

**PROPOSAL CONCERNING UTILITY 2.0 INVESTMENTS AND
ASSOCIATED AMENDMENTS TO THE OPERATING SERVICES AGREEMENT**

Requested Action

PSEG Long Island PSEG Long Island is requesting that the Trustees of the Long Island Power Authority (the “Authority” or “LIPA”) approve a resolution authorizing (1) certain capital investments by PSEG Long Island in LIPA’s service territory in energy efficiency, demand response, distributed generation and related programs (“Utility 2.0 Projects”) in a phased approach over a four-year period commencing 2015 through 2018 in an amount up to \$200 million within defined cost-benefit criteria; (2) certain amendments to the December 31, 2013 Operating Services Agreement (“OSA”) to provide for the payment by the Authority to PSEG Long Island of compensation for PSEG Long Island’s capital investments associated with the Utility 2.0 Projects; and (3) the “ ‘Utility 2.0’ Long Range Plan” (“Utility 2.0 Plan” or “Plan”) that accompanies this Proposal and sets forth in greater detail the proposed capital investments and associated OSA amendments. As explained below and in the accompanying Plan, the proposals will have no upward rate impacts until 2016; thereafter, any rate impacts are expected to be minimal and offset by the anticipated benefits of the program, including avoided cost of alternative capacity and energy investments, and reduced peak demand and energy consumption. To help ensure that the proposed programs can be incorporated into the budgeting decisions expected to be made around the beginning of 2015 and to allow for sufficient lead time in advance of the 2018 summer peaking loads, PSEG Long Island requests that the Authority’s Board of Trustees approve this Proposal and the accompanying Utility 2.0 Plan by December 1, 2014.

As required by the LIPA Reform Act, this Proposal and Utility 2.0 Plan is contemporaneously being submitted for review by the New York Department of Public Service (“DPS”). The LIPA Reform Act requires the review of this Proposal and accompanying Utility 2.0 Plan by the DPS. Although DPS approval is not required by the LIPA Reform Act, the OSA provides that PSEG Long Island will “... take into account the recommendations and comments of the DPS, LIPA and the public....” Accordingly, PSEG Long Island is further requesting that LIPA indicate its support of the Utility 2.0 Projects and the associated capital investments and investment recovery approach contained in this proposal and the attached Utility 2.0 Plan.

Background

The LIPA Reform Act requires LIPA or its service provider, PSEG Long Island, on or before July 1, 2014, and annually thereafter, to submit to the DPS for review, a proposed plan “related to implementing energy efficiency measures, distributed generation or advanced grid technology programs”¹ with the intent of providing customers with the means to “more efficiently and effectively manage their energy usage and utility bills” and to improve system reliability and power quality.² Section 4.2(a)(5) of the OSA similarly requires PSEG Long Island to file a long range capital and operating plan with LIPA and the DPS “... to improve the [Transmission & Distribution] (“T&D”) System’s long run flexibility, service and value to customers and move the T&D System toward a customer-centric model.” The OSA also provides that the plan shall, among other things, be designed to:

- (a) provide greater (i) customer flexibility for distributed energy resources and management, (ii) system-wide benefits in energy affordability and improved service and (iii) system resiliency and reliability;

¹ PAL § 1020-f(ee).

² PSL § 3-b(3)(g).

- (b) incorporate, where cost effective, programs to reduce or defer significant capital expenditures associated with the traditional T&D System and smooth peak demand, including programs related to energy efficiency, demand response, distributed generation, energy storage, micro-grid systems and vehicle recharging;
- (c) incorporate, where cost effective, advanced power controls for transmission and distribution facilities, technology-based energy efficiency and load management programs, real-time power monitoring equipment and integrated communications systems; and
- (d) identify those portions of the T&D System for which unregulated, value-added services could be offered to customers by alternative energy providers, including the Service Provider's Affiliates.

In addition, section 4.2(A)(7) of the OSA provides that PSEG Long Island can propose to LIPA capital investments that "... are expected to result in meaningful reduction in customer usage and the overall cost of energy in [LIPA's] [s]ervice [a]rea." The OSA further provides that PSEG Long Island will have the opportunity to earn a "reasonable rate of return" on its proposed capital investments that are "consistent with the returns permitted to be earned on such investments by New York State electric transmission and distribution utilities."

On April 25, 2014, the New York Public Service Commission ("NYPSC") commenced a proceeding to reform the energy vision in Case No. 14-M-0101 ("REV Proceeding"). The intent of the proceeding is to reform New York State's energy industry and regulatory practices to promote more efficient uses of energy, deeper penetration of renewable energy resources such as wind and solar, wider deployment of "distributed" energy resources, such as micro grids, on-site power supplies, and storage. It will also promote greater uses of advanced energy management products to enhance demand elasticity and efficiencies. The intent is that these changes, in turn, will empower customers by allowing them more choice in how they manage and consume electric energy.

PSEG Long Island submits that this Proposal and the accompanying Utility 2.0 Plan are consistent with requirements of the LIPA Reform Act, the OSA and the NYPS&C regulatory policy objectives stated in and being further developed in the REV Proceeding as explained more fully below in the next section. In accordance with Section 4.2(A)(7), by this Proposal and the attached Utility 2.0 Plan, PSEG Long Island is providing to LIPA “... a description in sufficient detail to enable LIPA to make a fully informed assessment and analysis of ... [the] proposed capital investment[s] together with the reasons and cost justification for proposed Utility 2.0 capital investments and the associated reimbursement/cost recovery approach.”

Proposed 2014-2018 Utility 2.0 Projects

By this proposal and the attached Utility 2.0 Plan (Section 3), PSEG Long Island is proposing a number of near-term investments that are designed to cost-effectively deliver safe, reliable and affordable service, considering all factors, including total costs to customers, environmental impacts, customer satisfaction, policy goals and overall system efficiency. As LIPA’s service provider, and through the extensive experience of PSEG Long Island’s New Jersey utility affiliate in advanced energy efficiency and demand response programs over the last five years (See Utility Plan at Section 1), PSEG Long Island is well positioned to implement the initiatives outlined in this Proposal and detailed in the Utility 2.0 Plan.

LIPA has invested significant efforts and has gained valuable experience with key smart grid technologies such as distribution automation, smart meters and integration of operational technologies in the last few years that PSEG Long Island intends to continue to implement and build upon LIPA’s clean energy initiatives as appropriate. (Utility 2.0 Plan, Sections 1 - 2) . This Proposal will also complement a number of other efforts underway to facilitate system

reliability and resiliency and improve customer service, including certain funding obtained from the Federal Emergency Management Agency (Utility 2.0 Plan, Section 2).

The OSA and the LIPA Reform Act require annual filings regarding PSEG Long Island's long range capital and operating plan. Thus, the longer term goal is to build upon the proposed near term investments to integrate cost effective energy efficiency, distributed generation, and demand response into LIPA's system in a manner consistent with other State energy efficiency programs and NYPSC policies, where appropriate. (Utility 2.0 Plan Section 4)

The immediate focus of the proposed near term projects center on the programmatic and targeted use of distributed energy resources and other technologies that have the potential to enhance customer energy choices and achieve greater system efficiency with an emphasis on reducing peak demands and improving system load factor and asset utilization. The primary objectives of the proposed projects are as follows, with cost-effectiveness being an overlay to each of them:

- To defer/displace 'traditional' T&D investments within specific areas and defined reliability parameters
- To incorporate solutions to optimize generation mix, including those that have the ability to reduce peak demand, improve system load factor, minimize the need for new costly generation, displace inefficient generation, facilitate the integration of demand response and distributed generation
- To bring value to underserved customers (such as low income customers, public agencies, and hospitals) and lower overall system costs through lower energy volumes, lower peaks and lower emissions
- To integrate distributed generation and other advanced technologies where appropriate
- To empower customers to better manage energy consumption and improve customer satisfaction

These objectives are explained in greater detail in Section 1.1 of the Utility 2.0 Plan.

To meet these objectives, PSEG Long Island is proposing to invest up to \$200M in the projects described in the table below within defined cost/benefit test criteria contained in the section that follows. PSEG Long Island is also proposing two capital projects for the Authority to consider, the South Fork Improvements and Large Customer Advanced Metering Initiatives, also described in the table below. Each of these projects and the cost/benefit test criteria are described in further detail in Section 3 of the Utility 2.0 Plan and Appendix A of the Utility 2.0 Plan:

PSEG Long Island Utility 2.0 Long Range Plan¹				
Program	Description	Annual Demand Savings (MW)	Annual Energy Savings (MWh)	Total Investment (\$M)²
Programmable Thermostat Program Modernization and Expansion	Enhance existing direct load control program with modern technology and increase customer participation. Also, test smart plug technology through a pilot program targeting residential room air conditioning units.	100	2,700	\$60
Targeted Solar PV Expansion	Provide incentives to commercial behind-the-meter solar PV, targeting Long Island customers unable to access existing incentives.	30	100,000	\$45
Residential Home Energy Management	Provide targeted home energy reports and guidance to customers to reduce demand; 250,000 customers targeted.	10	25,000	\$8
Incremental Energy Efficiency Expansion	Target additional opportunities for cost effective technology and underserved customers.	10	41,200	\$30
Energy Conservation Program for Hospitals	Design and offer energy efficiency retrofit program tailored for hospital customers.	5	28,000	\$30
Energy Efficiency Expansion on the Rockaways	Offer energy efficiency enhancements for low-income multi-family housing, public facilities, and other customers on the Rockaways.	5	21,500	\$13
Combined Heat & Power	Provide incentives for commercial CHP installations, targeting Long Island customers unable to access existing incentives.	5	39,000	\$5
Geothermal Heating and Cooling	Expand rebates for geothermal heating and cooling systems.	5	7,800	\$9
Utility 2.0 Investment		170	265,200	\$200
South Fork Improvements³	Proceed with various energy efficiency, distributed generation, and direct load control investments, potential combined with battery storage, to defer needed transmission and peaking generation.	TBD	TBD	TBD
Large Customer Advanced Metering Initiative	Deploy advanced metering to 25,000 customers representing over 20% of the electric load on Long Island.	15	45,000	\$15
Capital Budget Investment		15	45,000	\$15
GRAND TOTAL		185	310,200	\$215

Notes:

1. These figures are illustrative, preliminary, and rounded. More detailed information on costs, benefits, and economic screening are provided in Appendix A.

2. PSEG Long Island proposes to finance up to \$200M of the proposed Utility 2.0 Plan. This would not include the South Fork Improvements or Large Customer Advanced Metering Initiative. PSEG Long Island proposes that these two projects would be included in the capital budget.

3. South Fork will also include many other facets that are not included in the above table because they will be paid over many years from fuel and purchased power charges. Some examples include potential installation of solar PV resulting from Clean Solar Initiative II and the 280 MW Renewable RFP. Moreover, additional peaking and storage resources may be selected as a result of the Generation, Energy Storage, and Demand Response RFP. PSEG Long Island can be available as backstop developer to the extent that the competitive markets do not provide sufficient solar PV and battery resources.

As reflected in note 1 to the table, these figures are illustrative and preliminary; actual investments may be greater or lesser than any particular program and will only be made to the extent that the program satisfies the benefit-to-cost criteria described below and in Appendix A to the Utility 2.0 Plan.

Cost Benefit Evaluation

As set forth in Appendix A of the attached Plan, PSEG Long Island proposes to evaluate the proposed near-term Utility 2.0 investments using a comparable avoided cost model, including potential benefits of avoided capacity and from a combined-cycle gas turbine power plant that represents the next real marginal unit of supply that the Authority would otherwise invest in to meet its needs. Under this test, as long as the investment's benefits to cost ratio meets or exceeds 1.1, it will be implemented. PSEG Long Island intends to use the Program Administrator Cost or "PAC" test as the primary cost-effectiveness test in analyzing viable investments. The total resource cost test or "TRC" will also be calculated, but will not be used as a primary determinant of whether or not to proceed. A further explanation of this cost/benefit test analysis and the reasons in support of this methodology over alternatives are contained in Appendix A of the attached Plan.

Proposed Investment Recovery Model

PSEG Long Island investment in Utility 2.0 end use measures and cost recovery are specifically contemplated by the OSA. In addition, utilizing PSEG Long Island capital to invest in Utility 2.0 Projects provides access to PSEG Long Island's low cost capital that is comparable to other New York utilities and avoids having LIPA further increase its debt.

Accordingly, PSEG Long Island is proposing two alternative investment recovery models that can be used to calculate the repayment by LIPA to PSEG Long Island, both of which are

driven by customer savings: (1) the Performance Driven Investment Recovery Model; or (2) the Savings Driven Investment Recovery Model. Each of these models is described briefly below and further in Section 1 and Appendix B and C of the Plan; in addition, as discussed more fully below, because PSEG Long Island is proposing to align investment recovery with the rate case to be filed in 2015, the proposed Plan will not have any rate impacts until 2016:

1. **Performance Driven Investment Recovery Model.** In this case, PSEG Long Island proposes a performance-driven approach using our low-cost capital, with returns aligned with other New York utilities, as envisioned by the OSA. PSEG Long Island would establish a base repayment schedule based on the approved size of the program and agreed-upon rate of return. This rate could increase or decrease based upon the cost-effectiveness of the program relative to a pre-determined target, as measured by the PAC test and verified by an independent third-party. Both the increase and decrease could be capped so that the return would not exceed an agreed upon threshold. The incentive payment would be adjusted based on the level of savings achieved. Appendix B contains a draft term sheet for this proposal and illustrative repayment schedule and performance multiplier.
2. **Savings Driven investment Recovery Model.** This case is an interim step towards valuing distributed resources more directly, an objective of the current REV proceeding. PSEG Long Island would be compensated based upon the deemed demand and energy savings of the program over the estimated life of the equipment, using the rates for avoided capacity and energy to value the investment. Deemed savings would be determined up front with verification from an independent third party. To the extent that the investment also deferred or displaced distribution investments, then that value would also be considered. Overall program returns that exceeded an agreed-upon threshold would be shared with customers, aligning incentives. Appendix C contains a draft term sheet for this proposal, proposed avoided costs from the Authority's benchmark studies, and an illustrative sharing mechanism.

Again, neither of these investment recovery models would have any rate impacts until 2016 because LIPA would not be required to commence payments to PSEG Long Island of the Utility 2.0 capital investments costs until after the resolution of the rate case required to be filed pursuant to the LIPA Reform Act and the OSA by February 1, 2015. After 2016, any upward rate impacts are expected to be minimal and offset by the anticipated benefits of the investments.

Financial/Rate Impacts

Insofar as PSEG Long Island is proposing a deferral of payments by LIPA associated with the Utility 2.0 capital investments until the resolution of the 2015 rate case, the proposed Utility 2.0 Plan, capital investments, and OSA changes will not have any current rate impacts because they will not require an increase to LIPA's revenue at this time. The revenue increases necessary to recover the costs of the Utility 2.0 reimbursements are expected to be included in the proposed revenue requirement in the 2018 rate case and any tariff changes required to implement any associated rate changes will also be proposed in that case. The 2015 rate case is expected to result in the implementation of new LIPA rates effective 2016.

The objective of the Utility 2.0 Plan is to lower total customer bills from what they would have been by lowering energy usage and deferring and/or avoiding the cost of supply and system improvements. PSEG Long Island's projections indicate that while the investment may marginally increase customer rates after the current rate freeze, the total costs are expected to be lower than they otherwise would have been due to avoided costs of supply and system investments that would have been required.

State Finance Law Approvals and Other Review

Implementation of PSEG Long Island's proposed Utility 2.0 Plan and associated economic structure will require a supplement to the OSA. Draft proposed term sheets are included with the Utility 2.0 Plan as Appendix B and C of the Utility 2.0 Plan. The supplemented OSA will require the review of the New York State Comptroller in accordance with Section 112 of the State Finance Law pursuant and Section 1020-cc of the LIPA Reform Act. Implementation of the Utility 2.0 Plan and associated capital investments are subject to the final approval by the State Comptroller, approval by LIPA and review by the DPS.

Request for Expedited Action

PSEG Long Island requests that the Authority's Board of Trustees approve this Proposal and the accompanying Utility 2.0 Plan by December 1, 2014. As set forth in the Plan, finalizing the terms of the initiatives contained in this Proposal and the attached Plan by this time will help to provide certainty in advance of the budgeting process and to help implement some of the proposed projects in advance of the 2018 summer peaking loads.

Proposed Tariff Changes

To the extent this Proposal and Plan are approved, tariff changes may be proposed as appropriate to incorporate project terms and conditions into the LIPA Electric Tariff. Again, because the proposed Plan does not involve a rate increase at this time, there are no rate changes that need to be reflected in the Tariff.

Public Notice and Involvement

Under the OSA, PSEG Long Island is required "to provide a public participation and comment process, and to hold at least one technical conference...." PSEG Long Island has planned a technical conference concerning this Proposal and the Utility 2.0 Plan at SUNY Stony Brook on July 24, 2014. Notice to the general public will also be provided. In addition, public comments will be solicited through a series of meetings held at various locations in Long Island, including within the Rockaways and South Fork load pockets, which have been identified for targeted Utility 2.0 investments. Public outreach will continue throughout the summer and subsequent annual updates to the Utility 2.0 Plan.

Summary of Proposed Changes

PSEG Long Island is requesting that LIPA approve a resolution no later than December 1, 2014 authorizing the capital investments by PSEG Long Island in LIPA's service territory in the described Utility 2.0 Projects over a four-year period commencing 2015 through 2018 in an amount up to \$200 million within the defined cost-benefit criteria as outlined in the attached Utility 2.0 Plan. PSEG further requests that LIPA approve the Utility 2.0 Plan as well as the term sheet and related supplement to the OSA that are needed to provide for the payment by LIPA to PSEG Long Island of compensation for PSEG Long Island's capital investments associated with the Utility 2.0 Projects.