

PEOPLE'S Power & Light

August 9, 2016

Luly E. Massaro, Clerk
89 Jefferson Blvd.
Warwick, RI 02888

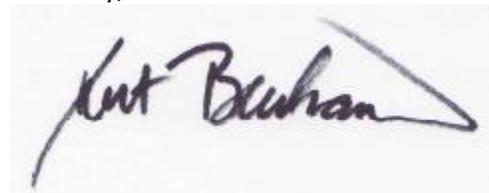
Re: Docket No. 4600 - Stakeholder Comments from People's Power & Light

Dear Ms. Massaro,

Thank you for the opportunity to reflect and submit comments related to Docket No. 4600. As you consider rate-making in Rhode Island, we ask you to also consider the recommendations included herein.

We appreciate your time and attention to this matter. People's Power & Light (PP&L) looks forward to participating in the upcoming stakeholder meeting.

Sincerely,

A handwritten signature in black ink that reads "Kat Burnham". The signature is written in a cursive style with a long, sweeping underline that extends to the right.

Kat Burnham
Energy Programs Manager

People’s Power & Light Comments Regarding Docket No. 4600

People’s Power & Light (PP&L) is a Rhode Island non-profit dedicated to making energy more affordable and environmentally sustainable. We advocate on behalf of our members and the environment and are dedicated to helping the state reduce greenhouse gas emissions 80% by 2050 in the most economically advantageous ways possible.

General Comments on Rate Making

Many utilities have demonstrated interest in transitioning towards bills that favor higher fixed rates and lower volumetric charges. This was recently clear in the 2015 PUC Docket 4568¹. We are still concerned about the possibility that the utility will gravitate towards a fixed rate rather than a dynamic or customized approach. Increasing the proportion of fixed rates on customer bills or requiring a “minimum bill” disproportionately harms low-energy users and low-income users. PP&L strongly advises against a shift in the direction. An increase of the fixed portion of a customer’s electric bill acts as a disincentive for energy efficient choices.

For future rate making proceedings, it is our sincere hope that planners will move to make rates more customized and “smart” to help reduce energy consumption widely and to properly compensate distributed generation. Experts agree that the rates of the future ought to offer more choices for customers. With new technologies tapping into the grid infrastructure, a new approach to properly value the benefits and costs of these entities is needed.

Policy Proposals and Scope Recommendations

PP&L recommends that all rate making proceedings put changes in the context of how they will impact the greenhouse gas (GHG) emission goals of the Resilient RI Act. To reach 80% GHG emissions reductions by 2050, as well as the interim targets, comprehensive rates should be designed to enable customers to reduce consumption of polluting and expensive fossil fuel sources.

Another policy proposal is to encourage the Rhode Island PUC to adopt a formal grid modernization docket. Effective rate modernization efforts run parallel to the transformation of the electric grid and many of the same key players would be involved. Other states, such as Massachusetts and New York are actively trying to tackle this issue. Massachusetts DPU Order 12-76² required in-state utilities to submit a 10-year grid modernization plan to demonstrate how the utility envisions a plan to integrate distributed resources and reduce the system costs, among other objectives. The New York ‘Reforming Energy Vision’ (REV) is a strategy to overhaul the state’s regulation of the distribution utilities and improve the system reliability. While these approaches may not be perfect, they offer some guidance. An order explicitly devoted to grid modernization is also needed to ensure Rhode Island sees a cohesive and timely transition.

Modernizing the Grid for Public Benefit

The rate proceedings and utilities of the future will have to adapt eventually to changing technologies and customer needs. Rhode Islanders are increasingly installing smart thermostats, light bulbs, plug loads, appliances, solar power and electric vehicles. We can expect to see more consumers install storage systems in the near future. All of these efforts have the potential to reshape the peak loads stressing the Rhode Island grid.

¹ <http://www.ripuc.org/eventsactions/docket/4568page.html>

² <http://www.mass.gov/eea/docs/dpu/electric/12-76-a-order.pdf>

Time Varying Rates & Advanced Meters

It is time to transition to time varying rates and widespread adoption of smart meters. Potential benefits include deferred resource costs, more choices for customers, and more transparent pricing of electricity. There are already several pilots³ across the US, reviewing time varying rates and demand response. A notable pilot is underway by National Grid in Worcester, Mass. If a pilot is initiated in Rhode Island, it should only be done after analysis points to a need for more data collection and information rather than universal (opt-out) deployment.

Location-Specific

Another potential research opportunity could focus on the value of distributed generation on the grid in regards to locational granularity. Rhode Island's energy system has reliable capacity, but in certain strained locations, it could greatly benefit from additional distributed generation to prevent future expensive infrastructure costs.

Energy Storage

Another pilot possibility could be to analyze the use of water heaters⁴ as an energy storage source to manage the system load. Controlling a smart water heater, as advised by the Regulatory Assistance Project⁵, is another way to reduce peak demand and improve system reliability. Additionally, electric vehicles (EVs) could offer a similar service and could be another pilot option. Both technologies potentially offer off-peak charging and on-peak power generation. Such a program would require a rate structure that includes demand response so that the water heaters or plugged in vehicles can be called upon when there is additional distributed generation on the grid. PG&E⁶ established a pilot in 2015 to study rewarding vehicle owners for using batteries to help manage the electric grid. Local planners could create a similar pilot that is Rhode Island-specific in its scope.

Comments on Existing Program Management

Tests and Evaluations

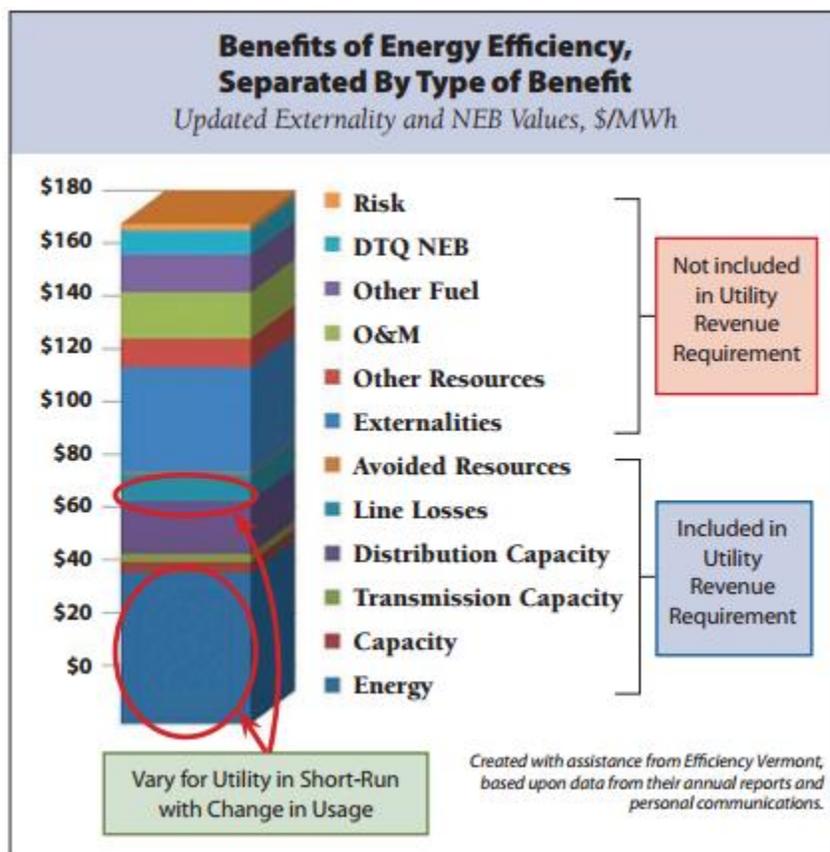
Existing program evaluation relies heavily on the Total Resource Cost (TRC) test. While it is helpful in quantifying several energy and some non-energy items, the TRC is limiting in its scope and does not adequately account for the full range of benefits of distributed generation or energy efficiency. It is necessary to change to a screening tool that properly evaluates a wider range of costs and benefits associated with rate design. The majority of non-energy benefits (NEB) are likely not well quantified under the current evaluations.

³ <http://www.synapse-energy.com/sites/default/files/Comments-Time-Varying-Rates-14-025.pdf>

⁴ <http://www.steffes.com/LiteratureRetrieve.aspx?ID=115580>

⁵ <http://www.raponline.org/wp-content/uploads/2016/05/rap-lazar-teachingtheduck2-2016-feb-2.pdf>

⁶ https://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20150105_pge_and_bmw_partner_to_extract_grid_benefits_from_electric_vehicles



Source: Lazar, J. and Gonzalez, W. (2015). Smart Rate Design for a Smart Future. Montpelier, VT: Regulatory Assistance Project.

Greenhouse Gas Abatement

An important example of non-energy benefits is the value of avoiding GHG emissions. Currently, the calculation of benefits derived from the efficiency programs take into account the avoided cost of allowances from the Regional Greenhouse Gas Initiative (RGGI). This avoided cost is ridiculously low compared to the true cost of reducing emissions to the extent necessary under the Resilient RI Act passed in 2014. We strongly recommend adoption of a methodology that would recognize the marginal cost of abating GHG emissions sufficient to meet Resilient RI targets on a straight line from today’s level to 2050. Such a methodology was proposed by the Massachusetts Departments of Environmental Protection and Energy Resources in 2014⁷. As technologies and markets change, the methodology allows for a recalculation based on the best available information at the time. However, it is clear from that docket and from other research that the benefits of efficiency should include a value for reduced emissions several times higher than the value associated with RGGI allowances.

⁷ DPU Docket 14-86 at <http://web1.env.state.ma.us/dpu/filerroom/dockets/bynumber>.

Energy Assistance Programs

Energy efficiency programs for financially vulnerable populations help on two fronts: the reduced energy usage cuts down on the cost of subsidization and those customers enjoy a lower electricity bill. A 2014 ACEEE study⁸ found that “compared to average households, low-income households are less likely to have compact fluorescent bulbs and low-flow showerheads, but 25% more likely to have energy-intensive space heaters and 50% more likely to rely on window air conditioning units”. The efficiency and weatherization programs are essential resources to low-income residents to reduce the burden of electricity costs. Management of the current programs helps many Rhode Islanders but more could be done to ensure folks who need assistance are properly enrolled. Residents who earn 60-80% of median income and renters also could benefit from programs specific for their needs.

Final Considerations

Rhode Island has the “Least Cost Procurement” mandate which explicitly declares that the state should invest in all cost-effective energy efficiency if it is cheaper than the supply of energy. To honor this obligation, planners need to adjust the rate structure to ensure there is adequate funding for effective efficiency programs. There is more cost-effective efficiency to be had; Rhode Island can prevent dollars from leaving the state for expensive energy sources or expensive infrastructure if we make smart investments now. Expansion of weatherization programs, especially for residents and businesses that heat with oil, can offer major benefits to the Rhode Island economy. A commitment of efficiency programs to long-term investments and a longer payback yields a stronger benefit-cost ratio and serves to reduce emissions from energy consumption.

Rhode Island may only have a handful of distributed generation projects online currently, but that is quickly changing. The Renewable Energy Growth program alone is committed to installing 160 MW of local renewable projects in Rhode Island. Recent legislation allows virtual net metering and third party financing which is also anticipated to increase solar arrays across the state. Our load shape and energy mix will likely change dramatically in the next few years. Understanding the storage and peak shaving potential of water heaters or EVs could impact how energy planners value and compensate that resource in electric rates in the future. An appropriate demand response structure and a new rate structure are needed to accommodate changes to our energy system.

For questions regarding these comments, please contact Kat Burnham, kat@ripower.org, 401-861-6111 x 202.

⁸ <http://aceee.org/files/proceedings/2014/data/papers/7-287.pdf>