



Via Electronic Mail: secretary@dps.state.ny.gov

August 29, 2014

Hon. Kathleen H. Burgess
Secretary
New York State Department of Public Service
3 Empire State Plaza
Albany, NY 12223-1350

Re: Matter Number 14-01299 - PSEG Long Island's Utility 2.0 Plan

Dear Secretary Burgess,

On behalf of Northeast Energy Efficiency Partnerships (NEEP),¹ thank you for the opportunity to provide comments on Matter Number 14-01299, the Utility 2.0 Plan as developed by PSEG Long Island (PSEG LI)², service provider to the Long Island Power Authority (LIPA).

NEEP is a regional non-profit whose mission is to serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education. Our vision is that the region will fully embrace energy efficiency as a cornerstone of sustainable energy policy to help achieve a cleaner environment and a more reliable and affordable energy system. NEEP is also one of six regional energy efficiency organizations (REEOs) designated by the U.S. Department of Energy to work collaboratively with them in linking regions of the country to DOE guidance and products.

Our organization has been closely involved in state regulatory proceedings relative to smart grid, modernizing transmission and delivery systems, and the evolving roles for utility companies and other energy service providers to meet emerging and future challenges. In 2012 and 2013, we served on a select working group established under Massachusetts Department of Utilities Order 12-76³ to address "grid modernization" in that state. We have also been following and working with state agencies, program administrators and fellow advocacy groups to engage in New York's "Reforming the Energy Vision" proceedings and related planning processes.

As states look to modernize their electricity grids – increasing resiliency, facilitating greater information availability and customer participation while ensuring security and affordability,

¹ These comments are offered by NEEP staff and do not necessarily represent the view of NEEP's Board of Directors, sponsors or underwriters.

² https://www.psegliny.com/files.cfm/2014-07-01_PSEG_LI_Utility_2_0_LongRangePlan.pdf

³ Order 12-76 opened an investigation into modernization of the electric Grid in 2012.

<http://magrid.raabassociates.org/Articles/D.P.U.NOI%2012.76.pdf>



and integrating renewable and other distributed generation resources – NEEP sees a clear role for robust and responsive energy efficiency policies and programs. To that end, we are very pleased with the emphasis on efficiency and other clean energy and demand response solutions in PSEG Long Island’s Utility 2.0 Plan.

NEEP reviews and comments on a great number of state, utility and program administrator energy plans, and in our opinion, PSEG LI’s plan is forward-looking, comprehensive and shows a good balance between serving key areas of need while harnessing clean energy sources and improving energy transmission and distribution (T&D) and services for all customers.

The plan’s focus on addressing overall peak demand and mitigating pocket load constraints, through targeted efficiency program approaches, can help Long Islanders save energy, control costs and reduce the need for costly new system investments. We appreciated the proposed holistic engagement with large end-users, and the integration of demand response, solar photovoltaics, and behavioral programs coupled with advanced controls, building weatherization and upgraded equipment.

As utility models evolve around the country, it is refreshing to see PSEG LI laying out a vision that acknowledges the company’s central role in delivering safe, affordable and reliable electricity – while also serving as a platform and conduit for ancillary energy services and product providers – some of which we have yet to even imagine.

This partnership between “pipes and wires” regulated utilities and a growing field of third-party market actors should enhance the customer experience – increasing their opportunities to understand and manage energy use, facilitate two-way communication with the utility to better manage peak usage, and identify and address outages and other service issues.

NEEP commends PSEG Long Island in general for the plan and appreciates the utility’s efforts to integrate it with the larger New York REV efforts. It is encouraging to see PSEG LI and LIPA closely following and seeking to align with and inform the REV proceedings, even though they are not regulated the same way as the state’s other ratepayer-funded efficiency program administrators.

We would like to call out some specific areas that exemplify the company’s vision, and that should be considered models for other New York program administrators as well as those in other states. While the Utility 2.0 Plan covers a range of terrific energy initiatives, NEEP will focus our comments on those that relate to energy efficiency programs and policies, as this is our core area of expertise.



Benefit/Cost Testing

NEEP is pleased to see PSEG LI's proposal that the Program Administrator Cost test or "PAC" serve as the primary screening tool, with the Total Resource Cost test or "TRC" as a point of reference. NEEP has been part of a growing community of energy efficiency experts who are questioning the ability of the TRC to adequately account for the full benefits of energy efficiency resources. This is particularly true for those benefits that are difficult to quantify in monetary terms, but deliver value to customers, such as improved customer comfort, reduced emissions, increased economic value in terms of increased productivity and job creation, deferred T&D costs, and system-wide price suppression.

While there is no "one-size fits all" solution for states and program administrators, the PAC is an equitable test that does not discount the many benefits of efficiency programs. As a reference, please see a recent study conducted by the Regional Evaluation, Measurement and Verification Forum hosted by NEEP,⁴ which reinforces these points.

Investment Recovery Model

PSEG LI emphasizes that expanded investments of up to \$200 million over the next three years will be of its own capital, and that there will be no customer rate impacts until 2016; with future additional costs expected to be minimal and offset by system-wide and as well as program participant benefits.

We see both the 'Performance Driven' and 'Savings Driven' investment recovery models as viable pathways to ensure the company sufficient revenues while delivering benefits to the people of Long Island. In particular, we appreciate that either plan would flatten rate impacts by spreading recovery over the life of efficiency measures, a long-term strategy that would be an important evolution from the current practice of on-bill recovery in a given program year. This advancement, as PSEG notes, will help remove disincentives to invest in clean energy.

Programmable Thermostat Program Modernization and Expansion

PSEG LI's programmable thermostat efforts should help to target and control peak electricity load, which is of growing concern across the Northeast due to fuel and system constraints that can drive up costs on peak. The question is whether more could be done to integrate these utility-controllable thermostats with other strategies — behavioral programs, remote data access by customers (on smart phones) and variable time pricing, for example — to reduce overall demand and not simply peak demand.

⁴ "Energy Efficiency Cost-Effectiveness Screening in the Northeast and Mid-Atlantic States," Synapse Energy Economics, October 2013. http://www.neep.org/Assets/uploads/files/emv/emv-rfp/emv-products/EMV_Forum_C-E-Testing_Report_Synapse_2013%2010%2002%20Final.pdf



Similarly, advanced power strips (APS) or “smart plugs” can help the utility manage cooling loads from room air conditioners. NEEP recommends that PSEG LI specify Tier 2 APS products as they have the capacity to actively manage the power from their plugged devices, rather than Tier 1 APS products, which are passive.

Behavioral Programs and other Home Energy Management Solutions

NEEP respectfully encourages PSEG Long Island to not only ramp up the number of customers in their home energy report program, but also to look to build on and expand these behavioral offerings to incorporate even more dynamic and automated forms of customer engagement.

On the home energy reports, one vendor that offers programs across various New York service territories estimates that they could cost-effectively reach 79 percent of the households in the state. Looking at PSEG LI’s 1.1 million customers, that would be nearly 870,000 households served.⁵ While 250,000 households are slated to eventually receive home energy reports, we see room for that number to grow in the coming years. Programs aimed at educating and inducing smart energy choices have been demonstrated to deliver very cost-effective savings as part of a broader program portfolio.⁶

As stated above, we also encourage PSEG LI to expand its Residential Home Energy Management programs to incorporate things like advanced metering, smart thermostats, web-enabled customer interface, and interval usage data to provide even more information and price signals to drive savings. Another idea: some efficiency programs have successfully piloted “energy coach” programs that proactively reach out to discuss the new streams of information the customer is receiving.

Third-party vendors and their utility partners are growing ever more sophisticated in how they communicate with customers, and how they use energy data to drive customer level savings and uncover larger areas of opportunities – while ensuring customer privacy and data security.

We also welcome PSEG Long Island’s participation in NEEP’s Home Energy Management Systems (HEMS) stakeholder working group, which started in 2014 out of program administrator interest in the potential of this measure. PSEG LI is already represented in a

⁵ More information on Opower’s savings potential at <http://opower.com/beepotential/>

⁶ For an overview of recent evaluations of home energy report programs, see VEIC, Letter to Susan Hudson, Vermont Public Service Board, January 31, 2014, Attachment A: <http://psb.vermont.gov/sites/psb/files/projects/EEU/drp2013/EEU-2013-01%20VEIC%20Supplemental%20Information-Attachment%20A.pdf>



number of other NEEP-led working groups on various EM&V topics as well as residential products, among others.

Increased Solar a Good Match for Electric Heat Pumps

Targeted solar installations are a smart way for PSEG LI to address system congestion while diversifying generation and reducing emissions. NEEP would be interested to hear more about how the company couples energy efficiency programs and services with solar incentives. A best practice is for customers interested in pursuing renewable energy incentives to be directed to explore energy efficiency in tandem with solar and other clean energy resources, both as a means of increasing efficiency in and of itself, but also “right-sizing” any potential solar installations by first reducing energy use to the greatest extent possible.

Our experiences have shown us that a good match for onsite solar generation is electric air source heat pumps. While ground source heat pumps can reduce energy consumption 44 percent, as the plan notes,⁷ they are far more expensive and location-dependent than are air source heat pumps.

Based on our reading of the plan, air source heat pumps are not currently part of PSEG Long Island’s program portfolio, while we did see them offered for PSEG’s New Jersey customers.⁸ Heat pumps are a highly promising technology gaining greater customer awareness and market penetration across the Northeast.

Air source heat pumps for heating and cooling can cost half as much to operate as a conventional HVAC systems, while generating 60 percent less CO₂. We note that the ENERGY STAR® rating by itself may not be enough to differentiate products that perform well during Long Island’s heating season.

If consumer expectations are to be met, it is important that specifications do a better job of recognizing the cold climate issues. As such, we would encourage program planners to review NEEP’s Air Source Heat Pump working group recommendations on this topic.⁹

Expanded Efficiency and Further Product Suggestions

We were glad to see PSEG Long Island’s intention of scaling up programs through expanded offerings, new technologies and deep energy retrofits. Targeted initiatives for hospitals and

⁷ https://www.psegliny.com/files.cfm/2014-07-01_PSEG_LI_UTILITY_2_0_LongRangePlan.pdf, Page 3-25.

⁸ <http://www.njcleanenergy.com/residential/programs/cooladvantage/cooladvantage-program>

⁹ <http://www.neep.org/efficient-products/emerging-technologies/Air-Source-Heat-Pumps/index>



areas of load congestion like the Rockaways, advanced metering for large customers and a focus on combined heat and power are all program strategies that NEEP supports.

Tactics like time-variable rates and continual integration of advanced products, as well as looking to and learning from other program administrators in the region, will help PSEG LI maximize savings and customer benefits, as a greater percentage of end-users are served by efficiency programs.

In addition to the products mentioned, NEEP would like to highlight these opportunities for PSEG Long Island consider in its upcoming program planning:

Clothes Dryers - The next generation of clothes dryer technology is coming soon to the North American market, as ENERGY STAR® will have two specifications in 2015 for clothes dryers. We encourage PSEG LI to work with NEEP and the Super-Efficient Dryer Initiative (SEDI) initiative to explore new dryer programs. As this will be the first opportunity for programs to achieve savings through dryers, it is important for New York's program administrators to work with others in the region and nationally to leverage common opportunities and learn from each other.

Heat Pump Water Heaters - As this market develops, we encourage the programs to continue strong marketing promotion, as well as more contractor education on how and where to install heat pump water heaters. We emphasize the need for additional research on installation location conditions and how the performance and efficiency of various water heaters are affected by varying conditions.

It is important at this early stage of market development that we identify and promote only products that perform up to consumer expectations, including those installations that might not be in ideal conditions. In terms of a specific recommendation, NEEP suggests that the PSEG LI programs utilize information like low temperature cut off that ENERGY STAR® will be reporting as part of new specification's released next year to guide consumer purchases.

Lighting - While the plan mentions lighting under expanded programs, details were not necessarily evident to show whether PSEG LI's plans for residential lighting involve migrating from traditional CFLs to new LED technologies. While initial investments to incentivize these technologies may be significant, the associated savings will be substantial. Residential lighting controls, as in the case of Home Energy Management Systems, are seen as a further option for gaining even more savings from already efficient products.

'Big Data' and New Market Strategies - NEEP sees the potential of leveraging new IT capabilities, granular and real-time energy data, closed-loop marketing and generally new modes of structuring programs (e.g. up-stream) as hot topics in the coming years, as program



administrators look to find innovative ways to make the programs more cost-effective. To that end, we hope that PSEG LI staff will continue to stay involved in NEEP's Market Strategies program activities to take advantage of the best practices and shared learning that will drive these markets.

Conclusion

NEEP applauds PSEG Long Island for seeking new and integrated ways of meeting electric demand and improving customer communication, choices and service quality, while addressing important goals of increasing resiliency, grid hardening and emission reductions – through an array of complex supply and demand side energy solutions.

Today's business and residential customers want more from their utility provider, and public policy goals demand better planning and coordination to meet emerging resource demands – tapping peak load management and permanent reduction with energy efficiency and renewable resources.

We congratulate PSEG Long Island for this thoughtful plan, and encourage the company to continue to working regionally – not only with other New York service providers, the PSC and NYSEDA – but also in partnership with regional initiatives on products, market development, and evaluation, measurement and verification.

NEEP will continue to follow and engage in PSEG Long Island's efforts and other important New York energy proceedings, and stands ready to offer support and regional perspectives whenever we are called. Thank you again for the opportunity to provide comments on the Utility 2.0 Long Range Plan.

A handwritten signature in blue ink that reads "Natalie Hildt Treat".

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