August 29, 2014

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
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RE: Matter No. 14-01299; In the Matter of PSEG-LI Utility 2.0 Long Range Plan-Comments of Sierra Club, the Natural Resources Defense Council, Environmental Advocates of New York, Renewable Energy Long Island, the Pace Energy and Climate Center, National Wildlife Federation, the Alliance for Clean Energy New York, and Citizens Campaign for the Environment

Dear Secretary Burgess:

The Sierra Club, the Natural Resources Defense Council, Environmental Advocates of New York, Renewable Energy Long Island, the Pace Energy and Climate Center, National Wildlife Federation, the Alliance for Clean Energy New York, and Citizens Campaign for the Environment ("Joint Commenters"), respectfully submit the following comments regarding the PSEG-Long Island Utility 2.0 Long Range Plan ("Plan") filed by PSEG-Long Island ("PSEG-LI") on July 1, 2014. Taken as a whole, the Plan's $200 million portfolio of new, incremental funding for energy efficiency, grid enhancements, and clean distributed generation projects is a good first step, and is directionally consistent with the objectives of the ongoing statewide Reforming the Energy Vision ("REV") proceeding and with the State's greenhouse gas goals. However, the Plan should further expedite the transition to a 21st century utility, one that includes a long-term vision for reducing Long Island's persistent overreliance on fossil-fuel generation by accelerating the deployment of renewable energy and energy efficiency programs.

I. Introduction

Given current and projected energy and capacity needs, Long Island is well positioned to move toward a 21st century clean energy future. Investment in distributed solar, energy efficiency, energy storage, and utility-scale renewables will further the State's carbon reduction and renewable energy goals, reduce Long Island's wholesale capacity needs and consumer costs, and will provide enormous economic and environmental benefits to Long Island communities recently affected by Hurricane Irene and Superstorm Sandy.

By contrast, further dependence on fossil fuels will lock consumers into rising and volatile energy prices and expose Long Islanders to additional harmful air pollution. Fossil-fuel power plants emit significant levels of soot and smog pollution, both known to trigger respiratory diseases and cause premature deaths. Asthma is especially prevalent in New York, and according to the New York State Comptroller, the state's asthma-related Medicaid expenditures rose more than 26-percent in the last five years adding up to $1.3 billion in healthcare costs and lost workforce productivity.[1]

Given Long Island's unique vulnerability to climate change, PSEG-LI should build on the many positive aspects of its Plan, and take this opportunity to go further as a national leader in the transition to clean energy. Indeed, while ensuring the prudent investments are targeted towards programs deemed to be cost-effective, given the Plan's current benefit-cost ratio of 2.9 under the Program Administrator Cost test[2], PSEG-LI is likely leaving significant volumes of cost-effective demand-side management investments on the table. We strongly urge PSEG-LI to revisit this question, and to increase the $200 million budget if it concludes such investments can provide safe and reliable service at a lower cost than more traditional investments for the system.

The Joint Commenters believe the Plan provides a critical opportunity for PSEG-LI to protect Long Island ratepayers, meet its climate change and renewable energy goals, and begin the transition to utility-scale clean energy. In order to achieve Governor Cuomo's promise to create "a new utility system that puts ratepayers first,"[3] the Plan must minimize the need for current and future fossil-fuel generation and associated infrastructure costs, while also maximizing the economic and environmental benefits which flow from energy efficiency, large-scale renewable projects such as offshore wind, localized distributed energy, and energy storage.

The following comments reflect Joint Commenters' perspective on components of the portfolio that we support, those that could be strengthened, as well as some that should be abandoned and replaced with smarter investments in other areas. The following summarizes these recommendations:

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[1] Office of the New York State Comptroller: The Prevalence and Cost of Asthma in New York State, April 2014 http://www.osc.state.ny.us/reports/economic/asthma_2014.pdf

[2] For more recommendations on valuing investments in energy efficiency, see http://aceee.org/files/pdf/conferences/eer/2013/4B-Lazar.pdf and http://emp.lbl.gov/sites/all/files/napdr-cost-effectiveness.pdf .

[3] https://www.governor.ny.gov/press/07292013-restructure-utility-operations-on-long-island

- **Greenhouse Gas (GHG) reductions:** The Plan should explicitly include the reduction of GHG emissions as one of its key objectives, consistent with the goals of Governor Cuomo's Draft State Energy Plan to achieve a 50% reduction by 2030 and an 80% reduction by 2050.[4] Future investments should be evaluated through the lens of mitigating climate change impacts;
- **Reduce Reliance on Fossil Fuels:** The Plan should seek to reduce current and future investment in fossil-fuel generation; specifically the 125 MW of proposed fossil peakers for the South Fork should be abandoned in favor of cleaner and more cost-effective (and readily available) alternatives that can serve as an appropriate prototype for the emerging state-wide REV proceeding;
- **Solar:** Future updates to the Plan should expand on the proposed supplemental solar PV programs;
- **Energy Efficiency:** The Plan should adopt concrete goals for overall energy efficiency efforts; a 2% per year increase in energy savings is an achievable goal as demonstrated by states with best practices in place[5] and the Plan's targeted investment in affordable multifamily housing;
- **Improved "System Efficiency" should be one of several objectives shaping the portfolio—not *the* driver:** The Plan highlights the trend that Long Island's load factor has been declining in recent years and is currently at 44.6%, which is lower than the rest of state largely due to the more residential and service oriented nature of Long Island's economy. Improving system efficiency is an important consideration from a cost and emissions perspective, particularly on Long Island with its unique locational capacity requirements. However, PSEG-LI must pursue a balanced approach that avoids an overemphasis on peak reduction (MW) to the detriment of overall demand (MWh) reduction[6];
- **Data Access:** As laudably noted in the Plan, system and customer data can reveal near-term opportunities for improved customer service and the successful development and deployment of clean distributed generation, energy efficiency and demand response. Consistent with recommendations made in the REV proceeding,[7] the Plan should include a process and timeline to enable universal access to system and consumer data on proposed and planned data acquisition assets, while considering any commensurate privacy or security concerns;
- **Prioritize Utility Scale Renewable Energy including Offshore Wind:** The Plan should include explicit language regarding how PSEG-LI will work closely with LIPA to ensure the 280 MW renewable RFP is executed in a timely manner by year-end 2014—and also include additional detail on how PSEG-LI plans to procure increased volumes of utility-scale renewable energy moving forward;

[4] 2014 New York State Draft Energy Plan, 29.
[5] http://www.nrdc.org/energy/scaling-up-energy-efficiency.asp
[6] For example, if the "tails" of the load shape are raised to a greater degree than the peak is lowered, it would result in an improved system efficiency percentage, but (based on the current power supply portfolio) also increased emissions and greater overall electric demand.
[7] DPS staff has proposed that a bi-directional information exchange be established from data acquisition assets such as meters and distributed energy resource assets installed on both sides of the meter. *See* Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, Developing the REV Market in New York: DPS Staff Straw Proposal on Track One Issues, August 22, 2014 (the "REV Staff Straw") at 24-25.

- **Electric Vehicles:** The Plan should expand on past programs to develop a comprehensive program that removes barriers to widespread adoption of electric vehicles. The plan should address utility rates for optimal electric vehicle charging, public education and outreach, the smart integration of electric vehicles in recognition of their value for demand response and energy storage and investments in electric vehicle charging infrastructure.
- **Clean Distributed Generation:** The Plan's proposal to support the installation of high efficiency combined heat and power systems (CHP) is encouraging, but it should also allow for fuel cells and other clean DG to participate as long as it meets certain efficiency and emissions thresholds;
- **Scale and Scope**: With a portfolio cost-benefit of nearly 3:1, PSEG-LI should revisit the Plan with an eye towards capturing greater volumes of cost-effective resources. If this analysis concludes there is more energy efficiency and clean distributed generation that could be deployed at a net benefit to consumers, the dollar budget and procurement targets should be increased.

II. Background

In July 2013, Governor Cuomo signed the LIPA Reform Act, promising Long Islanders an improved 21st century utility to reorganize the Long Island Power Authority under the new PSEG-LI utility. The Act included the goal of "continuing and expanding such measures that cost-effectively reduce system-wide peak demand, minimize long-term fuel price risk to rate payers, lower emissions, improve environmental quality, and seek to meet New York state climate change and environmental goals."[8] Specific to this goal were the "implementation of any renewable energy competitive procurement or feed-in-tariff programs that were approved by [LIPA]."[9] The Act also required LIPA or PSEG-LI to submit a proposed plan by July 1, 2014 ""related to implementing energy efficiency measures, distributed generation or advanced grid technology programs."[10]

On December 31, 2013, LIPA and PSEG-LI signed an Operating Services Agreement ("OSA"). The OSA allows PSEG-LI to "propose to LIPA capital investments which would. . . result in meaningful reduction in customer energy usage and the overall cost of energy in the Service Area."[11]

On a similar state-wide track, on April 25, 2014, the New York Public Service Commission ("PSC" or "Commission") initiated the Reforming the Energy Vision ("REV") proceeding to reform New York's state-wide utility structure to enhance customer engagement, maximize system-wide efficiency, and expand the role of distributed energy resources to increase fuel diversity and system reliability and resiliency. In tandem with the REV proceeding, the Commission also initiated the development of the Clean Energy Fund to ensure continuity of New York's existing renewable and energy efficiency programs, aided by the emerging New York Green Bank.

[8] New York Public Authorities Law § 1020-f(gg).
[9] *Id.*
[10] *Id*., § 1020-f(ee).
[11] OSA, section 4.2(A)(7).

On July 1, 2014, PSEG-LI released the Utility 2.0 Long Range Plan for public comment. The Plan calls for $200 million of new funding from 2015 to 2018 focused on specific programmatic investments to improve energy efficiency and reduce Long Island's peak load. The Plan builds on existing Requests for Proposals ("RFPs") by LIPA released in October 2013. These include a 100 MW solar feed-in-tariff, a 20 MW RFP for fuel cells and distributed wind, a 280 MW RFP for large-scale renewables, and a 1,600 MW RFP to replace current peaking generation with a variety of energy efficiency, demand response, and energy storage options.

III. Comments

1. The Plan Should Include the Reduction of Carbon Emissions as One of its Key Objectives

Consistent with New York's formal climate commitments and the increasing recognition that climate impacts must play a central role in decision-making in the energy sector, the Plan should incorporate reduction of greenhouse gas emissions as one of its core objectives. In its order initiating the REV proceeding, the Commission recently stated that one of its six main objectives was the "reduction of carbon emissions."[12] Similarly, the Commission's accompanying Staff Proposal recognized that one of the most important factors driving fundamental change in the electric industry is the "need to reduce carbon emissions and the associated costs and threats to infrastructure posed by increasingly severe climate events."[13]

Despite the Plan's acknowledgment of the Commission's goal to reduce carbon emissions,[14] the Plan fails to include this goal or any reference to emissions reductions among its stated key objectives. And while the Plan appropriately references EPA's recently proposed Clean Power Plan to reduce carbon emissions from existing power plants and the prominent role of renewables and efficiency in achieving those reductions, it fails to discuss how these investments will contribute to Governor Cuomo's State Energy Plan 80% by 2050 GHG reduction goal by or the interim goal of 50% by 2030.

In keeping with the objectives of REV and Governor Cuomo's carbon reduction goals, the Plan should add the reduction of carbon emissions as one of its key objectives. To track progress, the Plan should also include transparent performance metrics for measuring carbon reductions as PSEG-LI continues to modernize the electric system on Long Island. These metrics could include a mass-based carbon metric in the form of absolute tons of CO_2, a rate-based system average (pounds per megawatt hour of CO_2), distributed energy resource adoption and market penetration, and renewable energy generation and energy efficiency savings targets.

2. The Plan Should Discourage Further Investment in Current or Future Fossil-Fuel Generation

[12] REV order, 2.
[13] *Id*., 2.
[14] Plan, 2-3.

As evidenced most recently by PSEG-LI's decision that the proposed Caithness II power plant will not be needed, we applaud the Plan's goal "to displace currently planned generation expansion through a reassessment of resource needs coupled with accelerating investments behind the meter at customer facilities in more energy efficient equipment with direct load control capability."[15] A careful ongoing evaluation of alternatives to further investments in fossil fuel generation and infrastructure is critical to achieving the State's climate goals on Long Island.

The Plan's effort to address the South Fork's aging infrastructure in a manner that minimizes and defers new fossil fuel generation is an encouraging illustration of LIPA's commitment to this goal. By obviating the need for transmission upgrades to address load growth and reliability concerns in this area, the Plan will save Long Island ratepayers approximately $300 million in unnecessary costs.[16] However, the Plan's design options for the South Fork include the *potential* addition of 125 MW in new peaking fossil-fuel generation. Compared to renewable resources such as wind and solar, further commitment by PSEG-LI to large quantities of fossil-fuel generation will decrease Long Island's fuel diversity, subjecting ratepayers to increasing price volatility as experienced during the recent polar vortex. Furthermore, more fossil-fuel generation will lock Long Island into significant GHG emissions and exacerbate climate change impacts in New York. Regulation of GHGs is rapidly advancing, and PSEG-LI must consider this in its short-term and long-term planning.

While the South Fork design options envision 125 MW in future fossil-fuel generation, the Plan importantly contains the caveat that "[t]o the extent additional Solar, Energy Efficiency, and [Direct Load Control] can be achieved the need date for the peaking generation can be deferred or eliminated."[17] This component of the proposal—continued investment in dirty and expensive fossil-fuel generation—stands in stark contrast to, and is inconsistent with, the balance of the portfolio. The Plan should instead emphasize the potential for renewable energy, energy storage, and energy efficiency programs to defer or eliminate the need for these peaker plants (as much of the rest of the Plan appropriately does). Proposed renewable and energy storage projects for the South Fork include a 210 MW offshore wind farm,[18] at least 60 MW of utility scale PV projects, and 25 MW of 12 hour battery storage (which could provide 75 MW over 4 hours). Given the abundance and availability of renewable energy, energy storage and efficiency initiatives, complementing antiquated fossil-fuel infrastructure with additional fossil-fuel infrastructure is contrary to the Plan's goal to displace generation expansion by accelerating investments in clean energy and energy efficiency.

Furthermore, when compared to continued fossil-fuel investments with uncertain long-term costs, utilizing and expanding these proposed programs also appears to be the lower cost option. Based on PSEG-LI's estimates of the avoided cost of new capacity and energy,[19] the approximate average cost of new peakers could be between 20 ¢/kWh and 29 ¢/kWh. The price for solar electricity under LIPA's CSI II is 16.88 ¢/kWh and guaranteed for the 20 year duration

[15] Plan, 1-2.
[16] Plan, 3-29.
[17] Plan, 3-31.
[18] Based on NYISO rules, Deepwater Wind's proposed 210 MW offshore wind farm will provide 85 MW of NYISO-qualifying capacity to the South Fork load pocket during the summer, and 125 MW during the winter.
[19] Plan A-3 and A-11.

of the Power Purchase Agreement. Offshore wind power is expected to come in at around the same price.

There is also broad public and political support for clean energy investment for the South Fork, as evidenced by the recent passage of the East Hampton town resolution committing to 100% renewable electricity by 2020. In order to meet the town's goal, East Hampton residents support localized energy sources, energy storage, solar and utility-scale offshore wind. Importantly, utilizing this mix of distributed solar, offshore wind, energy storage, and efficiency and demand response measures for the South Fork would serve as the perfect prototype and opportunity to implement/actualize the vision outlined by state-wide REV initiative.

For all of these reasons, Joint Commenters strongly urge PSEG-LI to abandon the proposal for 125 MW of proposed fossil peakers for the South Fork in favor of cleaner, more cost-effective, and readily available alternatives that can provide the needed reliability and voltage support without the pollution and other environmental impacts. National Grid's May 2013 retirement of 6 MW of heavily polluting oil peakers in Montauk was a step forward for air quality on the East End; building out more such facilities would be a step back.

3. The Plan's Proposed Solar PV Programs are a Good Initial Step, and Should be Expanded in the Future

While achieving significant GHG reductions, investment in solar PV programs also provides a number of economic benefits. As NYSERDA explained in its NY-Sun Petition, New York's solar PV programs can "provide long-term program certainty to solar photovoltaic (PV) system developers, attract significant private investment in PV systems, enable the sustainable development of a robust PV industry in New York, create well-paying skilled jobs, improve the reliability of the electric grid, and reduce air pollution."[20] The proposed solar manufacturing facilities at Riverbend in Buffalo, recently announced by Governor Cuomo, are expected to include a $750 million investment and create 475 new jobs.

The Joint Commenters commend PSEG-LI's continued support for both customer-sited and utility-scale PV deployment. Specifically, we applaud the Plan's proposal for a targeted solar PV expansion aimed at behind-the-meter commercial scale PV systems with a capacity between 200 kW and 2 MW, toward a goal of 60 MW through 2017. In order to avoid balkanization of the market and maximize cost-effective PV deployment under Governor Cuomo's NY-Sun program, PSEG-LI should continue to closely coordinate with NYSERDA to ensure this program is consistent with NYSERDA's competitive (and soon to be declining MW block) PV program while tailoring it to reflect Long Island's unique market characteristics and system needs.

We also support the Plan's proposed incentive program for the Rockaways for PV systems between 200 kW and 1 MW. As part of this program, we agree with the Plan's proposal to provide a premium value incentive for west-facing PV systems in order to appropriately compensate those projects with high capacity value coincident with peak demand.

[20] Case 03-E-0188; Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, NYSERDA Petition for NY-Sun 2016-2023 Funding Considerations and Other Program Implementation Considerations, 1 (Jan. 6, 2014).

Furthermore, to maximize the amount of smaller, more distributed PV arrays, we recommend that LIPA and PSEG-LI adopt a tariff and provide incentives for community-shared solar, an arrangement where a solar-electric system situated in another location within the service territory provides power and/or financial benefits to multiple community members. This would allow customers whose properties are not suitable for installation of PV arrays to buy a share in a larger array and receive credit for their shares' electric production on their electric bills.

Regarding the Clean Solar Initiative II, we are concerned that while 40 MW were sought on the South Fork, only 21.6 MW of proposals were qualified and selected. Furthermore, it appears that some of these proposals have been withdrawn, further exacerbating this shortfall from the 40 MW goal. To correct for this shortfall, we recommend that, to the extent possible, PSEG-LI work with LIPA and responding developers to replace proposals that were withdrawn with projects that were submitted but not selected. Furthermore, we encourage PSEG-LI to consider issuing another solicitation specifically for the South Fork. By investing in a new Clean Solar solicitation, PSEG-LI could obviate the need for costly and inefficient investments in the proposed South Fork peakers discussed above. As the Plan states, "[t]o the extent additional Solar, Energy Efficiency, and [Direct Load Control] can be achieved the need date for the peaking generation can be deferred or eliminated."[21] To ensure that an adequate number and the desired total capacity of proposed projects is received, PSEG-LI should work with local governments and other stakeholders to assist in finding suitable locations and properties for siting and interconnecting large scale PV projects on the South Fork.

For future solicitations, we also encourage PSEG-LI to utilize multiple solicitations over a period of time, rather than a single solicitation. With increased and periodic solicitations, solar developers will be offered greater opportunity to amortize overhead and fixed costs over a series of projects. The creation of consistent, predictable and repeated market opportunities over a sufficient period of time will help drive cost reductions and provide market participants greater certainty for investing resources in Long Island's solar market for the long-term.

4. The Plan Should Build on its Solid Foundation for Energy Efficiency

Energy efficiency remains one of the most cost effective strategies for reducing emissions of GHGs and other air pollutants. Moreover, besides reducing air emissions, energy efficiency investments are generally less expensive than other electric resources, which means energy efficiency can also help lower consumer costs compared to most other supply-side strategies. By intelligently targeting these investments, energy efficiency can also strengthen transmission and distribution ("T&D") networks and postpone, or even eliminate, the need for new generation and associated infrastructure costs.

The Joint Commenters commend PSEG-LI's commitment to energy efficiency and are encouraged that the Plan's $200 million in new funding will be "incremental to the continued funding of existing energy efficiency and renewable programs."[22] This is critical given that $200

[21] Plan, 3-31.
[22] Plan, 1-2.

million over four years, while certainly not insignificant, is insufficient to access the great energy efficiency and demand management potential at Long Island homes and businesses.

Scaling up EE in Affordable Multifamily Housing—the Rockaways and Beyond: Joint Commenters strongly support the Plan's proposed energy efficiency expansion to the Rockaways and other underserved customers, as it recognizes the benefits of serving low-income multifamily buildings. PSEG-LI is well-positioned to address this issue, given its nationally recognized multifamily program in New Jersey which has over 16,000 individual apartments registered in the program, of which nearly 50% are senior housing.[23]

We strongly support the proposal for PSEG-LI to work with public housing authorities to implement energy efficiency measures for these underserved populations and suggest that PSEG-LI ensure that all low-income customers have similar access to programs and services throughout the service territory. To this end, we suggest that the Plan should discuss potential solutions to the challenges of implementing efficiency measures in rental units versus owner-occupied units, addressing the "split incentive" and other impediments to capital investment, and ensuring proper incentives to replace older appliances with energy efficient upgrades. This would be consistent with the August 22 DPS staff REV straw proposal, which acknowledges the need to remove barriers to energy efficiency in the multi-family sector and recommends that utilities address split incentives within their REV implementation plans. [24] In addition, the Plan should not limit these investments in the affordable multifamily sector to the Rockaways, but rather should use that targeted investment as a springboard for an Island-wide initiative to deliver "energy efficiency for all."[25]

Thermostats: Joint Commenters support The Plan's Programmable Thermostat Program Modernization and Expansion "to enhance existing direct load control program with modern technology and increase customer participation…and test smart plug technology through a pilot program targeting residential room air conditioning units."[26] Due to the large portion of residential customers and cooling load driven peak, these investments will provide a useful tool for PSEG-LI to efficiently manage its system. As with many other aspects of the Plan, PSEG-LI should revisit the scale and pace of deployment in order to confirm whether or not greater penetration sooner is in the consumer interest.

Behavioral Programs: We strongly support PSEG-LI's Residential Home Energy Management program. However, PSEG-LI should consider increasing the proposed level of households and corresponding energy savings goals. As the Plan acknowledges, the 0.5% energy savings target is the minimum achieved by other similar programs, which range from 0.5% - 2%. Furthermore, the Plan should expand beyond the allotted 250,000 customers, which represent only 22% of LIPA's total customer base. Expanding the program's reach and energy savings goal will not

[23] https://www.pseg.com/info/media/newsreleases/2013/2013-03-27.jsp.
[24] *See* Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, DPS Staff Straw Proposal, at 29-30 (August 22, 2014).
[25] Historically, despite the heightened environmental, public health, and economic benefits energy efficiency provides to low-income tenants and the system as a whole, the affordable multifamily housing sector has been proportionally underinvested in by most utility energy efficiency portfolios. *See* http://www.nrdc.org/energy/files/multifamily-housing-energy-efficiency-FS.pdf
[26] Plan, 1-7.

only result in more savings for Long Island consumers, but also furthers the broader state-wide REV goal of "[e]nhanced customer knowledge and tools that will support effective management of their total energy bill," thereby empowering customers to more intelligently manage their energy use.[27]

AMI: We commend PSEG-LI for its advanced metering proposal, especially the proposal to ensure advanced metering communication network capability covers the entire service territory. We do note, however, that advanced metering can be beneficial for smaller customers or on the utility side of the distribution system as well as for large customers. Advanced metering supports and encourages customer engagement, allows utilities and the Commission to benchmark current penetration of demand-side resources and monitor progress toward set goals, as well as helping third party providers enter the market for distributed energy resources.

Access to Data: In order to achieve its "2.0" modernization goals, the Plan must actively engage many different types of customers as partners. A recent state-wide survey in the REV proceeding found that "Long Island respondents are significantly less likely than those in New York City and Upstate to say that they understand the components of their electric bill."[28] Likewise, technology providers, including those who wish to provide energy management services and those who wish to establish distributed energy resources, do not have the information that will enable them to provide services, and do so where they are needed most on the grid.

However, the survey also found that Long Island residents were more interested than any other respondents in having monthly electric usage information.[29] To encourage customer engagement, the Plan should include a process and timeline that will enable the expansion of data access while considering privacy and security concerns. This will allow the Plan to maximize its planned investments in "smart" technologies in a way that allow for deeper customer engagement and increased cost effective penetration of clean and renewable energy. As an instructive example, the REV Staff Straw Proposal proposes that a bi-directional electricity data information exchange be established for data acquisition assets. The purpose of this exchange, which customers could opt out of, is to enhance distribution system monitoring and control, reveal opportunities for near term distributed energy resource products and services.[30]

While we recognize PSEG-LI's proposal is being deliberated prior to Commission action on the aforementioned Staff Straw Proposal, we believe that the Plan should appropriately include more explicit details on how PSEG-LI will facilitate data access for customers, and that the approach should be tailored to the unique Long Island market while still being generally consistent with the REV directives in this area.

5. The Plan Must Improve LIPA's Existing Renewable Portfolio

As the 2014 New York Draft Energy Plan stated, "investments in clean energy strategies will help New York to reduce the intensity of its carbon emissions from the energy sector by 50

[27] REV Order, 2.
[28] *See* Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, 2014 Survey of Residential Electric Customer Interest in Value-Added Products and Services, at 10 (August 20, 2014).
[29] *Id*., at 28.
[30] REV Order, 2.

percent by 2030 . . . putting New York on a pathway to achieve an 80 percent reduction in total emissions by 2050."[31] Furthermore, the U.S. Environmental Protection's Agency ("EPA")'s recently released Clean Power Plan states, "the most cost-effective approach to reducing GHG emissions from the power sector under CAA section 111(d) is . . . emissions-reduction opportunities that states have already demonstrated to be successful in relying on lower- and zero-emitting generation and reduced electricity demand."[32]

In order to minimize and/or eliminate further investment in antiquated fossil-fuel generation, and to contribute to the State's greenhouse gas reduction and renewable energy goals, the Plan must include a discussion of utility-scale renewable energy beyond the current 280 MW RFP and other legacy LIPA initiatives. While following through on all of these important clean energy commitments in a timely manner is essential, they are by no means the end of the line for renewables of any size on Long Island. Rather, these investments only begin to scratch the surface of the Island's vast, untapped renewable energy potential.[33]

While the Plan's proposed solar PV and energy efficiency programs are commendable, the Plan is noticeably lacking in both a short-term and long-term vision for improving LIPA's utility-scale renewable portfolio. In furtherance of the Plan's goal to promote resource diversity, renewable energy carries no future regulatory risks or emissions costs, creates no harmful emissions, and its "fuel" is always free. This effect has been confirmed in several studies. Illinois estimates that renewable resources have lowered the Locational Marginal Prices ("LMPs") in Illinois in 2011 by $1.30/MWh.[34] "The aggregate result is a savings of $176.85 million in total load payment for generation in Illinois."[35] Massachusetts found similar price suppression results from renewable energy and "it is estimated that Massachusetts electric customers in total benefit by approximately $50 per year per additional megawatt-hour of renewable generation in that year."[36] Overall, Massachusetts found the benefits of renewable energy nearly tripled the associated costs.[37]

Though LIPA committed in its 2010-2020 Electric Resource Plan to contributing to the state-wide RPS goal of 30% renewable generation by 2015, Long Island's current renewable portfolio is far short of that target. To achieve its share of renewable resources, LIPA projected that by 2015, 12.4% of its energy would be provided by new renewable resources, with LIPA's total renewable resources reaching 16.5%.[38] However, as Figure 1 illustrates, in the 12-month

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[31] 2014 New York Draft Energy Plan, 29.
[32] U.S. EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 F.R. 34850 (June 18, 2014).
[33] *See* Synapse, A Clean Electricity Vision for Long Island (August 29, 2012), available at http://www.synapse-energy.com/Downloads/SynapseReport.2012-08.RELI.Long-Island-Clean-Energy-Vision.11-054.pdf
[34] Illinois Power Agency, Annual Report: The Cost and Benefits of Renewable Resource Procurement in Illinois Under the Illinois Power Agency and Illinois Public Utilities Acts, at 18-19 (March 30, 2012), available at http://www.illinois.gov/IPA.
[35] *Id*. at 19.
[36] Executive Office of Housing and Economic Development and Executive Office of Energy and Environmental Affairs, Recent Electricity Market Reforms in Massachusetts: A Report of Benefits and Costs, at 32 note 17 (July 2011), available at http://www.mass.gov/eea/docs/doer/publications/electricity-report-jul12-2011.pdf
[37] *Id*. at 24.
[38] *Long Island Power Authority-Electric Resource Plan 2010-2020*, 24 (February 2010).

period between October 2009 and September 2010, LIPA's renewable resources generated 3% of its total energy. Between September 2010 and September 2012, Figure 2 shows that LIPA's renewable percentage of its total energy generation did not improve at all. Despite more than doubling LIPA's Efficiency and Renewables program budget, from $52 million in 2009 to over $120 million in 2013, in that time LIPA has only contracted for 50 MW of new renewable generating capacity.

Figure 1

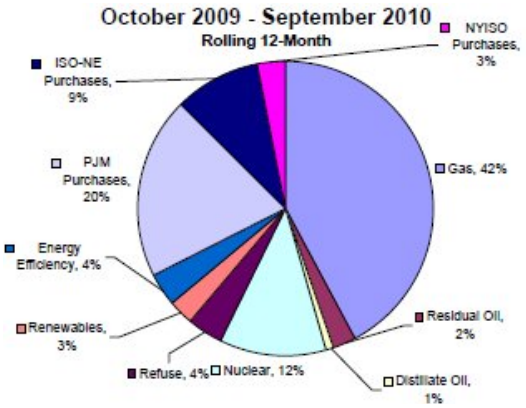
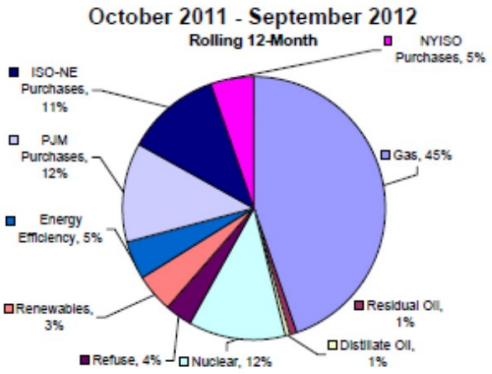


Figure 2

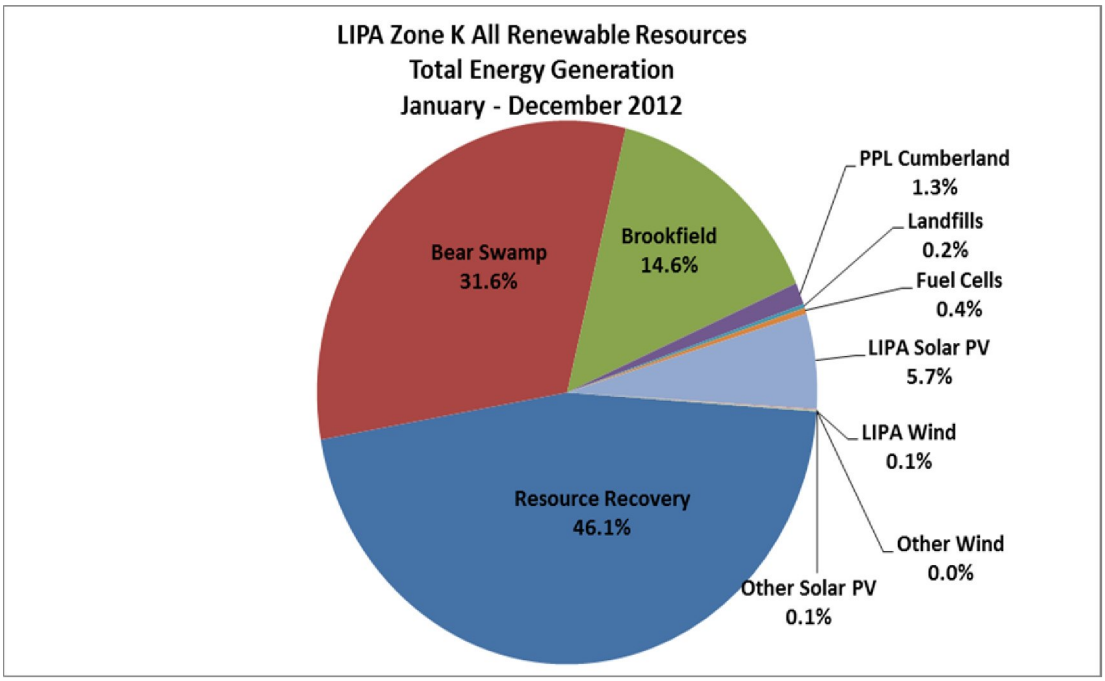


LIPA Report to the Board of Trustees, September Operations (October 28, 2010), (October 25, 2012).

Despite its 2010 projection that 12.5% of its energy would be provided by **new** renewable resources, LIPA's renewable generation percentage in 2013 remained at 3% (the same as in 2010). LIPA's total contribution to the NY RPS in 2012 was 145,521 MWh, accounting for less 1% of its total 2012 load.[39] Figure 3 illustrates LIPA's complete 2012 renewable portfolio, totaling 1,971,785 MWh:

[39] *See LIPA Proposed 2013 Operating Budget*. LIPA's contracts with Bear Swamp and Brookfield contain pre-2003 Renewable Energy Credits ("RECs") and Green Attributes which are ineligible under the NY RPS, and LIPA's contract with PPL Cumberland, which represented 18% of LIPA's total RPS contribution in 2012, is ineligible due to the PSC's May 2013 order limiting RPS eligibility to in-state projects.

Figure 3



LIPA's renewable energy shortcomings are exacerbated by the fact that almost all of LIPA's renewable portfolio does not meet the New York criteria for RPS eligibility established by the PSC, and many of these projects are out-of-state. Because of this, Long Island residents receive reduced economic benefits from these projects. Since Long Island residents fund the bulk of LIPA's Efficiency and Renewables program, PSEG-LI should seek to maximize all of the environmental and economic benefits associated with these programs, including manufacturing, job creation, and tax benefits to surrounding communities. As the Commission stated in a recent Order, "we cannot afford at this juncture to expend limited ratepayer funds on projects that do not maximize all of the resulting benefits—in terms of economics as well as energy security and environmental benefits."[40] The Plan should ensure compliance with Long Island's renewable energy goals, while also ensuring that Long Island residents receive the maximum achievable economic and environmental benefits which flow from these projects.

6. The Plan Should Incentivize the Development of Offshore Wind Power

To expand its renewable portfolio, LIPA released a 280 MW renewable RFP in October 2013, with decisions expected by the end of this year. Investing in a large, utility-scale offshore wind project as part of the 280 MW RFP would address many of the stated key objectives of the Plan by increasing fuel diversity, modernizing Long Island's clean energy infrastructure, enhancing system resiliency and reliability, and creating green jobs on Long Island.[41] Offshore wind power is the only clean energy opportunity at the scale necessary that can produce electricity demand to New York City and Long Island suburbs where and when the energy is

[40] Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Order Modifying Renewable Portfolio Standard Program Eligibility Requirements, 32 (May 22, 2013).
[41] *See* Plan, 1-5.

needed the most. Investing in offshore wind avoids the need for costly, controversial new transmission lines and new "peaking plants", reducing Long Island and New York's overreliance on fossil fuels.

In furtherance of the Plan's goal to create jobs, offshore wind presents an enormous opportunity for economic growth on Long Island. Studies commissioned by NYPA have shown that a single offshore wind project could generate total economic activity of "$1 billion in sales, 8,700 job-years and $610 million in wages" for New York State. [42] Such economic investment would revitalize coastal communities recently affected by Hurricane Irene and Superstorm Sandy.

Not only will offshore wind help create thousands of jobs and economic benefits, but it will also dramatically reduce electricity prices for New Yorkers. By producing power when demand is highest, offshore wind can suppress and stabilize energy prices in New York. As the U.S. Department of Energy study found, the "close proximity of offshore wind resources to major electricity demand centers could allow offshore wind to compete relatively quickly with fossil fuel-based electricity generation in many coastal areas."[43]

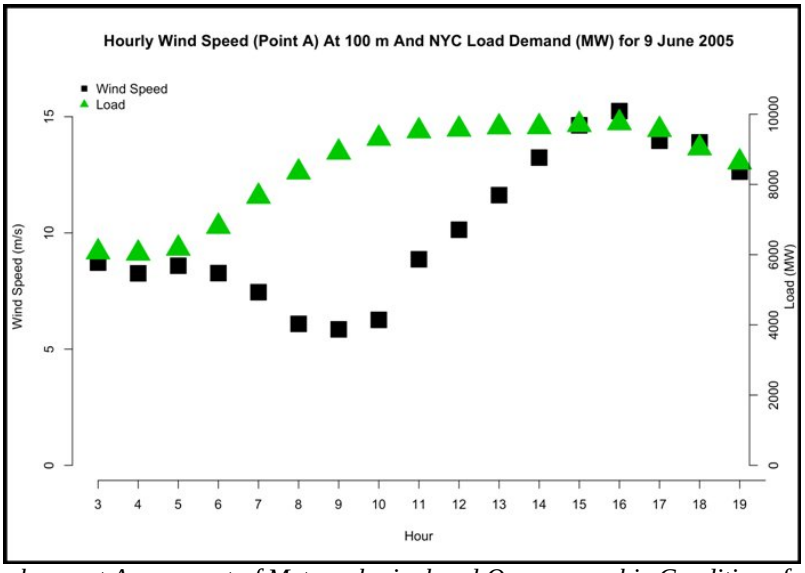
Specifically, due to its offshore wind's robust capacity factor (up to 43% depending on turbine type, as estimated by NYSERDA[44]) and coincidence with peak (such as afternoons, summer heat waves, and winter cold snaps), offshore wind can provide power when it is most needed. As the figure below shows, offshore wind speeds off of Long Island ramp up during the afternoon and reach their maxima at largely the same time that afternoon demand is peaking.[45] Consequently, offshore wind projects have significant potential to moderate peak loads, thereby dramatically reducing costs to Long Island ratepayers.

[42] *Economic Impact Assessment: Long Island – New York City Offshore Wind Project.* Prepared for NYPA by AWS Truepower and Camion Associates. Contract No. 4500191884. November 1, 2010

[43] U.S. Department of Energy, "A National Offshore Wind Strategy: Creating an Offshore Wind Energy Industry in the United States", at 6 (February 2011).

[44] NYSERDA, *Pre-Development Assessment of Meteorological and Oceanographic Conditions for the Proposed Long Island – New York City Offshore Wind Project* Area, at 3-2, (Oct. 2010).

[45] New York State Energy Research & Development Authority, Pre-Development Assessment of Meteorological and Oceanographic Conditions for the Proposed Long Island – New York City Offshore Wind Project Area: Final Report 10-22 Task 2 (Oct. 2010), at 2-24, Fig. 17.



NYSERDA, *Pre-Development Assessment of Meteorological and Oceanographic Conditions for the Proposed Long Island – New York City Offshore Wind Project* Area, at 2-24, (Oct. 2010).

In concert with supporting the build-out of offshore wind and other renewables, and in order to further demand reductions and ratepayer costs, the Plan should recommend utilization of energy storage in the 1,600 MW peaking RFP. Energy storage confers many benefits beyond facilitating the transition to renewable energy, including improved power quality and reliability and reduced transmission congestion. Adding energy storage would enable Long Island maximize its clean energy capacity, while also furthering the Plan's objectives to reduce demand, lower ratepayer costs, and defer the need for future conventional generation and accompanying transmission costs.

In order to realize these economic and environmental benefits, LIPA and PSEG-LI must act quickly. Many states like Massachusetts, Rhode Island and Maryland are already moving forward with strong programs and policies to advance offshore wind, and projects are underway currently in Massachusetts and Rhode Island. Without action by PSEG-LI in 2014, offshore wind developers are likely to invest their facilities elsewhere. Therefore, to realize the enormous economic and environmental benefits from offshore wind development, the Plan should commit in 2014 to invest in an offshore wind project for the 280 MW RFP and plan to add new offshore wind projects in the future through the NYPA-LIPA-Con Ed Collaborative Project and other opportunities as the federal Bureau of Ocean Energy Management moves forward with designating areas offshore New York for commercial wind power leasing, as they have already done for seven states.

The Plan should also include potential initiatives that can be coordinated, and new partnerships forged with state energy agencies such as NYSERDA and NYPA to further incentivize offshore wind development off the coast of Long Island.

7. The Plan Should Include Investments in Electric Vehicle Infrastructure

The transportation sector accounts for the largest portion of New York's GHG emissions, and historically has also been the fastest growing contributor year over year. Electrifying New

York's vehicle fleet would dramatically reduce carbon emissions to help New York achieve its GHG reduction goals.

While the Plan recognizes that LIPA and PSEG-LI continue "to be involved in activities related to supporting the market launch of electric vehicles on Long Island,"[46] the Plan contains no investments to further electrify Long Island's vehicles. In order to further LIPA and PSEG-LI's electric vehicles programs, the Plan should address utility rates for optimal electric vehicle charging, public education and outreach, the smart integration of electric vehicles in recognition of their value for demand response and energy storage and investments in electric vehicle charging infrastructure.

8. PSEG-LI's Decision on an Appropriate Investment Recovery Model Should be Deferred

PSEG-LI proposes two alternatives for recovery of their investment, a performance-based model and a savings driven model. The Public Service Commission is expected to make decisions on how utilities will earn a rate of return under the new "Utility 2.0" type models envisioned within Track II of the REV proceeding. Because PSEG-LI should be treated similarly to other utilities operating within New York, we respectfully suggest that a decision on this particular issue be deferred until a later date in order to more closely align the decision with similar decisions within the REV proceeding.

IV. Conclusion

Joint Commenters appreciate this opportunity to comment on PSEG-LI's Utility 2.0 Plan. The Company is to be commended, as it has clearly put a great deal of thought and analysis into its drafting, and has done so under a very tight timeframe. As stated above, we urge PSEG-LI to build upon many of the positive components of the proposal and rethink others. We look forward to continuing to work with staff at DPS, PSEG-LI, LIPA, and the Governor's office, as well as other stakeholders, in order to ensure that the Plan ultimately adopted in December maximizes clean energy resources and establishes Long Island as a national leader on clean energy,

Thank you for your consideration.

Respectfully submitted,

[46] Plan, 2-13.

_____/s/_____
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