October 17, 2017

VIA ELECTRONIC MAIL

Hon. Kathleen Burgess
Secretary to the Commission
New York State Public Service Commission
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350
Email: secretary@dps.ny.gov

RE: Matter No. 14-01299 - PSEG-LI Utility 2.0 Long Range Plan

Comments of Sierra Club, Natural Resources Defense Council, All Our Energy, Citizens Campaign for the Environment, and Renewable Energy Long Island

Dear Secretary Burgess:


I. Introduction

The Clean Energy Advocates applaud PSEG-LI’s continued commitment to New York’s 2030 goals of 40 percent greenhouse gas (“GHG”) emissions reductions and 50% renewable electricity generation under the Clean Energy Standard. In particular, we appreciate PSEG-LI’s focus on GHG reductions to Long Island’s energy and transportation sector in the Updated Plan. While we are grateful for PSEG-LI’s efforts in transforming Long Island’s
electric industry and furthering New York’s clean energy goals, we urge PSEG-LI to strengthen its efforts in the following key areas: (1) rapidly increasing Long Island’s offshore wind portfolio; (2) implementing energy efficiency measures in addition to effective demand-side management strategies; (3) expanding Long Island’s electric vehicle charging infrastructure; (4) improving TOU rates to complement smart-meter deployment plans and maximize customer savings; and (5) promoting energy storage and distributed generation.

II. Comments

1. PSEG-LI should continue to develop Long Island’s offshore wind portfolio to provide enormous public health and economic benefits to Long Island and help achieve Governor Cuomo’s 2.4 GW by 2030 offshore wind commitment

Governor Cuomo’s commitment to 2.4 GW of offshore wind (“OSW”) by 2030 and LIPA’s development of a 90 MW OSW farm with Deepwater Wind as part of its South Fork Project represent significant steps forward in New York’s clean energy development. We encourage PSEG-LI to build on this momentum by expanding Long Island’s OSW portfolio in future RFPs to meet Long Island’s current and future capacity needs.

As stated in the Update, PSEG-LI expects that “most new energy resources on Long Island will be in the form of energy efficiency, renewables, demand response, and storage.”¹ OSW forms a critical component of this revolution. As Governor Cuomo identified in his 2017 regional State of the State address on Long Island, developing OSW is indispensable to achieving the State’s 50 percent renewables by 2030 goal.² This, combined with the announced

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² Richard Kauffman, Chairman of Energy and Finance for New York, also stated recently that “[w]e are not going to achieve our 50 percent goals by 2030 without offshore wind.” Offshore Wind Key to New York Meeting Renewable Energy Targets, Bloomberg (Apr. 5, 2016),
retirement of Indian Point and pre-existing identified capacity needs in NYISO Zones J and K by 2024, creates an urgent need to rapidly develop Long Island’s OSW potential.

OSW development would fulfill PSEG-LI’s goal of “[l]ocalized renewable energy injection to where the power is needed,” and greatly reduce Long Island’s reliance on fossil-fuel plants that are a leading source of dangerous pollutants in New York. These pollutants aggravate respiratory and heart diseases, leading to increased hospitalizations and premature death. They cause asthma, which is especially prevalent in New York, and alone costs the State $1.3 billion annually in health care costs and lost workforce productivity. Harmful emissions from fossil fuel plants also disproportionately harm the most vulnerable members of society, including children, the elderly, and low-income families. As PSEG-LI emphasized in its LSR Options Paper comments, “[i]f local fossil production is not displaced, local Long Island communities will not benefit from reduced pollution from these plants.”

Beyond these public health benefits, developing Long Island’s OSW portfolio would create thousands of jobs and provide billions of dollars in economic investment for Long Island. Studies commissioned by NYPA have shown that a single OSW project could generate total economic activity of $1 billion in sales, 8,700 job-years and $610 million in wages for New York.


3 2017 Update at 12.


6 PSEG-LI LSR Comments, 4.
Similarly, a 2014 study by Stony Brook University looking at Long Island’s OSW potential found that if the “Long Island offshore wind industry can achieve a scale of supporting 2,500 MW, more than 58 thousand [full-time] jobs and approximately $12.9 billion in local economic output can be expected.”

Along with the benefits from construction and operation, an early commitment to a pipeline of OSW projects would help establish Long Island as the regional hub for OSW development. This would attract a host of supply chain companies, creating jobs for manufacturing turbines, foundations, blades, sub-stations, and cables. Establishing Long Island as the regional hub for OSW development would lead to considerable gains in research and development, such as building larger and stronger turbines that would further reduce GHG emissions reductions and project costs. These ancillary benefits would significantly magnify the direct benefits from the OSW projects themselves, adding to the cost-effectiveness of Long Island’s OSW development.

To achieve these benefits, PSEG-LI should work with the New York Public Service Commission and NYSERDA in finalizing New York’s Offshore Wind Master Plan by the end of the year, and work with NYSERDA and LIPA to begin offshore wind power procurement solicitations in 2018 to jumpstart New York’s OSW portfolio. These immediate actions are essential to achieve Governor Cuomo’s 2.4 GW by 2030 commitment, especially given that there is generally at least a three-year gap between the contracting period and commercial operation.

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for an OSW project. Developing Long Island’s OSW projects as quickly as possible will reduce OSW costs, allow OSW to displace outdated fossil fuel plants, and provide enormous public health and economic benefits to Long Island.

2. **PSEG-LI should increase energy efficiency measures in addition to developing and implementing effective demand-side management strategies**

   Alongside its considerable investments in renewable energy, PSEG-LI should make corresponding investments in energy efficiency and demand-side management strategies. To help achieve the State’s 50 percent by 2030 renewable Clean Energy Standard goal, PSEG-LI should pursue a 2 percent annual energy savings target. To meet this target, we encourage PSEG-LI to build on the LIPA’s foundation in energy efficiency through holistic energy efficiency investments and demand response programs. For instance, we support the progress made by initiatives like the Direct Load Control Program in helping customers reduce energy demand. We recommend that these programs be coupled with an increased portfolio of energy efficiency measures that ramps up every year, similar to plans implemented by leading utilities such as National Grid Massachusetts, which now achieve roughly 3 percent annual incremental savings. PSEG-LI should also engage in efforts to increase demand for energy efficiency, such as protocols to provide building owners with sufficient access to aggregated whole building energy usage data. These initiatives and investments would dramatically reduce Long Island’s peak and overall energy demand, saving PSEG-LI customers millions in unnecessary costs.

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10 States such as Massachusetts and Rhode Island are already achieving annual energy savings of more than 2%.
3. PSEG-LI should expand on its electric vehicle charging station investments to further electric vehicle adoption and reduce GHG emissions

PSEG-LI has acknowledged that increased electric vehicle (“EV”) adoption “can help to improve the environment and improve system efficiency if we have the infrastructure, pricing, and capability in place to help guide customer choices before such technologies become a significant portion of load.” PSEG-LI and New York’s other utilities are uniquely positioned to facilitate EV development, as they can capture the system-wide benefit of EV charging that takes advantage of spare capacity in the grid, providing significant new revenue at little marginal cost. In turn, the growing customer investment in EVs with large, advanced batteries can also be leveraged to bring more variable clean energy resources like wind and solar onto the system.

To this end, the Clean Energy Advocates support PSEG-LI’s proposed EV infrastructure investments, including its fleet procurement program, workplace charging rebate and $10,000 rebate off the purchase of a Nissan Leaf. While these initiatives represent a promising start in advancing Long Island’s EV market, they should be expanded significantly to meet the State’s clean energy and EV goals and realize the economic and environmental benefits associated with EV development. While PSEG-LI proposed an initial annual investment of $1.25 million in EV workplace charging stations and PSEG-LI fleet procurement, with a goal of installing 100 new charging stations by 2019, utilities elsewhere are proposing significantly larger portfolios as a percentage of load served. For example, National Grid in New York has proposed a $23.1 million Electric Transportation Initiative to triple the amount of Level 2 and DC Fast Charging stations in its service area in its current rate case, 17-E-0238.

12 2017 Update at 6.
13 Testimony and Exhibits of Shared Services Panel, Electric Customer Panel, Gas Customer Panel Book 7 at 29-30. Similarly, Eversource is proposing a deployment of 4,100 Level 2 stations and 66 DC Fast Charging stations in its proposal in docket 17-05 before the Department
In the National Research Council of the National Academies of Sciences report entitled, “Overcoming Barriers to the Deployment of Plug-in Electric Vehicles,” lack of strategically deployed charging infrastructure is identified as a significant barrier to EV ownership.\textsuperscript{14} Market research conducted by Nissan suggests that availability of sufficient charging infrastructure is significantly related to customers’ appetite for purchasing EVs.\textsuperscript{15} Whereas only 36 percent of EV owners were likely to very likely to repurchase at existing levels of EV infrastructure, approximately 80 percent were likely or very likely to repurchase at ideal levels of charging infrastructure.\textsuperscript{16} In addition, Nissan saw an increase in Leaf sales in 2013 when Nissan installed DC Fast Charging stations in select markets.\textsuperscript{17} Tesla has witnessed similar results with its Supercharger network of DC Fast Charging stations. Tesla officials report that their DC Fast Charging network has been critical to growing sales of its Model S sedan.\textsuperscript{18}

The National Renewable Energy Laboratory (NREL) has developed a tool—the EV Infrastructure Projection (EVI-Pro) tool—that can assist utilities in planning for EV charging infrastructure buildout. EVI-Pro takes as inputs numbers of vehicles with different capabilities (e.g., plug-in hybrid electric vehicle with 40-mile electric range, or battery electric vehicle with 200-mile range) and then uses actual travel profiles to output the number and types of chargers.

\textsuperscript{14} National Research Council of the National Academies of Sciences, Overcoming Barriers to the Deployment of Plug-in Electric Vehicles, the National Academies Press, 2015, p. 6
\textsuperscript{15} David Peterson, “1700 Fast Chargers by 2016” presentation to the California PEV Collaborative, Nissan North America (Mar. 10, 2015).
\textsuperscript{16} Id.
\textsuperscript{17} Rovito, M., “Will Nissan’s No Charge to Charge Program Drive Leaf Sales?” Charged Electric Vehicles Magazine, July 3, 2014.
needed and, depending on the specificity of the travel profile data, can also output where those stations should be located. To complement and enhance its ongoing EV study with Gabel and Associates, PSEG-LI should also work with NREL, using the EVI-Pro tool to help identify levels of EV charging infrastructure that will be required to support both anticipated and desired levels of EV penetration.

Once the Gabel and Associates EV study is completed, we urge PSEG-LI to convene interested stakeholders to use that study to develop a proposal with significant investment to meaningfully advance EV charging infrastructure on Long Island. Beyond workplaces, PSEG-LI should also target multi-family dwellings and public Direct Current Fast Charging ("DCFC") locations to ensure that investments are targeted at locations that are underserved by the private sector where vehicles are parked with sufficient dwell times to obtain a usable charge. PSEG-LI’s proposal should also be required to include investments in charging infrastructure in low-income areas and environmental justice communities to promote access to clean, electric transportation and achieve localized air quality benefits. PSEG-LI should also consider charging infrastructure investments that support the electrification of medium- and heavy-duty fleet vehicles, such as buses and trucks, to alleviate local air pollution concerns in these communities.

4. **PSEG-LI should offer an EV-only TOU rate and expand off-peak charging times and pricing differentials to ensure maximum customer savings while reducing grid impacts**

In order to ensure that EV charging allows more efficient utilization of existing grid assets and lowers the cost of delivering electricity to all utility customers, improvements to PSEG-LI’s TOU rates are necessary to maximize customer participation and savings. Regarding the Update’s focus on revising TOU rates under the Smart Metering Full Deployment Program, the Clean Energy Advocates believe that the use of an EV-only TOU rate should be considered
in addition to the PSEG-LI’s current whole-house TOU rate. EV TOU rates may be preferable for certain customers over whole-house TOU rates since the former would require customers to only switch their EV charging to off-peak hours, rather than their entire electricity use.\(^{19}\) Further, a whole-house TOU rate should be designed to be revenue-neutral for most customers when compared to the standard rate, but result in a lower bill for the EV driver who charges during off-peak hours but does not shift any non-EV load.

The Clean Energy Advocates also recommend specific improvements to both the timing and pricing of the PSEG-LI’s TOU rate structure, including shortening the on-peak period to 3-5 hours and adopting a super-off-peak period to further encourage low-demand charging and maximize customer and utility savings.\(^{20}\) Utilities in many other states use at least a 3:1 on-peak to off-peak pricing ratio, and PSEG-LI should consider similar pricing schemes. Additionally, to encourage smart charging habits and reduce customer anxiety, we encourage PSEG-LI to utilize marketing and education tools\(^{21}\) to encourage smart charging customer habits and offer a first-year price guarantee for TOU rates, where a customer would receive a bill credit if, after the first year, the TOU rate resulted in higher electric charges than the standard rate. We encourage PSEG-LI to implement pilot programs to test the efficacy of a variety of TOU options, including timing/pricing options for both EV TOU rates and whole-house TOU rates. To ease access to EV-only rates, PSEG-LI should also consider a range of metering options, including both


\(^{20}\) See Letter in Lieu of Brief of Acadia Center, 3, Initial Brief of ChargePoint, 5.

\(^{21}\) Lessons learned from leaders in TOU rate design such as the Sacramento Municipal Utility District (“SMUD”) can help guide PSEG-LI’s customer education efforts. SMUD was able to shift up to 10% of its peak load as well as maintain a retention rate for customers defaulted into the program of about 90%. This successful retention rate was due in part to a multi-faceted media campaign and ongoing outreach efforts that allowed SMUD to achieve 107-120% of their enrollment goals.
installing a separate meter as well as smart charger options to avoid separate metering costs.\textsuperscript{22} Sub-metering could also allow for more dynamic rates to be separately targeted to smart loads.\textsuperscript{23}

Further, consistent with the plans announced by the Joint Utilities in their Supplemental Distributed System Implementation Plan,\textsuperscript{24} PSEG-LI’s EV rate design and infrastructure deployment will only be successful when paired with significant planning and education/marketing efforts about the benefits of EV ownership. While the Updated Plan’s initiative to develop educational and marketing material is a good start, PSEG-LI should also:

(i) work with other New York utilities to establish a methodology for tracking and sharing data regarding EV deployment;

(ii) identify market segments to prioritize for infrastructure and outreach programs, consistent with the need to fill gaps left by the private market and better shape EV behaviors so as to best integrate with electricity system needs; and

(iii) improve planning tools and load forecasting to better account for anticipated EV adoption in light of New York state’s significant, yet achievable, commitments under the Zero-Emission Vehicles Action Plan, which sets a goal that equates to an estimated 800,000 zero emissions vehicles on the road in New York by 2025.

(iv) Work with third-party organizations to help communicate the benefits of smart metering and TOU rates to increase customer receptiveness and prevent unwarranted opposition, reducing voluntary opt-outs and increasing the Plan’s effectiveness.

5. **PSEG-LI should facilitate increased deployment of distributed generation and energy storage**

\textsuperscript{22} Matt King, Residential Rate Reform: Optimizing the Move to Default Time-of-Use, p. 17, Natural Resources Defense Council (Sep. 2017)

\textsuperscript{23} Id.

\textsuperscript{24} Case 16-M-0411, Supplemental Distributed System Implementation Plan at 111-118 (Nov. 1, 2016).
We commend LIPA’s support for REV and continued integration of distributed resources through efforts like the South Fork Project. To that end, we encourage PSEG-LI to make the interconnection process easier for developers of distributed energy resources by appointing a Distributed Generation Ombudsman, as was done successfully several years ago by Con Edison. Con Edison’s Ombudsman proved to be an extremely useful point of contact for coordinating various parts of the utility and ensuring that developers of DG and energy storage can proceed with projects as efficiently as possible. We believe that creating a similar position at PSEG-LI would significantly improve communications with stakeholders, and would represent a big step forward for distributed generation on Long Island.

Furthermore, PSEG-LI should expand its behind-the-meter programs to further investment in clean energy resources. Long Island customers currently do not have access to a full range of behind-the-meter solutions, and the system continues to rely on backup diesel generators. PSEG-LI should build upon its small-combustion CHP program, either by creating a new program for fuel cells, or alternatively, allow fuel cells and other cleaner technologies to participate in the existing CHP program.

Finally, PSEG-LI can increase customer adoption of energy storage technology by allowing interconnections between solar and energy storage technologies such as fuel cells, as is permitted by other utilities in the country such as PG&E. As outlined in the PG&E tariff, the utility measures the output of both the fuel cell and PV generator independently and applies the appropriate NEM rate to each.

III. Conclusion

25 2017 Update at 43.
The Clean Energy Advocates appreciate this opportunity to comment on the Updated Plan. We encourage PSEG-LI to incorporate these comments into the implementation of the initiatives outlined in the Integrated Resource Plan and Utility 2.0 documents. We look forward to continuing to work with staff at PSEG-LI, LIPA, and the Governor’s office, as well as other stakeholders, on further developments in order to ensure that the Plan maximizes GHG reductions in both Long Island’s electric and transportation sector and addresses Long Island’s energy needs through targeted investments in renewable energy and energy efficiency, providing enormous public health and economic benefits while also establishing Long Island as a national leader on clean energy.

Respectfully submitted,

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