installations, micro-grids and energy
 efficiency improvements, thereby accelerating the adoption of more sustainable energy
 systems.
- Green bonds present an opportunity to leverage private capital to advance large scale renewable energy projects; penetration of these types of financial tools at the local level is a challenge, however, and resources are required to make them more accessible and costeffective to local and county governments across the state with varying levels of financial sophistication.

Workforce

- The largescale economic transition will present a unique opportunity to open avenues of employment to previously excluded communities. Systematic outreach, training and engagement will be required to ensure broad and equitable distribution of positive economic impact.
- Home energy audits should be fully subsidized (like in New York State,) and, in order to meet the subsequent increased demand for skilled technicians, building analyst certifications should be more widely available.
- Alternative energy construction and maintenance (i.e. wind, solar) present some of the greatest employment opportunities in the short- to medium-term; wave technology could present similar opportunities.
- Given the complexity of off-shore wind tech and operations, developing a workforce-needs
 assessment is an essential part of creating a new offshore wind industry in the United
 States. Labor leaders from the carpenters, electricians, building trades, steelworkers,
 ironworkers and other groups are engaged but much more work needs to be done.
- Vocational schools and community colleges should be tightly connected to state sponsored R&D and early stage companies that provide apprenticeship and employment opportunities.
- Growth Sectors for Employment: Electrical engineering/energy efficient HVAC, smart meters, smart buildings; solar installers; energy auditors, air sealing and insulation; drone

design and operators. New skills related to green financing and economic financial analysis also will be required.

• Facility managers, artificial intelligence, machine learning, data science, and business intelligence are all expected growth sectors in the future of clean energy.

Startup Ecosystem

- New York and Massachusetts can serve as models for states supporting the creation and development of a cleantech startup ecosystem. Both have several high-quality, publicly funded private incubators that combine mission-driven focus with the ability to act nimbly and the capacity to support the right technologies and the right founders.
- Proximity to the New York City capital, labor, innovation and technology markets is important for startups in this sector. New Jersey needs a centrally located space for cleantech industrial innovation—outside of established university research facilities. A private operator, collaborating with public and higher ed partners, has the best overall attribute base for successfully incubating, growing and retaining cleantech businesses.
- Business competitions and early stage grants cost very little and are impactful in seeding innovation.
- The recently expanded Angel Investor Tax Credit Program is a helpful program to support
 early stage startups and New Jersey Governor Phil Murphy's proposed Evergreen Fund will
 similarly increase venture capital available for startups. The long lead times associated with
 clean energy innovation, however, may result in other tech sectors faring better in
 competition for this subsidized capital. A carve-out for cleantech ventures may be needed.
- Programmatic and financial support for early stage, pre-revenue startups is critical (and currently doesn't exist in New Jersey.) These are high-risk, low-cost ventures, but the bet is some of these will emerge as innovative growth companies that emerge as large employers of the future.
- The Small Business Innovation Research grant program is a great resource for early-stage startups and widely available, targeted training and support for SBIR applications can be instrumental to applicant success.
- Transportation and building transformation are early sectors for change. Invest in material science and environmental science will increase likelihood of technological innovation.
- Enlist students both at the graduate and undergraduate level for sustainability projects and sustainable business startups. This is how the energy transition will be sustained.

Wind, Solar and EV Sector

- Supply chain clusters are huge for the off-shore wind industry: The industry is trying to establish manufacturing, assembly and installation operations along the entire East Coast, with planning and investment into port areas acting as operational hubs.
- The New Jersey WIND Institute being formed this fall can play a major role as a clearinghouse for offshore wind training programs.

- Collaboration: The formation of a "clean energy coalition" to accelerate the dissemination and adoption of successful ideas, techniques, products and technologies.
- Synergies with renewables and electrification of transportation (and eventually space heating) need to be exploited. Laws and regulatory structures must change in order to accommodate this.
- State government alone cannot accomplish a rapid, multidisciplinary transition. To produce timely results, New Jersey needs an initiative that facilitates real public/private collaboration in a focused, disciplined manner.
- Photovoltaic (PV) technology was born in New Jersey, matured in New Jersey, and was first commercialized in New Jersey. Dramatic advancements are still possible here. A PV National Center of Excellence should be established in the state.
- Ready the power grid for massive amounts of solar and wind energy batteries are only
 part of the answer. We need to find the lowest-cost combination of solutions.
- Electric vehicle (EV) batteries are doing double duty. Vehicle-to-grid (V2G) technology could unleash a vast amount of battery capacity to stabilize the clean energy grid. Let's start building it right away.
- Recognizing that the transportation sector is the leading source of greenhouse gas
 emissions in New Jersey, consider opportunities to couple the Clean and Reliable
 Transportation focus with investments and market-drivers for research, incubation,
 application and demonstration of emerging wind, solar and EV technologies as carbon
 offsets, credits and other incentives to reduce the state's carbon footprint per the Clean and
 Reliable Transportation focus of the EMP.

Thank you for your consideration of the comments to these Draft Energy Master Plan. I would be happy to provide clarification or answer any questions that you may have and can be reached at (862) 220-1759 or mmeyer@hugone.com.

Regards,

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Director of Development

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